



*Project Managers,  
Chartered Civil, Structural, Transport  
and Building Services Engineers*

## **Tipperary Co Co**



### **Equipment Data Sheets for the Electrical Services**

**Installation at:**

**Cahir Digital Hub**

**Cahir, Co Tipperary**

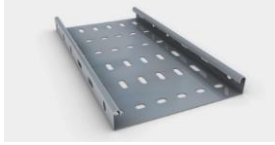
|                             |               |
|-----------------------------|---------------|
| <b>Purpose of Issue</b>     |               |
|                             |               |
| <b>Revision</b>             | T1            |
| <b>Date</b>                 | 27 March 2026 |
|                             |               |
| <b>Prepared By</b>          |               |
|                             |               |
| <b>Name</b>                 | JM            |
|                             |               |
| <b>Checked By</b>           |               |
|                             |               |
| <b>Name</b>                 | DG            |
|                             |               |
| <b>Approved By</b>          |               |
|                             |               |
| <b>Name</b>                 | PP            |
|                             |               |
| <b>Document Information</b> |               |
|                             |               |
| <b>Project Number</b>       | 21ME006       |
|                             |               |

| Electrical Equipment Data Sheets |                                   |
|----------------------------------|-----------------------------------|
| Number                           | Equipment                         |
| 1                                | General                           |
| 2                                | Distribution Containment          |
| 3                                | General Distribution              |
| 4                                | Lighting                          |
| 4a                               | Lighting Controls                 |
| 5                                | Phone & Data                      |
| 6                                | Public Address and Induction Loop |
| 7                                | Access Control                    |
| 8                                | CCTV                              |
| 9                                | Fire Alarm                        |
| 10                               | Surge Protection                  |
| 11                               | Lightning Protection              |
| 12                               | Switchboards                      |
| 13                               | Energy Meters                     |
| 14                               | Cabling                           |

| Data Sheet No.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |             |                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|----------------------|
| Project:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Cahir Digital Hub | Data Sheet: | General Requirements |
| Project No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 21ME006           | Revision:   | T1                   |
| Client:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Tipperary Co Co   | Date:       | 27 March 2026        |
| <p><b>Equipment must be supplied from companies that meet the following Minimum Requirements:</b></p> <p>All equipment must be fit for the intended purpose and suitable for the weather conditions found at the site.<br/>           All equipment must comply with all statutory regulations and requirements.<br/>           All suppliers proposed must be able to provide a technically competent representative who is capable of fully understanding the equipment provided and advising on commissioning and perational information.<br/>           Any equipment that belongs to a technology that falls under the Triple E scheme shall either be listed on the Triple E register or shall comply with the Triple E criteria for that technology</p> <p><b>Warranties</b></p> <p>Provide warranties / extended warranties for all equipment for a period of at least 15 months beyond the date of practical completion .</p> <p><b>Note:</b></p> <p>It shall be the duty of the contractor to check that equipment proposed fully meets the specifiction<br/>           Any items installed that do not meet the specification shall be removed and replaced<br/>           At no cost to the contract<br/>           All plant shall contain the CE mark<br/>           References above to equipment shall also refer to plant and components.</p> |                   |             |                      |

## Data Sheet No.2

|             |                          |             |                                 |
|-------------|--------------------------|-------------|---------------------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>Distribution Containment</b> |
| Project No. | <b>21ME006</b>           | Revision:   | <b>T1</b>                       |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b>            |

| Cable Tray                                                                                                                                                                                                                      |                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                       |                                                                                     |
| Medium Duty Cable tray to BS 61537:2007<br>Type = Post Galvanised to BS EN ISO 1461:1999.<br>Size = 225mm & 100mm (W) x 13.5mm (H)<br>Weight (kg/m) = 5.58@225mm & 2.94@100mm<br>Multiple Reducer, Bend, Tee and Riser options. | Photos                                                                              |
| Notes                                                                                                                                                                                                                           |  |
|                                                                                                                                                                                                                                 |                                                                                     |

| Cable Trunking                                                                                                                                                                                                                                           |                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                |                                                                                     |
| Type = Hot Dip Galvanised to BS EN 10346:2009<br>Size = 3 x 75mm(W) x 75mm (H)<br>Stock lengths = 3000mm<br>BS EN 50085-1:2005 compliant.<br>Multiple Elbows, Bends, Tee and Bracket options.<br>End caps supplied with each end.<br>Screw fixing system | Photos                                                                              |
| Notes                                                                                                                                                                                                                                                    |  |
|                                                                                                                                                                                                                                                          |                                                                                     |

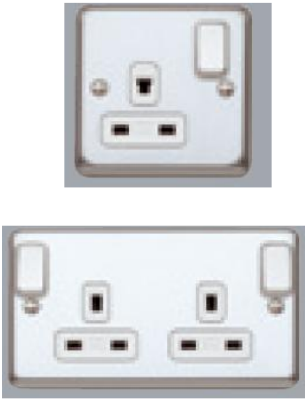
| Wire Mesh Tray                                                                                                                                                                                                                                                                    |                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                         |                                                                                       |
| Type = Hot Dip Galvanised after manufacture to EN ISO 1461 standard.<br>Size = 100mm & 50mm (W) x 55mm (H)<br>Weight (kg/m) = 0.713@100mm & 0.632@50mm<br>Stock lengths = 3000mm<br>EN 61537 clause 6.3 compliant.<br>Multiple support mounting options.<br>90D M h T B d i h i d | Photos                                                                                |
| Notes                                                                                                                                                                                                                                                                             |  |
|                                                                                                                                                                                                                                                                                   |                                                                                       |

| Conduit and Boxes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                   |
| <p>Made from Grade Q195 Steel</p> <p>Tubes are full formed and electrical resistance welded</p> <p>Hot dipped galvanised to BS EN 61386 Class 4</p> <p>Resistance to compression: Heavy Grade - Classification 5</p> <p>Resistance to impact: Heavy Grade - Classification 5</p> <p>Tensile Strength: Heavy Grade - Classification 5</p> <p>Standards: BS 4568-1, BS EN 61386-21</p> <p>Boxes are galvanised after manufacture meeting Class 4 corrosion protection standard</p> <p>Boxes c/w tapped M4 hole for earth terminal in base</p> | <p>Photos</p>  |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                   |
| Installation is to be completed using all accessories from the same manufacturer and class                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                   |

## Data Sheet No.3

|             |                          |             |                             |
|-------------|--------------------------|-------------|-----------------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>General Distribution</b> |
| Project No. | <b>21ME006</b>           | Revision:   | <b>T1</b>                   |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b>        |

| Dado Trunking                                                                                                                                                                                                                                                                                                                                                  |                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                      |                                                                                               |
| 3 Compartment Contour Trunking<br>Material : high impact self-extinguishing PVC-U<br>Trunking assembly: 195 x 50 mm<br>Body, lids and dividers included in 3m lengths<br>Lid width : 2 x 42 curved + 1 x 85 mm<br>Fitting allowances: End caps; Internal angles; External angle; Flat angle;<br>Flat tee;<br>Bridge for flat tee<br>C/W Clip-in steel dividers | Photos<br> |
| Notes                                                                                                                                                                                                                                                                                                                                                          |                                                                                               |
| Manufacturer : MK or equal and approved<br>Product: 3D Antibac Blue or equal and approved                                                                                                                                                                                                                                                                      |                                                                                               |

| Socket - 1&2 Gang Wall mounted                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                 |
| For recessed wall mounted sockets<br>Brushed chrome finish<br>Contoured at the top to blend into the Wall<br>Double Pole Switching<br>3mm Switch Contact Gap<br>Dual earth terminals<br>1 GANG: 86 x 86mm<br>2 GANG: 86 x 146 mm<br>Terminal capacity:<br>3 x 2.5mm <sup>2</sup><br>3 x 4mm <sup>2</sup><br>2 x 6mm <sup>2</sup> (stranded)<br>Outboard rockers<br>3-PIN Child Resistant Shutter System<br>BS 1363-2:2016+A1:2018 | Photos<br> |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                 |
| Manufacturer : MK Albany Plus (or equivalent & approved)                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                 |

| Socket - 2 Gang Dado                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                   |
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                   |
| <p>Made from a high gloss, high grade thermoset material which has an inherent antimicrobial property .</p> <p>Contoured at the top to blend into the Wall or Dado</p> <p>3-PIN Child Resistant Shutter System</p> <p>Double Pole Switching, 13A Socket</p> <p>3mm Switch Contact Gap</p> <p>Dual earth terminals</p> <p>BS 1363 Pt 2: 1995</p> <p>1 GANG: 86 x 86mm</p> <p>2 GANG: 86 x 146 mm</p> <p>Terminal capacity:</p> <ul style="list-style-type: none"> <li>3 x 2.5mm<sup>2</sup></li> <li>3 x 4mm<sup>2</sup></li> <li>2 x 6mm<sup>2</sup> (stranded)</li> </ul> <p>Outboard rockers</p> <p>3-PIN Child Resistant Shutter System</p> <p>BS 1363-2:2016+A1:2018</p> <p>Graphite coloured socket outlet to be used on white dado trunking.</p> | <p>Photos</p>  |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                   |
| <p>Manufacturer: MK Logic Plus (or equivalent &amp; approved)</p> <p>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                   |

| Industrial Socket - 1 Gang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                     |
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                     |
| <p>IP44 Rated</p> <p>PBT (Polybutylene Terephthalate) or Nylon (Polyamide PA) insulated or aluminium housing</p> <p>Surface mounted Angled Socket</p> <p>Top conduit (M25) or rear cable entry, complete with blanking plug.</p> <p>Double Pole Switched Single Socket Outlet to 16/32/63A as required</p> <p>1 GANG: 91 x 79 x 100mm</p> <p>TERMINAL CAPACITY: As required</p> <p>Contact pins and sleeves are of solid brass with stainless steel springs to keep contacts free of dirt and to ensure constant contact pressure.</p> <p>IEC.60309: 1997</p> <p>BS EN 60309:2007+A1:2012</p> | <p>Photos</p>  |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                     |
| <p>Manufacturer : MK Commando</p> <p>All industrial equipment to be from the same manufacture and same product range.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                     |

| Fuse Spur Outlet - Switched                                                                                                                                                                                                                                                                                                                    |                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>Performance Specification</b>                                                                                                                                                                                                                                                                                                               |                                                                                                      |
| For recessed wall mounted outlets<br>Brushed chrome finish<br>Contoured at the top to blend into the Wall<br>Can be padlocked for safety<br>Double Pole Switched 13A Fused Outlet With Neon<br>1 GANG 86 x 86mm<br>TERMINAL CAPACITY: 2 x 6mm <sup>2</sup> stranded (max)<br>BS 1363-4:2016+A1:2018<br>With or without flex outlet as required | <b>Photos</b><br> |
| <b>Notes</b>                                                                                                                                                                                                                                                                                                                                   |                                                                                                      |
| Manufacturer : MK Albany Plus (or equivalent & approved)                                                                                                                                                                                                                                                                                       |                                                                                                      |

| Fuse Spur Outlet - Unswitched                                                                                                                                                                                                                                                                       |                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Performance Specification</b>                                                                                                                                                                                                                                                                    |                                                                                                        |
| For recessed wall mounted outlets<br>Brushed chrome finish<br>Contoured at the top to blend into the Wall<br>Can be padlocked for safety<br>Double Pole Switched 13A Fused Outlet With Neon<br>1 GANG 86 x 86mm<br>TERMINAL CAPACITY: 2 x 6mm <sup>2</sup> stranded (max)<br>BS 1363-4:2016+A1:2018 | <b>Photos</b><br> |
| <b>Notes</b>                                                                                                                                                                                                                                                                                        |                                                                                                        |
| Manufacturer : MK Albany Plus (or equivalent & approved)                                                                                                                                                                                                                                            |                                                                                                        |

| Switches                                                                                                                                                                                                                                                               |                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Performance Specification</b>                                                                                                                                                                                                                                       |                                                                                                        |
| Colours : White or Red or Black (As required)<br>Do not have to be derated when used with fluorescent or inductive loads.<br>BS EN 60669 -1 : 2018<br>10 Amp Two-Way<br>Fish key supplied with each switch<br>Push or Push to Make or Rocker or Fish Key (As required) | <b>Photos</b><br> |
| <b>Notes</b>                                                                                                                                                                                                                                                           |                                                                                                        |
|                                                                                                                                                                                                                                                                        |                                                                                                        |

| Grid Plate                                                                                                                                         |                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                                                                                                                                    |                                                                                               |
| Performance Specification                                                                                                                          |                                                                                               |
| Brushed chrome finish.<br>Wide rockers<br>1 - 4 Modules as required<br>3 & 4 Module: 86 x 146mm<br>1 & 2 Module: 86 x 86mm<br>BS 5733:2010+A1:2014 | Photos<br> |
| Notes                                                                                                                                              |                                                                                               |
| Manufacturer : MK Albany Plus (or equivalent & approved)                                                                                           |                                                                                               |

| H/O/A or A/O Switch                                                                                                                                                                                                                                              |                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                  |                                                                                                |
| Performance Specification                                                                                                                                                                                                                                        |                                                                                                |
| Brushed chrome finish<br>Double Pole Key Operated 20A Switch<br>Flush: 51mm<br>1 GANG: 86 x 86 x 51mm<br>FIXING CENTRES: 1<br>TERMINAL CAPACITY: 2 x 6mm <sup>2</sup> stranded (max)<br>Fits flush with the backbox giving chamfered edges<br>BS EN 60669-1:2018 | Photos<br> |
| Notes                                                                                                                                                                                                                                                            |                                                                                                |
| Manufacturer : MK Albany Plus (or equivalent & approved)                                                                                                                                                                                                         |                                                                                                |

| Double Pole Isolation Switch                                                                                                                                                               |                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                            |                                                                                                 |
| Performance Specification                                                                                                                                                                  |                                                                                                 |
| Brushed chrome finish<br>32A DP SWITCH WITH NEON<br>Earth terminal fitted in base of box.<br>DIMENSIONS: 86 x 86mm<br>TERMINAL CAPACITY: 1 x 10mm <sup>2</sup> (max)<br>BS EN 60669-1:2018 | Photos<br> |
| Notes                                                                                                                                                                                      |                                                                                                 |
| Manufacturer : MK Albany Plus (or equivalent & approved)                                                                                                                                   |                                                                                                 |

| Double Pole Isolation Switch                                                                                                                                                               |                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                                                                                                                                                                            |                                                                                               |
| Performance Specification                                                                                                                                                                  |                                                                                               |
| Brushed chrome finish<br>32A DP SWITCH WITH NEON<br>Earth terminal fitted in base of box.<br>DIMENSIONS: 86 x 86mm<br>TERMINAL CAPACITY: 1 x 10mm <sup>2</sup> (max)<br>BS EN 60669-1:2018 | Photos<br> |
| Notes                                                                                                                                                                                      |                                                                                               |
| Manufacturer : MK Albany Plus (or equivalent & approved)                                                                                                                                   |                                                                                               |

| Three Phase Isolator Switch                                                                                                                                                                                                                                                                                                |                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                            |                                                                                                |
| Performance Specification                                                                                                                                                                                                                                                                                                  |                                                                                                |
| Brushed chrome finish<br>Utilisation category of AC22A – switching of mixed resistive and inductive loads including moderate overloads for a continuous duty of 32 amps.<br>Making capacity is 2000 amps peak.<br>TERMINAL CAPACITY: 16mm <sup>2</sup> conductors.<br>DIMENSIONS: 146 x 86mm<br>BS EN 60947-3:2009+A2:2015 | Photos<br> |
| Notes                                                                                                                                                                                                                                                                                                                      |                                                                                                |
| Manufacturer : MK Albany Plus (or equivalent & approved)                                                                                                                                                                                                                                                                   |                                                                                                |

| Data Grid Plate                                                                                                                                                           |                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
|                                                                                                                                                                           |                                                                                                 |
| Performance Specification                                                                                                                                                 |                                                                                                 |
| Brushed chrome finish<br>2 Module: 86 x 86mm<br>BS 5733:2010+A1:2014<br>Surface mounted Curved design<br>Two Module<br>Fits flush with the backbox giving chamfered edges | Photos<br> |
| Notes                                                                                                                                                                     |                                                                                                 |
| Manufacturer : MK Albany Plus (or equivalent & approved)                                                                                                                  |                                                                                                 |

| IP66 Socket - 2 Gang                                                                                                                                                                                                                                                                                                        |                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>Performance Specification</b>                                                                                                                                                                                                                                                                                            |                                                                                                      |
| Polycarbonate ingress protected Socket<br>Double Pole Switched 13A Double Socket Outlet with Neon<br>2 gang: 157 x 175 x 89mm<br>Manufactured from polycarbonate<br>Gel Seal<br>Socket Sealed inuse with any standard 13 Amp Plug<br>IP66 rated<br>Colour : Grey<br>BS 1363-2:2016+A1:2018<br>IP66 BS EN 60529:1992+A2:2013 | <b>Photos</b><br> |
| <b>Notes</b>                                                                                                                                                                                                                                                                                                                |                                                                                                      |
| Manufacturer : Legrand, MK Masterseal<br>All Metal Clad equipment to be from the same manufacture<br>and same product range.                                                                                                                                                                                                |                                                                                                      |

| Cavity Floor Box                                                                           |                                                                                                       |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Performance Specification</b>                                                           |                                                                                                       |
| 4 Compartment floor box bases, manufactured in pre-galvanised steel and polycarbonate/ABS. | <b>Photos</b><br> |
| <b>Notes</b>                                                                               |                                                                                                       |
| C/W Lid & Trim with the finish approved by the Architect                                   |                                                                                                       |

| IP66 Light Switch                                                                                                                                                                            |                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Performance Specification</b>                                                                                                                                                             |                                                                                                        |
| Polycarbonate ingress protected Switch<br>10 amp 2 way<br>IP66 rated<br>95 x 95 x 57mm<br>Colour : Grey<br>BS EN 60529:1992+A2:2013<br>BS EN 60669-1:2018<br>Manufactured from polycarbonate | <b>Photos</b><br> |
| <b>Notes</b>                                                                                                                                                                                 |                                                                                                        |
| Manufacturer : Legrand, MK                                                                                                                                                                   |                                                                                                        |

| Emergency Knock-off                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                               |
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                               |
| yellow station - 1 red mushroom head pushbutton Ø40 turn to release 2NC<br>Colour of base of enclosure Light grey (RAL 7035)<br>Colour of cover Yellow (RAL 1021)<br>Material Polycarbonate<br>Operating force 44 N<br>Mechanical durability 300000 cycles<br>Electrical reliability $\Lambda < 10\exp(-6)$ at 5 V, 1 mA conforming to EN/IEC 60947-5-4<br>$\Lambda < 10\exp(-8)$ at 17 V, 5 mA conforming to EN/IEC 60947-5-4<br>Overvoltage category Class II conforming to IEC 60536<br>IP degree of protection IP66 conforming to IEC 60529 | Photos<br> |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                               |
| Manufacturer : Schneider or similar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                               |

## Data Sheet No.4

|             |                   |             |               |
|-------------|-------------------|-------------|---------------|
| Project:    | Cahir Digital Hub | Data Sheet: | Lighting      |
| Project No. | 21ME006           | Revision:   | T1            |
| Client:     | Tipperary Co Co   | Date:       | 27 March 2026 |

## General

**SCHEDULE OF LUMINAIRES**

The names of manufacturers and types of equipment stated herein are for the purposes of making clear the nature and quality of equipment that is required. Where no reason is given for the exclusive use of such equipment, the Contractor is at liberty to offer goods of equal quality, appearance, workmanship and design from any other manufacturer, provided that such alternatives are completely compliant with the specification and schedules.

Adjustable fixing brackets shall be used/supplied to fit all Surface Mounted Fluorescent Luminaire in order to clear ceiling tile.

Where specific manufacturers names are used, they are provided purely to offer an indication of manufacturers that offer the products listed.

Alternatives will be accepted if the alternatives comply with the technical requirements listed and in the case of light fittings, are of the same general appearance as the fittings shown within the photographs included.

The Contractor shall ensure that the light fittings offered have no more than a Maximum artificial lighting power consumption level of 2.5watt/m2 per 100lux or less in all school areas. It shall be the duty of the contractor to check that equipment proposed fully meets the specification. Any items installed that do not meet the specification shall be removed and replaced at no cost to the contract.

**EQUIVALENT LUMINAIRES**

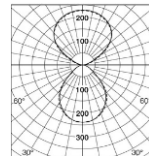
Should equivalent/alternative luminaires be offered, the contractor is to submit to the Employer Representative for approval the following information and luminaire details in order to demonstrate fully that the proposed luminaire meets the performance objectives and design parameters outlined within this specification, accompanying drawings and schedule of luminaires and lamps:

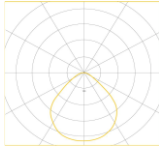
- Samples of equivalent luminaires (fully operational, lamped and wired)
- Full technical luminaire specifications, including:
  - Luminaire photometric performance including Light Output Ratios and Polar curves.
  - Technical specification including materials and construction information.
  - Luminaire photometric data files in Eulumdat format
  - Lamp types Luminaire weights and required mounting details for operation and installation (including remote gear or battery pack information where applicable).
  - Luminaire dimensions including recess space requirements (including remote gear or battery pack information where applicable), are co-ordinated and suitable for all architectural details and ceiling designs.
  - Demonstration of full co-ordination and compatibility with architect's installation details, available supporting and/or fixing elements, recess spaces and ceiling designers.
  - Availability of spare parts in the Republic of Ireland.
  - Photographic illustration - to demonstrate the proposed luminaires aesthetic coherence with the architecture and other luminaires.
  - Calculations for sample areas of the installation (including details of the assumed maintenance factors, interior surface reflectances and lamp lumen outputs).
  - Equivalent luminaires should represent a faithful attempt to match, in detail, the aesthetic attributes of the original product.
  - Written authorisation by the Employer Representative is required before proceeding with the use of alternative luminaires.
- The contractor is completely responsible for the resulting lighting installation, lit effect and illuminance levels, should alternative luminaires be installed without written authorisation.
- The cost of any additional works, undertaken by the Employer Representative, required as a result of contractor proposed alternative fittings and related components, including but not exclusive of calculations, comments upon technical submissions and sample luminaire viewings, should be included as an additional item. This cost should be subtracted from the cost savings offered as a result of the use of alternative luminaires and related equipment.

**Please Note:**

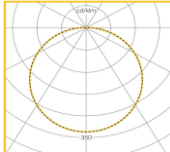
- Green (Not Red) LED indicators on all emergency fittings are to be installed.
- Architect to select luminaire finishes.
- **All fittings must have a TM66 rating of 2 minimum**

| Ref                                       | Image                                                                             | Dimensions             | Description                          | Photometrics                                                                        | Lamp | Manufacturer                    |
|-------------------------------------------|-----------------------------------------------------------------------------------|------------------------|--------------------------------------|-------------------------------------------------------------------------------------|------|---------------------------------|
| A                                         |  | 119 x<br>100 mm<br>DxH | Type: Recessed round                 |  | LED  | Whitcroft Lighting              |
|                                           |                                                                                   |                        | Light Source: LED                    |                                                                                     |      | Product                         |
|                                           |                                                                                   |                        | Luminaire Luminous Flux*: 1010lm     |                                                                                     |      | Mirage 3 C110 or approved equal |
|                                           |                                                                                   |                        | Luminaire Input Power: 7W            |                                                                                     |      |                                 |
|                                           |                                                                                   |                        | Luminaire Efficacy LL/cW: 136        |                                                                                     |      |                                 |
|                                           |                                                                                   |                        | Colour Rendering Index: ≥80          |                                                                                     |      |                                 |
|                                           |                                                                                   |                        | Correlated Colour Temperature: 4000K |                                                                                     |      |                                 |
| Chromaticity Tolerance: 3 McAdam Ellipse  |                                                                                   |                        |                                      |                                                                                     |      |                                 |
| Rated Median Useful Life: 100,000h L80B50 |                                                                                   |                        |                                      |                                                                                     |      |                                 |
| Power Factor:                             |                                                                                   |                        |                                      |                                                                                     |      |                                 |
| Standby Power:                            |                                                                                   |                        |                                      |                                                                                     |      |                                 |
| Light Distribution: DALI                  |                                                                                   |                        |                                      |                                                                                     |      |                                 |
| Dimming                                   |                                                                                   |                        |                                      |                                                                                     |      |                                 |
|                                           |                                                                                   |                        | * Lamp flux x Light Output Ratio     |                                                                                     |      |                                 |
| A/E                                       | Not applicable                                                                    |                        |                                      |                                                                                     |      |                                 |

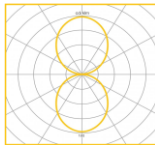
| Ref                                       | Image                                                                                                                                                                    | Dimensions                    | Description                          | Photometrics                                                                        | Lamp | Manufacturer                |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------|-------------------------------------------------------------------------------------|------|-----------------------------|
| B                                         | <br> | 1207 X<br>65 x 65 mm<br>LxWxH | Type: Suspended Linear fitting       |  | LED  | Fagerhult                   |
|                                           |                                                                                                                                                                          |                               | Light Source: LED                    |                                                                                     |      | Product                     |
|                                           |                                                                                                                                                                          |                               | Luminaire Luminous Flux*: 5000lm     |                                                                                     |      | NOTOR65                     |
|                                           |                                                                                                                                                                          |                               | Luminaire Input Power: 37W           |                                                                                     |      | SURF/PEND 50/50             |
|                                           |                                                                                                                                                                          |                               | Luminaire Efficacy LL/cW: 143        |                                                                                     |      | Delta 840 or approved equal |
|                                           |                                                                                                                                                                          |                               | Colour Rendering Index: ≥80          |                                                                                     |      |                             |
|                                           |                                                                                                                                                                          |                               | Correlated Colour Temperature: 4000K |                                                                                     |      |                             |
| Chromaticity Tolerance: 3 McAdam Ellipse  |                                                                                                                                                                          |                               |                                      |                                                                                     |      |                             |
| Rated Median Useful Life: 75,000h L85     |                                                                                                                                                                          |                               |                                      |                                                                                     |      |                             |
| Power Factor:                             |                                                                                                                                                                          |                               |                                      |                                                                                     |      |                             |
| Standby Power:                            |                                                                                                                                                                          |                               |                                      |                                                                                     |      |                             |
| Light Distribution: 50/50 Direct/Indirect |                                                                                                                                                                          |                               |                                      |                                                                                     |      |                             |
| Dimming: DALI                             |                                                                                                                                                                          |                               |                                      |                                                                                     |      |                             |
|                                           |                                                                                                                                                                          |                               | INCL Organic Serpsonse Occupancy     |                                                                                     |      |                             |
|                                           |                                                                                                                                                                          |                               | * Lamp flux x Light Output Ratio     |                                                                                     |      |                             |
| B/E                                       | Not applicable                                                                                                                                                           |                               |                                      |                                                                                     |      |                             |

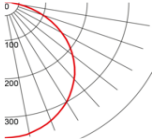
| Ref | Image                                                                             | Dimensions       | Description                                              | Photometrics                                                                        | Lamp | Manufacturrer                                                         |
|-----|-----------------------------------------------------------------------------------|------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------|
| C   |  | 600mm D x 96mm H | Type: Round Surface                                      |  | LED  | Whitcroft Lighting                                                    |
|     |                                                                                   |                  | Light Source: LED                                        |                                                                                     |      | Product                                                               |
|     |                                                                                   |                  | Luminaire Luminous Flux*: 3310lm                         |                                                                                     |      | Oculus: 600mm Diameter or approved equal                              |
|     |                                                                                   |                  | Luminaire Input Power: 24W                               |                                                                                     |      | Finish                                                                |
|     |                                                                                   |                  | Luminaire Efficacy LL/cW: 137                            |                                                                                     |      | Surface mounted fitting with aluminium body and a prismatic diffuser. |
| C/E | Not applicable                                                                    |                  | Colour Rendering Index: ≥80                              |                                                                                     |      | IP Rating                                                             |
|     |                                                                                   |                  | Correlated Colour Temperature: 4000K                     |                                                                                     |      | IP40/20                                                               |
|     |                                                                                   |                  | Chromaticity Tolerance: 3 McAdam Ellipse                 |                                                                                     |      | Total Weight                                                          |
|     |                                                                                   |                  | Rated Median Useful Life: 72,000h L80B50                 |                                                                                     |      | 5.2 kg                                                                |
|     |                                                                                   |                  | Power Factor: Standby Power: Light Distribution: Dimming |                                                                                     |      |                                                                       |

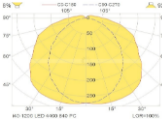
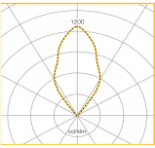
\* Lamp flux x Light Output Ratio

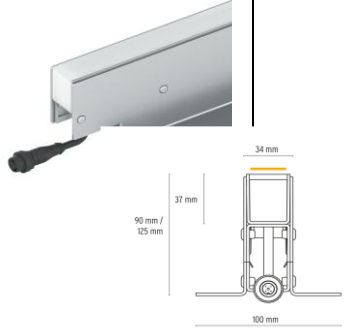
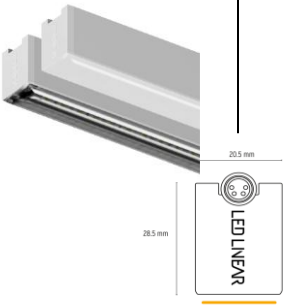
| Ref | Image                                                                             | Dimensions | Description                                              | Photometrics                                                                        | Lamp | Manufacturrer                                                                                                                                                      |
|-----|-----------------------------------------------------------------------------------|------------|----------------------------------------------------------|-------------------------------------------------------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D   |  | 400mm D    | Type: Surface round                                      |  | LED  | Whitcroft Lighting                                                                                                                                                 |
|     |                                                                                   |            | Light Source: LED                                        |                                                                                     |      | Product                                                                                                                                                            |
|     |                                                                                   |            | Luminaire Luminous Flux*: 2790lm                         |                                                                                     |      | Kolo Surface or approved equal                                                                                                                                     |
|     |                                                                                   |            | Luminaire Input Power: 21W                               |                                                                                     |      | Finish                                                                                                                                                             |
|     |                                                                                   |            | Luminaire Efficacy LL/cW: 131                            |                                                                                     |      | Circular cast aluminium body LED luminaire with injection moulded base. 400mm diameter. High grade LED specific polymer diffuser for uniformed diffusion of light. |
| D/E | Not applicable                                                                    |            | Colour Rendering Index: ≥80                              |                                                                                     |      | IP Rating                                                                                                                                                          |
|     |                                                                                   |            | Correlated Colour Temperature: 4000K                     |                                                                                     |      | IP44                                                                                                                                                               |
|     |                                                                                   |            | Chromaticity Tolerance: 3 McAdam Ellipse                 |                                                                                     |      | Total Weight                                                                                                                                                       |
|     |                                                                                   |            | Rated Median Useful Life: 100,000h L80B50                |                                                                                     |      | 3.4 kg                                                                                                                                                             |
|     |                                                                                   |            | Power Factor: Standby Power: Light Distribution: Dimming |                                                                                     |      |                                                                                                                                                                    |

\* Lamp flux x Light Output Ratio

| Ref                                        | Image                                                                             | Dimensions | Description                          | Photometrics                                                                        | Lamp | Manufacturer                   |
|--------------------------------------------|-----------------------------------------------------------------------------------|------------|--------------------------------------|-------------------------------------------------------------------------------------|------|--------------------------------|
| E                                          |  | 400mm W    | Type: Surface wall                   |  | LED  | Whitcroft Lighting             |
|                                            |                                                                                   |            | Light Source: LED                    |                                                                                     |      | Product                        |
|                                            |                                                                                   |            | Luminaire Luminous Flux*: 2325lm     |                                                                                     |      | Vespere Wall or approved equal |
|                                            |                                                                                   |            | Luminaire Input Power: 24W           |                                                                                     |      |                                |
|                                            |                                                                                   |            | Luminaire Efficacy LL/cW:            |                                                                                     |      |                                |
|                                            |                                                                                   |            | Colour Rendering Index: ≥80          |                                                                                     |      |                                |
|                                            |                                                                                   |            | Correlated Colour Temperature: 4000K |                                                                                     |      |                                |
| Chromaticity Tolerance: 3 McAdam Ellipse   |                                                                                   |            |                                      |                                                                                     |      |                                |
| Rated Median Useful Life: 50,000h L80      |                                                                                   |            |                                      |                                                                                     |      |                                |
| Power Factor:                              |                                                                                   |            |                                      |                                                                                     |      |                                |
| Standby Power:                             |                                                                                   |            |                                      |                                                                                     |      |                                |
| Light Distribution: 50% up / 50% downlight |                                                                                   |            |                                      |                                                                                     |      |                                |
| Dimming: DALI                              |                                                                                   |            |                                      |                                                                                     |      |                                |
|                                            |                                                                                   |            | * Lamp flux x Light Output Ratio     |                                                                                     |      |                                |
| E/E                                        | Not applicable                                                                    |            |                                      |                                                                                     |      |                                |

| Ref                                        | Image                                                                             | Dimensions  | Description                          | Photometrics                                                                        | Lamp | Manufacturer                                 |
|--------------------------------------------|-----------------------------------------------------------------------------------|-------------|--------------------------------------|-------------------------------------------------------------------------------------|------|----------------------------------------------|
| F                                          |  | 10mm x 20mm | Type: Surface                        |  | LED  | Ledlinear                                    |
|                                            |                                                                                   |             | Light Source: LED                    |                                                                                     |      | Product                                      |
|                                            |                                                                                   |             | Luminaire Luminous Flux*: 690lm/m    |                                                                                     |      | VENUS White Side View IP67 or approved equal |
|                                            |                                                                                   |             | Luminaire Input Power: 15W/m         |                                                                                     |      |                                              |
|                                            |                                                                                   |             | Luminaire Efficacy LL/cW:            |                                                                                     |      |                                              |
|                                            |                                                                                   |             | Colour Rendering Index: ≥80          |                                                                                     |      |                                              |
|                                            |                                                                                   |             | Correlated Colour Temperature: 4000K |                                                                                     |      |                                              |
| Chromaticity Tolerance: 3 McAdam Ellipse   |                                                                                   |             |                                      |                                                                                     |      |                                              |
| Rated Median Useful Life: 50,000h L80      |                                                                                   |             |                                      |                                                                                     |      |                                              |
| Power Factor:                              |                                                                                   |             |                                      |                                                                                     |      |                                              |
| Standby Power:                             |                                                                                   |             |                                      |                                                                                     |      |                                              |
| Light Distribution: 50% up / 50% downlight |                                                                                   |             |                                      |                                                                                     |      |                                              |
| Dimming: DALI                              |                                                                                   |             |                                      |                                                                                     |      |                                              |
|                                            |                                                                                   |             | * Lamp flux x Light Output Ratio     |                                                                                     |      |                                              |
| F/E                                        | Not applicable                                                                    |             |                                      |                                                                                     |      |                                              |

| Ref        | Image                                                                             | Dimensions                   | Description                                                                                                                                                                                                                                                                                                                                                                                             | Photometrics                                                                        | Lamp                                                                                                                                                                                                                                                                                              | Manufacturrer                                 |
|------------|-----------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>G</b>   |  | 1277mm x<br>101mm x<br>101mm | Type: Corrosion resistant<br>Light Source: LED<br>Luminaire Luminous Flux*: 4552lm<br>Luminaire Input Power: 30W<br>Luminaire Efficacy LL/cW: 152<br>Colour Rendering Index: >80<br>Correlated Colour Temperature: 4000K<br>Chromaticity Tolerance: 3 step<br>Rated Median Useful Life: 100,000 L80B50<br>Power Factor:<br>Standby Power:<br>Light Distribution:<br>Dimming: No                         |  | LED                                                                                                                                                                                                                                                                                               | Glamox or approved equal                      |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                   | Product                                       |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                   | i40-1200 LED 4400<br>840 PC or approved equal |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     | Finish                                                                                                                                                                                                                                                                                            |                                               |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     | Corrosion resistant polycarbonate housing. Polycarbonate opal diffuser                                                                                                                                                                                                                            |                                               |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                   | IP Rating                                     |
| <b>G/E</b> | Three hour remote pack and DALI emergency driver                                  |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                   | IP66/IK08                                     |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                   | Total Weight                                  |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                   | 2.01 Kg                                       |
| Ref        | Image                                                                             | Dimensions                   | Description                                                                                                                                                                                                                                                                                                                                                                                             | Photometrics                                                                        | Lamp                                                                                                                                                                                                                                                                                              | Manufacturrer                                 |
| <b>Q</b>   |  | 345mm dia x<br>200mm H       | Type: Corrosion resistant<br>Light Source: LED<br>Luminaire Luminous Flux*: 1620lm<br>Luminaire Input Power: 20W<br>Luminaire Efficacy LL/cW: 81<br>Colour Rendering Index: >80<br>Correlated Colour Temperature: 3000K<br>Chromaticity Tolerance: 3 step<br>Rated Median Useful Life: 90,000 L70<br>Power Factor:<br>Standby Power:<br>Light Distribution: Symmetrical 60 degree beam<br>Dimming: DALI |  | LED                                                                                                                                                                                                                                                                                               | Whitcroft Lighting                            |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     | Finish                                                                                                                                                                                                                                                                                            | Product                                       |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     | -Die cast aluminium housing<br>-Polyester powder coated, suitable for saline and corrosive environments<br>-Black nylon outer casing<br>-Stainless steel frame (316L marine grade)<br>-Static load resistance up to 4000kg<br>-Integral fixed output driver as standard<br>-waterproof connectors | Marine SD or approved equal                   |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                   | IP Rating                                     |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                   | IP68/IK10                                     |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                   | Total Weight                                  |
| <b>G/E</b> | Three hour remote pack and DALI emergency driver                                  |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                   | 4.7 Kg                                        |
|            |                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                   |                                               |

| Ref | Image                                                                              | Dimensions | Description                                                                                                                                                                                                                                                                                                                                                                                         | Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Manufacturrer                                                        |
|-----|------------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| S   |   |            | Type: In-ground<br>Light Source: LED<br>Luminaire Luminous Flux*: 430lm/m<br>Luminaire Input Power: 6W/m<br>Luminaire Efficacy LL/cW: 152<br>Colour Rendering Index: >80<br>Correlated Colour Temperature: 3000K<br>Chromaticity Tolerance: 3 step<br>Rated Median Useful Life: 60,000 L80B10<br>Power Factor:<br>Standby Power:<br>Light Distribution: Symmetrical 30 degree beam<br>Dimming: DALI | 24 V, linear LED luminaire outdoor in-ground installation. Suitable for installation into roads and parking lots according to EN 60598-2-13. To be walked on and traversed by vehicles with air filled tires (including trucks used for delivery). Polyurethane encapsulation offering a premium water proof sealing, UV resistance (no coloration or increase of absorption) chemical stability against urban gazes and protection against abrasion. Stainless Steel V4A housing delivered with male/female IP67 connectors.<br><br>Protected against electrostatic discharge +/- 2,000 V and polarity miswiring. Fully PWM dimmable for frequency > 0 Hz up to 2 kHz (flicker free for frequency higher then 1.2 kHz according to IEEE P1789 standard). Engineered and produced in Germany. | LED Linear                                                           |
|     |                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Product                                                              |
|     |                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | OCEANOS White High Efficiency HD IP67 or approved equal              |
|     |                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | IP Rating                                                            |
|     |                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | IP67/IK10                                                            |
| S/E | N/A                                                                                |            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Total Weight                                                         |
|     |                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.01 Kg                                                              |
| Ref | Image                                                                              | Dimensions | Description                                                                                                                                                                                                                                                                                                                                                                                         | Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Manufacturrer                                                        |
| T   |  |            | Type: Sureface Façade<br>Light Source: LED<br>Luminaire Luminous Flux*: 1950lm/m<br>Luminaire Input Power: 36W/m<br>Luminaire Efficacy LL/cW: 152<br>Colour Rendering Index: >80<br>Correlated Colour Temperature: 3000K<br>Chromaticity Tolerance: 3 step<br>Rated Median Useful Life: 60,000 L80B10<br>Power Factor:<br>Standby Power:<br>Light Distribution: 10 degree beam<br>Dimming: DALI     | 24 V, linear surface-mounted LED luminaire with small form factor. Full polyurethane encapsulation with an opal polyurethane top layer offering a premium water proof sealing , UV resistance (no coloration or increase of absorption) chemical stability against urban gazes and protection against abrasion.Extruded H-shaped aluminum profile in white. The translucent end caps enable seamless light lines while the solid endcaps eliminate light spills at both ends of the run.<br><br>Engineered and manufactured in Germany.                                                                                                                                                                                                                                                       | LED Linear                                                           |
|     |                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Product                                                              |
|     |                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ADONIS ARCHITECTURAL White High Efficacy Opal IP67 or approved equal |
|     |                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | IP Rating                                                            |
|     |                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | IP67/IK10                                                            |
| T/E | N/A                                                                                |            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Total Weight                                                         |
|     |                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.01 Kg                                                              |

| Ref                    | Image                                                                               | Dimensions           | Description                                                                                                                                                                                                 | Lamp                                | Manufacturer |
|------------------------|-------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------|
| EXIT<br>(single sided) |    | 330x195x53.5mm       | Self-contained - High performance & Energy Efficient Exit Sign with 1W LED. 30M Viewing Distance, 6 Year Warranty on fitting & battery. LiFePO4 Battery.                                                    | 1W LED                              | Ventilux     |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | L80 B50 80000 Hours                 | Product      |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | 5.8VA Inom=24mA (Power Consumption) |              |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | 5700K                               |              |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | Finish                              |              |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | Polycarbonate Plastic 9016 RAL      | IP Rating    |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | Glow Wire 850c Approved             | IP40         |
|                        |                                                                                     |                      |                                                                                                                                                                                                             |                                     | Total Weight |
|                        |                                                                                     |                      |                                                                                                                                                                                                             |                                     | 1.4 kg       |
| Ref                    | Image                                                                               | Dimensions           | Description                                                                                                                                                                                                 | Lamp                                | Manufacturer |
| EXIT<br>(double sided) |    | 330x250x45mm         | Self-contained - High performance & Energy Efficient Exit Sign with 1W LED. 30M Viewing Distance, 6 Year Warranty on fitting & battery. LiFePO4 Battery.<br><br>Wall, Ceiling & Recessed (Bracket required) | 1W LED                              | Ventilux     |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | L80 B50 80000 Hours                 | Product      |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | 4.5VA Inom=19mA (Power Consumption) |              |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | 5700K                               |              |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | Finish                              |              |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | Polycarbonate Plastic 9016 RAL      | IP Rating    |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | Glow Wire 850c Approved             | IP40         |
|                        |                                                                                     |                      |                                                                                                                                                                                                             |                                     | Total Weight |
|                        |                                                                                     |                      |                                                                                                                                                                                                             |                                     | 1.4 kg       |
| Ref                    | Image                                                                               | Dimensions           | Description                                                                                                                                                                                                 | Lamp                                | Manufacturer |
| E1                     |   | 55mm head            | Self-contained - High performance & Energy Efficient Emergency Luminaire. 2W LED 200Lumen Output. Open Plan & Escape Route option available. 6 Year Warranty on fitting & battery. LiFePO4 Battery.         | 2W LED                              | Ventilux     |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | L80 B50 80000 Hours                 | Product      |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | 2VA Inom=8mA (Power Consumption)    |              |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | 5700K                               |              |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | Finish                              |              |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | CutOut 48mm & 200mm Ceiling Void    | IP Rating    |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | Polycarbonate Plastic 9016 RAL      | IP40         |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | Glow Wire 850c Approved             | Total Weight |
|                        |                                                                                     |                      |                                                                                                                                                                                                             |                                     | 0.5Kg        |
| Ref                    | Image                                                                               | Dimensions           | Description                                                                                                                                                                                                 | Lamp                                | Manufacturer |
| E2                     |  | 352mm x 118mm x 45mm | Self-contained - High performance & Energy Efficient Emergency Luminaire. 1W LED 188Lumen Output. Open Plan & Escape Route option available. 6 Year Warranty on fitting & battery. LiFePO4 Battery.         | 1W LED                              | Ventilux     |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | L80 B50 80000 Hours                 | Product      |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | 2VA Inom=8mA (Power Consumption)    |              |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | 6500K                               |              |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | Finish                              |              |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | CutOut 48mm & 200mm Ceiling Void    | IP Rating    |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | Polycarbonate Plastic 9016 RAL      | IP40         |
|                        |                                                                                     |                      |                                                                                                                                                                                                             | Glow Wire 850c Approved             | Total Weight |
|                        |                                                                                     |                      |                                                                                                                                                                                                             |                                     | 0.51Kg       |

## Data Sheet No.4a

|             |                          |             |                          |
|-------------|--------------------------|-------------|--------------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>Lighting Controls</b> |
| Project No: | <b>21ME006</b>           | Revision:   | <b>T1</b>                |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b>     |

## Presence/Daylight Sensor 230V

## Performance Specification

| Sensors                |                                           | Photos                                                                              |
|------------------------|-------------------------------------------|-------------------------------------------------------------------------------------|
| Voltage:               | 220-240 Volts AC 50 Hz                    |  |
| Load Rating:           | N/A                                       |                                                                                     |
| Diameter/Depth/Bezel:  | 98mm Dia x 50mm Height                    |                                                                                     |
| Time Out Period Range: | Adjustable between 15s and 30 minutes     |                                                                                     |
| Light Level:           | 10 - 2,000lux                             |                                                                                     |
| Temp - Operation:      | -25°C to 50°C                             |                                                                                     |
| Terminal Capacity      | 2.5mm2                                    |                                                                                     |
| Material:              | UV & shock resistant polycarbonate        |                                                                                     |
| Type:                  | Class 2                                   |                                                                                     |
| Sensing Range@2.5m     | Diam 10m across, 6m towards, 4m seated    |                                                                                     |
| Programming:           | Programmed & controlled by remote control |                                                                                     |
| Conformity:            | EMC-89/336/EEC; LVD-73/23/EEC             |                                                                                     |
| Notes                  |                                           |                                                                                     |

## DALI PIR/Daylight Sensor

## Performance Specification

| Sensors           |                                           | Photos                                                                                |
|-------------------|-------------------------------------------|---------------------------------------------------------------------------------------|
| Voltage:          | KNX bus 30V DC                            |  |
| Inputs            | DALI control wiring                       |                                                                                       |
| Light Level:      | 5 -1000 lux                               |                                                                                       |
| Temp - Operation: | -10°C to 45°C                             |                                                                                       |
| Sensing Range:    | 4m (3m ceiling height)                    |                                                                                       |
| Programming:      | Programmed & controlled by remote control |                                                                                       |
| Protection Type   | IP20                                      |                                                                                       |
| Conformity:       | EMC-89/336/EEC; LVD-73/23/EEC             |                                                                                       |
| Notes             |                                           |                                                                                       |

| Presence PIR with two channels, one lux for lights, one for fans |                                           |                                                                                                       |
|------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Performance Specification                                        |                                           |                                                                                                       |
| Sensors (Providing Surface Mounts Where Required)                |                                           |                                                                                                       |
| Voltage:                                                         | 220-240 Volts AC 50 Hz, both channels     | <div>Photos</div>  |
| Load Rating:                                                     | 6A for Both                               |                                                                                                       |
| Diameter/Depth/Bezel:                                            | 76.0mm / 65mm / 3.7mm                     |                                                                                                       |
| Time Out Period Range:                                           | Adjustable between 1 and 99 minutes       |                                                                                                       |
| Light Level:                                                     | Light to dark                             |                                                                                                       |
| Temp - Operation:                                                | -10°C to 35°C                             |                                                                                                       |
| Terminal Capacity                                                | 2.5mm <sup>2</sup>                        |                                                                                                       |
| Material:                                                        | Flame retardant ABS                       |                                                                                                       |
| Type:                                                            | Class 2                                   |                                                                                                       |
| Sensing Range:                                                   | 2.8m (H) x 7m Dia                         |                                                                                                       |
| Walk Test LED:                                                   | Behind detector lens                      |                                                                                                       |
| Programming:                                                     | Programmed & controlled by remote control |                                                                                                       |
| Lux Hold off::                                                   | Yes                                       |                                                                                                       |
| Notes                                                            |                                           |                                                                                                       |
| IP54 in bathrooms                                                |                                           |                                                                                                       |

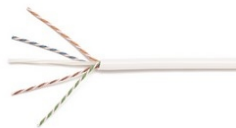
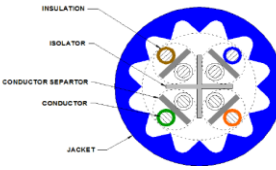
| Electronic Timeclock      |                                                                                                                                                                              |        |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|                           |                                                                                                                                                                              |        |
| Performance Specification |                                                                                                                                                                              |        |
| Standard specifications   | Automatic change of winter/summer time<br>Programming key for permanant rides and program copy & save.<br>56 program steps<br>Permanent overrrieded ON & OFF<br>Holiday mode | Photos |
| Voltage                   | Bus 30V                                                                                                                                                                      |        |
| KNX power used            | 9.5mA                                                                                                                                                                        |        |
| DALI transmission rate    | 1200bit/s                                                                                                                                                                    |        |
| DALI protocol             | EN62386                                                                                                                                                                      |        |
| Programming capacity      | 56 steps                                                                                                                                                                     |        |
| Minimum time between      | 1 minute                                                                                                                                                                     |        |
| Accuracy                  | ±1.5s/24 hours                                                                                                                                                               |        |
| Backup                    | 5 years lithium battery                                                                                                                                                      |        |
| Protection                | IP20                                                                                                                                                                         |        |
| Notes                     |                                                                                                                                                                              |        |
|                           |                                                                                                                                                                              |        |

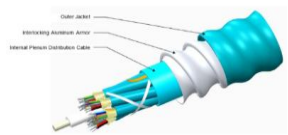
| SmartScan Gateway                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                   |
| <p>Polycarbonate body finished white (RAL9016), silicone keypad</p> <p>Central control for up to 500 Smart and emergency luminaires. Extra Gateways can be fitted to accommodate more luminaires</p> <p>Central control for multiple groups</p> <p>Allows user to manually initiate emergency lighting tests</p> <p>Password protected</p> <p>Communicates with the SmartScan website using GSM mobile telecommunications</p> <p>Scheduled test times / dates managed using the SmartScan website</p> <p>SmartScan Wireless Standards Compliance:<br/>EN 300 220-1 V2.4.1 / EN 301 489-3 V1.6.1</p> <p>Dimensions: 226x226x43 mm<br/>Weight: 1.0Kg</p> | <p>Photos</p>  |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                   |

## Data Sheet No.5

|             |                          |             |                         |
|-------------|--------------------------|-------------|-------------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>Phone &amp; Data</b> |
| Project No. | <b>21ME006</b>           | Revision:   | <b>T1</b>               |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b>    |

| Multicore Telephone Cable       |                                     |                                                                                     |
|---------------------------------|-------------------------------------|-------------------------------------------------------------------------------------|
| Performance Specification       |                                     |                                                                                     |
| Multicore 50 pair Telecom Cable |                                     | Photos                                                                              |
| Conductor:                      | Class 1 solid annealed plain copper |  |
| Insulation:                     | PETP (Polyethylene Terephthalate)   |                                                                                     |
| Separator:                      | PETP (Polyethylene Terephthalate)   |                                                                                     |
| Sheath:                         | LSF (Low Smoke and Fume)            |                                                                                     |
| Sheath Colour:                  | White                               |                                                                                     |
| Temperature Rating:             | 0°C to +70°C                        |                                                                                     |
| Min. Bending Radius             | 8 x overall diameter                |                                                                                     |
| Construction:                   | 5 x 10PR + E(earth wire)            |                                                                                     |
| Nominal Overall Diameter (mm):  | 14                                  |                                                                                     |
| Notes                           |                                     |                                                                                     |
|                                 |                                     |                                                                                     |

| CAT 6a Data Cable         |                               |                                                                                                                                                                               |
|---------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Performance Specification |                               |                                                                                                                                                                               |
| Cat 6a                    |                               | Photos                                                                                                                                                                        |
| Conductor:                | Copper                        | <br> |
| Insulation:               | Polyolefin                    |                                                                                                                                                                               |
| Core Diameter:            | 1.06mm Nominal                |                                                                                                                                                                               |
| CPR Class                 | C <sub>CA</sub> , s1b, d1, a1 |                                                                                                                                                                               |
| ANSI/TIA Category         | 6A                            |                                                                                                                                                                               |
| dc Resistance, max        | 7.61 Ω/100m                   |                                                                                                                                                                               |
| Operating                 | -20°C to 60°C                 |                                                                                                                                                                               |
| Max. Oper. Freq           | 550MHz                        |                                                                                                                                                                               |
| Compliant Standards       | ANSI/TIA-568-C.2              |                                                                                                                                                                               |
| Cable Type                | ISO/IEC 11801 Class EA        |                                                                                                                                                                               |
| Capacitance               | U/UTP                         |                                                                                                                                                                               |
| Warranty                  | 6.0 nF/100m @ 1 KHz           |                                                                                                                                                                               |
| Notes                     |                               |                                                                                                                                                                               |

| Fibre Cable                   |                                                                                                                                                                                       |                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Performance Specification     |                                                                                                                                                                                       |                                                                                     |
| OM4 Fiber                     |                                                                                                                                                                                       | Photos                                                                              |
| Armor Type                    | Interlocking Aluminium                                                                                                                                                                |  |
| Fibre Type                    | Single Mode OS2                                                                                                                                                                       |                                                                                     |
| Flame Test Listing            | NEC OFCP (ETL) and c(ETL)                                                                                                                                                             |                                                                                     |
| Flame Test Method             | NFPA 262                                                                                                                                                                              |                                                                                     |
| Compression                   | 85 N/mm                                                                                                                                                                               |                                                                                     |
| Compression Test              | FOTP-41   IEC 60794-1 E3                                                                                                                                                              |                                                                                     |
| Flex                          | 25 cycles                                                                                                                                                                             |                                                                                     |
| Flex Test Method              | FOTP-104   IEC 60794-1 E6                                                                                                                                                             |                                                                                     |
| Impact                        | 35.00 N-m                                                                                                                                                                             |                                                                                     |
| Impact Test Method            | FOTP-25   IEC 60794-1 E4                                                                                                                                                              |                                                                                     |
| Twist                         | 10 cycles                                                                                                                                                                             |                                                                                     |
| Twist Test Method             | FOTP-85   IEC 60794-1 E7                                                                                                                                                              |                                                                                     |
| Heat Age                      | -20 °C to +85 °C                                                                                                                                                                      |                                                                                     |
| Low High Bend                 | -20 °C to +70 °C                                                                                                                                                                      |                                                                                     |
| Low High Bend Test            | FOTP-37   IEC 60794-1 E11                                                                                                                                                             |                                                                                     |
| Temperature Cycle             | -20 °C to +70 °C                                                                                                                                                                      |                                                                                     |
| Temp Cycle Test               | FOTP-3   IEC 60794-1 F1                                                                                                                                                               |                                                                                     |
| Cable Qualification Standards | ANSI/ICEA S-83-596-2001 / Telcordia GR-409-CORE Issue 2<br>RoHS 2011/65/EU:Compliant<br>ISO 9001:2008: Designed, manufactured and/or distributed under this quality management system |                                                                                     |
| Warranty                      | 25 Year                                                                                                                                                                               |                                                                                     |
| Notes                         |                                                                                                                                                                                       |                                                                                     |

| Cabinet (to be provided in Communications Room)                                                                                                           |                                                                                 |                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                 |                                                                                 |                                                                                       |
| Type:                                                                                                                                                     |                                                                                 | Photos                                                                                |
| Black 47U c/w Standard Corner Plates, Jacking Feet, 19" Rails, 2 x Plain side Panels removable, Vented Glass Door with lock & Vented Rear Panel removable |                                                                                 |  |
| Dimensions:                                                                                                                                               | 800mm x 2222mm x 1000mm (W x H x D)                                             |                                                                                       |
| Cable Tray:                                                                                                                                               | 47U x 75mm                                                                      |                                                                                       |
| Fan:                                                                                                                                                      | 2-Way Fan Tray (230VAC) Top Panel, Black Steel, Includes 2M Long 13A Mains Lead |                                                                                       |
| Power Distribution Unit                                                                                                                                   | 2 x 10 Way switched UK Power Unit Safety earthing Kit                           |                                                                                       |
| Notes                                                                                                                                                     |                                                                                 |                                                                                       |

| UPS                       |                                                                                               |                                                                                     |
|---------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                           |                                                                                               |                                                                                     |
| Performance Specification |                                                                                               |                                                                                     |
|                           |                                                                                               | Photos                                                                              |
| Type:                     | 19" Rack mounted                                                                              |  |
| Phase:                    | Single                                                                                        |                                                                                     |
| Capacity                  | 3kVA/2.4kW                                                                                    |                                                                                     |
| Power factor              | ≥0.99                                                                                         |                                                                                     |
| Output voltage            | 208/220/230/240V AC                                                                           |                                                                                     |
| Voltage Regulation        | ±1%                                                                                           |                                                                                     |
| Frequency Range           | 50Hz ± 0.2Hz (Battery mode)                                                                   |                                                                                     |
| Efficiency Batt. Mode     | 85%                                                                                           |                                                                                     |
| Efficiency AC Mode        | 88%                                                                                           |                                                                                     |
| Battery type              | 12V/9Ah                                                                                       |                                                                                     |
| Indicators:               | UPS status, Load level, Battery level, Input/Output voltage/Discharge timer/ Fault conditions |                                                                                     |
| Notes                     |                                                                                               |                                                                                     |
|                           |                                                                                               |                                                                                     |

## Data Sheet No.6

|             |                          |             |                        |
|-------------|--------------------------|-------------|------------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>Induction Loops</b> |
| Project No: | <b>21ME006</b>           | Revision:   | <b>T1</b>              |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b>   |

| Induction Loop Counter Kit with Microphone                                          |                                                           |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Performance Specification                                                           |                                                           |
| Admin Office                                                                        |                                                           |
| Type:                                                                               | Free-standing/wall mountable with plugtop IEC mains lead. |
| Coverage:                                                                           | 1.2m2 approx                                              |
| Dimensions:                                                                         | W 136 x H 56 x D 178mm (amplifier only);                  |
| Weight:                                                                             | 1.25kg                                                    |
| Mains Power:                                                                        | 230-240V AC                                               |
| Outreach Power:                                                                     | 9V DC                                                     |
| Signal to Noise:                                                                    | "-62dB"                                                   |
| Cable Loop:                                                                         | TX121 pre-formed counter loop                             |
| Input:                                                                              | 1 x 3.5mm remote mic. socket; 1 x Line/Outreach socket    |
| Indicators:                                                                         | Input level; loop current; power on                       |
| Controls:                                                                           | Combined input level; loop drive                          |
| Sticker:                                                                            | AFILS fitted' sticker                                     |
| Notes                                                                               |                                                           |
| Manufacturer: Signet/www.soundproductions.ie (or equivalent and approved)           |                                                           |
| Photo                                                                               |                                                           |
|  |                                                           |

| Small Room Induction Loop Amplifier                                                   |                                                           |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Performance Specification                                                             |                                                           |
| Admin Office                                                                          |                                                           |
| Type:                                                                                 | Free-standing/wall mountable with plugtop IEC mains lead. |
| Coverage:                                                                             | 12m2 approx                                               |
| Dimensions:                                                                           | W 136 x H 56 x D 178mm (amplifier only);                  |
| Weight:                                                                               | 1.25kg                                                    |
| Mains Power:                                                                          | 230-240V AC                                               |
| Outreach Power:                                                                       | 9v DC                                                     |
| Signal to Noise:                                                                      | "-62dB"                                                   |
| Cable Loop:                                                                           | TX121 pre-formed counter loop                             |
| Input:                                                                                | 1 x 3.5mm remote mic. socket; 1 x Line/Outreach socket    |
| Indicators:                                                                           | Input level; loop current; power on                       |
| Controls:                                                                             | Combined input level; loop drive                          |
| Sticker:                                                                              | AFILS fitted' sticker                                     |
| Microphone                                                                            | Lectern microphone or Omni-directional microphone         |
| Notes                                                                                 |                                                           |
| Manufacturer: Signet/www.soundproductions.ie (or equivalent and approved)             |                                                           |
| Photo                                                                                 |                                                           |
|  |                                                           |

| Large Room Induction Loop Amplifier                                       |                                                                                     |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Performance Specification                                                 |                                                                                     |
| Admin Office                                                              |                                                                                     |
| Type:                                                                     | Wall mounting                                                                       |
| Coverage:                                                                 | 120m <sup>2</sup>                                                                   |
| Dimensions:                                                               | W 273 x H 200 x D 77mm                                                              |
| Weight:                                                                   | 2.9kg                                                                               |
| Mains Power:                                                              | 230-240V AC                                                                         |
| Loop drive current                                                        | 1.8A Average                                                                        |
| Bandwidth                                                                 | 40Hz - 8kHz                                                                         |
| Cable Loop:                                                               | TX121 pre-formed counter loop                                                       |
| Input:                                                                    | 600 Ohm Microphone, >10kOhm line in, 200kOhm 100V                                   |
| Indicators:                                                               | Input peak, output drive, power on                                                  |
| Controls:                                                                 | Level control, output drive control, tone control                                   |
| Sticker:                                                                  | AFILS fitted' sticker                                                               |
| Notes                                                                     |                                                                                     |
| Manufacturer: Signet/www.soundproductions.ie (or equivalent and approved) | Photo                                                                               |
|                                                                           |  |

| Induction Loop Testing System |                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------|
| Performance Specification     |                                                                                          |
| Free Issue                    |                                                                                          |
| Kit Contents:                 | Induction Loop Tester, MP3 player c/w test tones; HEAD1 Headphones                       |
| Power:                        | Internal battery (1 x 9V PP3); Battery life = 12 hours approx. Quiescent current = 25mA; |
| Outputs:                      | 3.5m headphone socket suitable for use with HEAD1 headphones (supplied with kit)         |
| Testing:                      | Field Strength, Frequency Response, Background Noise & Metal Compensation Tests          |
| Notes                         |                                                                                          |
|                               | Photo                                                                                    |
|                               |     |

| Ceiling Speakers                                         |                        |                                                                                     |
|----------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|
|                                                          |                        |                                                                                     |
| Performance Specification                                |                        |                                                                                     |
| 8 Ohm line type with the following minimum specification |                        | Photos                                                                              |
| Material:                                                | ABS                    |  |
| Frequency                                                | 70Hz - 20kHz           |                                                                                     |
| Sensitivity1w1m                                          | 85dB                   |                                                                                     |
| Sound Pressure                                           | 102dB                  |                                                                                     |
| RMS Power                                                | 6W                     |                                                                                     |
| Driver:                                                  | 5"                     |                                                                                     |
| Grill:                                                   | Thin edged white grill |                                                                                     |
| Colour:                                                  | White                  |                                                                                     |
| Talk Back                                                | No                     |                                                                                     |
| Basis of Design                                          |                        |                                                                                     |
|                                                          |                        |                                                                                     |

|                        |
|------------------------|
| <b>Data Sheet No.7</b> |
|------------------------|

|             |                          |             |                                      |
|-------------|--------------------------|-------------|--------------------------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>Access Control &amp; Intercom</b> |
| Project No. | <b>21ME006</b>           | Revision:   | <b>T1</b>                            |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b>                 |

| Single Door Controllers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                     |
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Photos                                                                              |
| Dual port Ethernet switch, allows for IP connection<br>TCP / IP - DHCP / Static IP addresses<br>Break glass monitoring<br>Compatible with ACTenterprise software<br>Entry & exit reader standard<br>Reader short circuit protection<br>60,000 users (4 credentials per user)<br>1000 user groups<br>Supports door station technology up to 32 doors<br>Status LED's<br>Space in the enclosure for cable management<br>Anti passback<br>Interlock<br>Tamper and mains present monitoring<br>Voltage monitoring via the web interface and ACT software<br>Operating Voltage 12 Volts DC<br>Current Consumption 250 mA<br>Operating Temperature -10 to +50 C<br>Controller Weight 455 grams<br>Controller Size (H x W x D, mm) 165 x 236 x 55<br>Mounting Surface<br>Installation Indoor |  |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                     |

| Card Proximity Access                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                   |
| <p>Multi-format proximity only reader<br/>           ACTProx cards and fobs supported<br/>           HID cards and fobs supported<br/>           "Clock &amp; Data" or "Wiegand" Output<br/>           Tri-colour LED indication<br/>           Built-in bleep tone for audible indications<br/>           Robust polycarbonate housing<br/>           Potted electronics<br/>           Indoor / outdoor (IP67)<br/>           Surface / flush<br/>           Mounts on standard single gang electrical back box<br/>           Operating Voltage: 5 - 16 Volts DC<br/>           Current Consumption: 75mA<br/>           Operating Temperature: -10 to +50 Celsius<br/>           Reader Weight: 130 grams<br/>           Reader Size (H x W x D, mm): 95 x 128 x 19<br/>           Mounting: Surface / Flush<br/>           Installation: Indoor / Outdoor<br/>           Construction: Robust Polycarbonate Housing</p> | <p>Photos</p>  |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                   |

| Magnetic Locks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>Single Doors ( Single Action – Opening one Way only )<br/>           Single Doors with Single Action will have a Fail Safe Fire Rated Transom Housing Mortice Bar magnet Lock for Access Control Locking, these locks will have a minimum load holding force of 270 KG's.<br/>           These doors will have an Emergency Break Glass and a Non Touch Proximity to Exit Switch.<br/>           The transom housing will be made from an architectural aluminium box section and will facilitate a Mortice Type Bar Magnet Lock. The Transom Housing will be mounted across the full width of the Door providing secure grounding for the electric Locking system<br/>           The locking will operate on magnetism and have a holding force of Minimum 270 Kg's per lock<br/>           It will comply in full with the Description outlined in the Overall Specification Overview</p>                             |
| <p>Door + ½ Door ( Single Action – Opening one Way only )<br/>           Door + ½ Door with single Action will have a Fail safe Fire Rated Transom Housing Mortise Bar Magnet Locking System for Access Control these locks will have a minimum holding force of 270 Kg's each both doors will be locked<br/>           These doors will have an Emergency Break Glass and a Non Touch Proximity to Exit Switch.<br/>           The transom housing will be made from an architectural aluminium box section and will facilitate a Mortice Type Bar Magnet Lock. The Transom Housing will be mounted across the full width of the Door providing secure grounding for the electric Locking system<br/>           The locking will operate on magnetism and have a holding force of Minimum 270 Kg's per lock<br/>           It will comply in full with the Description outlined in the Overall Specification Overview</p> |

Double Doors ( Single Action – Opening one Way only )  
 Double Doors with single Action will have a Fail safe Fire Rated Transom Housing Mortise Bar Magnet Locking System for Access Control these locks will have a minimum holding force of 270 Kg's Per Lock  
 These doors will have an Emergency Break Glass and a Non Touch Proximity to Exit Switch.  
 The transom housing will be made from an architectural aluminium box section and will facilitate a Mortice Type Bar Magnet Lock. The Transom Housing will be mounted across the full width of the Door providing secure grounding for the electric Locking system  
 The locking will operate on magnetism and have a holding force of Minimum 270 Kg's Per Lock  
 It will comply in full with the Description outlined in the Overall Specification Overview

Double Doors ( Double Action – Opening both Ways )  
 Double Doors with double action will have a Fail safe - Approved Mortice Fire Rated Lock with Side Load Opening This is a fail unlocked, double action electric lock. 12 or 24VDC, monitored. This double action electric lock will meet the demanding prEN 13637 European Building Hardware standard.  
 The Lock releases instantly and is ideal for use on Double Action swing doors and fire routes. The specification will satisfy both building control and fire safety officers as it will operate under extreme side pressure in the event of an emergency but is also pressure resistant to intrusion.  
 The Lock will be an Abloy Eff Eff U80 351 or similar and approved.  
 These doors will have an Emergency Break Glass and a Non Touch Proximity to Exit Switch.  
 It will comply in full with the Description outlined in the Overall Specification Overview

| Request to Exit Button                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Photos                                                                                |
| Dimension (L × W × H): 86 mm × 86 mm × 25.7 mm<br>• Input Voltage: 12 VDC.<br>• Working Current: 40 mA (standby), 70 mA (working).<br>• Current Rating: 1 A@30 VDC.<br>• Output Contact: NO/NC/COM contact.<br>• Panel: Stainless steel.<br>• Aging Test: Already passed 1 million times aging test.<br>• Suitable Doors: All kinds of narrow doorframes.<br>• Working Temperature: -20 °C to 50 °C<br>• Working Humidity: 0 to 95% (relative humidity).<br>• Detection Range (Adjustable): 40 mm to 120 mm.<br>• Time Delay: 1 to 25 s (adjustable)<br>• LED Indicator Status: Green/red LED indicates working/standby.<br>• Product Weight: 0.2 kg |  |

| Emergency Call Point (Green)                                                   |                                                                                       |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                |                                                                                       |
| Performance Specification                                                      |                                                                                       |
|                                                                                | Photos                                                                                |
| Green Fully Resettable<br>c/w recessed box<br>c/w transparent protective cover |  |
| Notes                                                                          |                                                                                       |
|                                                                                |                                                                                       |

| Software and PC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                          |
| <b>Software features:</b><br><br>Role based software with modules for the Security Guard, Administrator & Installer<br>Wizard & quick start buttons for common tasks<br>Sitemaps with animated icons for door activity<br>Design and Print ID Cards<br>System Alarm Acknowledgment<br>Activate/deactivate intruder alarm<br>Alert notifications including Break Glass, Door Ajar, Door Forced, Supply Voltage and Fire Alarm Activation<br>Fire alarm interface including muster reporting on fire event<br>Seamless integration with 3rd party software products using the ACT API<br>Milestone Integration (additional module)<br>Utilises the power & scalability of Microsoft SQL server | <b>Photos</b><br><br> |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                          |

| Counter Intercom System                                                                                                                                                                                                                                                                                                                           |                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                         |                                                                                                            |
| <b>Surface mounted counter intercomm system @ each main reception counter location:</b><br><br>Components: Speech Transfer amplifier (CA-STS-A31H), Surface mounted Speaker and microphone (CA-STS-S60-G/B) (CA-STS-M54-G/B), Staff Loudspeaker Unit (CA-STS-SU1-G/B), PS-55 Power supply (CA-PS-55-01), Counter Hearing Loop Aerial (CA-IL-AE99) | <b>Photos</b><br><br> |
| Notes                                                                                                                                                                                                                                                                                                                                             |                                                                                                            |
| Connexus Communications Counter Intercom or approved equal                                                                                                                                                                                                                                                                                        |                                                                                                            |

| Intercom Master Station                                                                                                                                                                                    |                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                            |                                                                                               |
| Performance Specification                                                                                                                                                                                  |                                                                                               |
| 3.5" TFT flat colour monitor<br>VOX or PTT Communication<br>Door release contact<br>Receive volume control<br>Chime tone volume control<br>Instant-on when door calls<br>All call to other inside stations | Photos<br> |
| Notes                                                                                                                                                                                                      |                                                                                               |
|                                                                                                                                                                                                            |                                                                                               |

| Intercom Call Station                                                                                                   |                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                                                                                                         |                                                                                               |
| Performance Specification                                                                                               |                                                                                               |
| Colour CCD camera<br>Flush mount<br>Stainless steel faceplate<br>Metal call button<br>Built in white illumination LED's | Photos<br> |
| Notes                                                                                                                   |                                                                                               |
|                                                                                                                         |                                                                                               |

## Data Sheet No.8

|             |                          |             |                      |
|-------------|--------------------------|-------------|----------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>CCTV</b>          |
| Project No. | <b>21ME006</b>           | Revision:   | <b>T1</b>            |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b> |

| CCTV Camera : Internal/External                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                     |
| Dome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Photos                                                                              |
| <p>3MP Dome Vari-Focal Internal Camera</p> <p>This will be an Internal 3 Mega-Pixel Mini-Dome Vari-Focal 3.6 to 12mm high quality camera producing efficient bandwidth management and is a True Day/Night camera providing 3MP full HD resolution for high-quality images.</p> <p>Main Features will Include:</p> <ul style="list-style-type: none"> <li>• 3MP resolution for true HD quality images</li> <li>• True Day/Night functionality for quality video recording in low light conditions</li> <li>• True Wide Dynamic Range</li> <li>• Motion detection for instant intruder alerts</li> <li>• Operating temperature for outdoor model to -50°C using PoE</li> <li>• IK10-rated</li> <li>• ONVIF compliant</li> </ul> <p>It will comply in full with the Description outlined in the Overall Specification Overview</p> <p>It will connect into and be part of the existing CCTV Management System</p> |  |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                     |
| External cameras to be minimum IP65 rated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                     |

| HD Network Video Recorder System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Performance Specification</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |
| <p>The project will require 2 X integrated 64 Channel NVRs to cater for the CCTV Management &amp; Recording of Cameras these NVRs will be located in a Designated Security Room location to be Finalised</p> <p>The NVR will incorporate Hard Disk Drive Storage to Satisfy the following requirements</p> <p>The System will Record all CCTV Camera at 25 Images per second at a minimum resolution of 2 Mega Pixel (1080P) for a Duration of Minimum 35 Days. After 35 days have lapsed the system will re-write new Data over the oldest information.</p> |       |
| Typical Schematic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |
| Viewing Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |
| <b>Performance Specification</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |
| <p><b>Viewing Station PC</b></p> <p>This tender will allow for 1 X Viewing Station to Cater for up to 4 Viewing Monitors. The PC will be Core i7 with 16GB of RAM, 1TB Hard drive with 2 X NVidia Graphics card.</p> <p><b>Viewing Monitors</b></p> <p>This tender will allow for 2 X 40" LED High Definition CCTV Grade Viewing Monitors &amp; 2 X 32" LED High Definition CCTV Grade Viewing Monitors</p>                                                                                                                                                  |       |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Photo |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |

| UPS                       |                                                                                               |                                                                                     |
|---------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Performance Specification |                                                                                               |                                                                                     |
|                           |                                                                                               | Photos                                                                              |
| Type:                     | 19" Rack mounted                                                                              |  |
| Phase:                    | Single                                                                                        |                                                                                     |
| Capacity                  | 3kVA/2.4kW                                                                                    |                                                                                     |
| Power factor              | ≥0.99                                                                                         |                                                                                     |
| Output voltage            | 208/220/230/240V AC                                                                           |                                                                                     |
| Voltage Regulation        | ±1%                                                                                           |                                                                                     |
| Frequency Range           | 50Hz ± 0.2Hz (Battery mode)                                                                   |                                                                                     |
| Efficiency Batt. Mode     | 85%                                                                                           |                                                                                     |
| Efficiency AC Mode        | 88%                                                                                           |                                                                                     |
| Battery type              | 12V/9Ah                                                                                       |                                                                                     |
| Indicators:               | UPS status, Load level, Battery level, Input/Output voltage/Discharge timer/ Fault conditions |                                                                                     |
| Notes                     |                                                                                               |                                                                                     |
|                           |                                                                                               |                                                                                     |

## Data Sheet No.9

|             |                          |             |                      |
|-------------|--------------------------|-------------|----------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>Fire Alarm</b>    |
| Project No. | <b>21ME006</b>           | Revision:   | <b>T1</b>            |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b> |

| Fire Alarm Panel                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                 |
| Open protocol analogue addressable 4 loop                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                 |
| Apollo, Argus Vega, Hochiki & Nittan Evolution* protocol support.<br>Advanced graphical LCD user interface and support for up to 200 fire zones by default allowing full EN54 compliance without additional hardware.<br>Dedicated RS232 serial port for direct PC or modem connection.<br>Installer friendly Auto-learn, Loop Detection and On-board Scope facility for ease of commissioning and fault finding.<br>Approved to BS EN54 part 2 & 4. |                                                                                                 |
| User Controls:                                                                                                                                                                                                                                                                                                                                                                                                                                       | Alpha numeric keypad, navigation keys & system keys for Reset, Mute, Silence/Resound & Evacuate |
| LED Type General                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3 red (2 x Fire, 1 x Alarm),                                                                    |
| Panel Status                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1 green (Power)                                                                                 |
| Indicators:                                                                                                                                                                                                                                                                                                                                                                                                                                          | 12 amber (Fault & System)                                                                       |
| Interfaces:                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1 RS232 onboard for PC, modem or external printer                                               |
| Relays:                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4 x 1 Amp 30v AC/DC programmable (10mA, 5v min) expandable to 4                                 |
| Sounder Outputs:                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 x 1 Amp programmable                                                                          |
| Loop Capacity:                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4 loops                                                                                         |
| No. of Devices per                                                                                                                                                                                                                                                                                                                                                                                                                                   | 500mA per loop                                                                                  |
| Dimensions (mm):                                                                                                                                                                                                                                                                                                                                                                                                                                     | 475 x 450 x 115                                                                                 |
| Environmental                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0°C to + 40°C; 85% humidity                                                                     |
| Operating Limits:                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                 |
| Construction:                                                                                                                                                                                                                                                                                                                                                                                                                                        | Steel IP30 / beige (textured)                                                                   |
| Stand-by Batteries:                                                                                                                                                                                                                                                                                                                                                                                                                                  | 24v 18 Ah internal. 24v 48 Ah external                                                          |
| Access:                                                                                                                                                                                                                                                                                                                                                                                                                                              | Via on-board keypad<br>PC running Windows tools                                                 |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                 |
| Compatible with existing system                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                 |



| Cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                     |
| Enhanced Fire Alarm Cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Photos                                                                              |
| Class PH120<br>Nominal cross sectional area = 2.5mm <sup>2</sup><br>Mean overall diameter = 11.5mm<br>Approximate cable weight kg/km = 176<br>Maximum conductor resistance at 20°C = 7.4 ohms/km<br>Current rating DC or single phase AC Enclosed = 23 Amps<br>Current rating DC or single phase AC Clipped direct = 27 Amps<br>Volt drop DC or single phase AC = 18 mV/A/m<br>Complies to BS7629-1:2008; BS EN 50200 Class PH120; shock and water test BS8434-2 for 120 minutes. BASEC and LPCB approval to BS5839-1:2002 for enhanced applications.<br>Robust thermoplastic enhanced LSOH sheath<br>Colour - Red |  |

| Manual Call Point                                                                                                                                   |                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                           |                                                                                      |
| Open protocol analogue addressable                                                                                                                  | Photos                                                                               |
| Red Surface Mounted with Resettable element<br>Supplied with Transparent Hinged Cover.<br>LED status Indicator.                                     |  |
| Voltage: 17-28V DC<br>Dimensions (mm): 89mm x 93mm x 26.5mm (without backbox)                                                                       |                                                                                      |
| Weight: 151g<br>Material: Red Polycarbonate / ABS<br>Temperature Range: -20°C to + 60°C<br>IP: 24<br>Compliance: EN54-11:2001 (when cover not used) |                                                                                      |
| Notes                                                                                                                                               |                                                                                      |
| Compatible with existing system                                                                                                                     |                                                                                      |

| Smoke Detectors                                          |                                        |                                                                                     |
|----------------------------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------|
| Performance Specification                                |                                        |                                                                                     |
| Optical Analogue addressable with separate mounting base |                                        |  |
| White Surface Mounted on seprate mounting base           |                                        |                                                                                     |
| LED status Indicator.                                    |                                        |                                                                                     |
| Voltage:                                                 | 17-28V DC                              |                                                                                     |
| Dimensions (mm):                                         | 100mm x 42mm                           |                                                                                     |
| Weight:                                                  | 105g                                   |                                                                                     |
| Material:                                                | White Polycarbonate V-o rated to UL 94 |                                                                                     |
| Temperature Range:                                       | -20°C to + 60°C                        |                                                                                     |
| IP                                                       | 53D                                    | Notes                                                                               |
| Compliance:                                              | EN54-7:2000                            |                                                                                     |
| Compatible with existing system                          |                                        |                                                                                     |

| Heat Detectors                                                          |                                                  |                                                                                      |
|-------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------------|
| Performance Specification                                               |                                                  |                                                                                      |
| Standard Analogue addressable with separate mounting base               |                                                  | Photos                                                                               |
| White Surface Mounted on seprate mounting base<br>LED status Indicator. |                                                  |  |
| Voltage:                                                                | 17-28V DC                                        |                                                                                      |
| Dimensions (mm):                                                        | 100mm x 42mm                                     |                                                                                      |
| Weight:                                                                 | 105g                                             |                                                                                      |
| Material:                                                               | WHite Polycarbonate V-o rated to UL 94           |                                                                                      |
| Temperature Range:                                                      | -20°C to + 70°C                                  |                                                                                      |
| IP                                                                      | 23D                                              | Notes                                                                                |
| Compliance:                                                             | EN54-5:2000                                      |                                                                                      |
| Sensitivity:                                                            | 25°C to 90°C: 1°C/Count. -20°C returns 8 counts. |                                                                                      |
| Compatible with existing system                                         |                                                  |                                                                                      |

| Remote Indicator                                                                                                                                                                                                                                                            |                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                             |                                                                                       |
| Performance Specification                                                                                                                                                                                                                                                   |                                                                                       |
| For use with all void detectors, installed in visible location below (or beside)                                                                                                                                                                                            | Photos                                                                                |
| White Surface Mounted on seprate mounting base<br>LED status Indicator.<br>Voltage: 5-36V DC<br>Dimensions (mm): 80mm diam x 20mm<br>Weight:<br>Material: White Polycarbonate V-o rated to UL 94<br>Temperature Range: -10°C to + 60°C<br>IP 23D<br>Compliance: EN54-5:2000 |  |
| Notes                                                                                                                                                                                                                                                                       |                                                                                       |
| Compatible with existing system: Apollo with Hochiki protocol                                                                                                                                                                                                               |                                                                                       |

| Sounder Base                                                                                                                                                                                   |                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                |                                                                                               |
| Performance Specification                                                                                                                                                                      |                                                                                               |
| 2 Volume ranges 55-75dB and 75-91dB<br>Synchronisation of alert and evacuate tones<br>Synchronisation of beacon flash<br>Individual and group addressing<br>Acoustic self test<br>Loop powered | Photos<br> |
| Notes                                                                                                                                                                                          |                                                                                               |
| Compatible with existing system                                                                                                                                                                |                                                                                               |

| Interface Unit                                                                                                                                                                                            |                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                           |                                                                                               |
| Performance Specification                                                                                                                                                                                 |                                                                                               |
| Input/Output Unit with Isolator<br>Surface mounted to walls<br>C/W backbox with knockouts<br>PCB assembly & protective cover<br>Dimensions (mm): 150 x90 x 48mm<br>2 types - Standard and Mains Switching | Photos<br> |
| Notes                                                                                                                                                                                                     |                                                                                               |
| Compatible with existing system                                                                                                                                                                           |                                                                                               |

| Wall Mounted Door Holders                                                                                                                                                                                                                                                                                           |                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                     |                                                                                                 |
| Performance Specification                                                                                                                                                                                                                                                                                           |                                                                                                 |
| Release on Fire alarm<br>C/W Universal armature<br>Vandal Resistant Wall mounted with Test release button<br>IP53<br>24V DC; 80mA<br>Dimensions: 80 x 70 x 42mm / 113x70x65mm<br>Extension Mount to be supplied where required<br>White metal housing with 50kg holding force<br>Door mounted receiver - all metal. | Photos<br> |
| Basis of Design                                                                                                                                                                                                                                                                                                     |                                                                                                 |
| PSU shall be included with these units.                                                                                                                                                                                                                                                                             |                                                                                                 |

| EVCS Outstation                                              |                                                                                        |                                                                                     |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                              |                                                                                        |                                                                                     |
| Performance Specification                                    |                                                                                        | Photos                                                                              |
| Flush mounted<br>Full duplex operation<br>High volume ringer |                                                                                        |  |
| Dimensions (mm):                                             | 160mmW x 240mm H x 53mm D                                                              |                                                                                     |
| Weight:                                                      | 1.3kg                                                                                  |                                                                                     |
| Material:                                                    | Metal enclosure                                                                        |                                                                                     |
| Compliance:                                                  | EMMC:EN55103-1 & EN55103-2 LVD: EN60950 Product Family BS5839 Pt9 & BS9999 & EN60118-4 |                                                                                     |
| Notes                                                        |                                                                                        |                                                                                     |

| EVCS Master Station                                                                                  |                                                    |                                                                                      |
|------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------|
|                                                                                                      |                                                    |                                                                                      |
| Performance Specification                                                                            |                                                    | Photos                                                                               |
| Can be used as Disabled Refuge & Fire Telephone System<br>Full duplex communication with outstations |                                                    |  |
| Voltage:                                                                                             | 11V to 18V DC                                      |                                                                                      |
| Dimensions (mm):                                                                                     | 268mm x 275mm 85mm                                 |                                                                                      |
| Weight:                                                                                              | 1.49kg                                             |                                                                                      |
| Fault LED's                                                                                          | 4 off yellow                                       |                                                                                      |
| Status LED's                                                                                         | 4 off green                                        |                                                                                      |
| Display                                                                                              | Blue/White LCD four line 20 character              |                                                                                      |
| Keyboard                                                                                             | 12 key phone style                                 |                                                                                      |
| Network cables                                                                                       | 2 X 4C PH120                                       |                                                                                      |
| Compliance:                                                                                          | EMMC:EN55103-1 & EN55103-2 LVD: BS5839-pt9, BS9999 |                                                                                      |
| Notes                                                                                                |                                                    |                                                                                      |

| Aspirating Smoke Detector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Photos                                                                              |
| <p>Sensitivity Detection Module<br/>           Pre-alarm (1) : 0.25% LT/m<br/>           Main alarm: 0.50% LT/m<br/>           (Sampling holes in accordance with EN 54-20: Class A max. 2, Class B max. 6, Category C max. 8)</p> <p>2 Detector Modules<br/>           max Sampling Holes: 8<br/>           Monitoring of up to 5 rooms with localisation of the source of fire</p> <p>Volt free contacts: 2 (5 optional)</p> <p>Smoke level: 10-step bar graph display</p> <p>Approved in Accordance with EN 54-20 Classes A, B, C</p> <p>Fully compliant with EN54-4:1997 + A1:2002 &amp; A2:2006</p> <p>Dimensions: H 140 x W 222x D 70 mm<br/>           Output (mains on): 26.0-28.0V dc nominal<br/>           Load Output: 2.0, 5.0 Amp<br/>           Max Battery Supply:<br/>           2x17Ah in own enclosure (2A, 5A)<br/>           Up to 2x38Ah in separate Battery Box (5A)<br/>           Mains Supply: 93V ac to 264V ac @50/60Hz<br/>           Environment: -10C to 40C @95%RH<br/>           IP54</p> |  |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                     |
| C/W batteries                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     |

## Data Sheet No.10

|             |                          |             |                         |
|-------------|--------------------------|-------------|-------------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>Surge Protection</b> |
| Project No: | <b>21ME006</b>           | Revision:   | <b>T1</b>               |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b>    |

## Main Incoming Switchboards

## Performance Specification

|                                                                                                                                  |                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 4-pole lightning current & Surge Protective Device for TNS-Power Net Systems, protection category T1 T2 T3 (BCD), class I+II+III |                                                                                       |
| Type:                                                                                                                            | PP BCD TNS 25/100 /FM                                                                 |
| Protection category:                                                                                                             | T1 + T2 + T3                                                                          |
| Nominal voltage 50/60 Hz:                                                                                                        | 230 / 400 v                                                                           |
| Rated voltage 50/60 Hz:                                                                                                          | 255 v                                                                                 |
| Insulation resistance [ $\Omega$ ]:                                                                                              | $> 10^{10}$                                                                           |
| Voltage protection level at 100% lightning impulse spark over voltage (1,2/50 $\mu$ s) [kV]:                                     | $\leq 1,0$                                                                            |
| Response time [ns]:                                                                                                              | $< 50$                                                                                |
| Lightning impulse current limp (10/350 $\mu$ s) kA / As / kJ/ $\Omega$                                                           | 25 / 12,5 / 160                                                                       |
| Follow current extinguishing [kA <sub>peak</sub> ] capability at U <sub>c</sub>                                                  | 4,0 (IEC: 3.0)                                                                        |
| Short-circuit withstand capability at max. pre-fuse                                                                              |                                                                                       |
| Max.permissible line resp. back fuse F2 at parallel wiring [kA <sub>eff</sub> / A]                                               | 25 / 250 A gL/gG                                                                      |
| Max. cross-sectional area [ mm <sup>2</sup> ]                                                                                    | stranded 50 / flexible 35 mm <sup>2</sup>                                             |
| Max. switching capacity of remote signal contact                                                                                 |                                                                                       |
| Material of housing / colour                                                                                                     | 250V/0,5A<br>Polycarbonate (halogen free) UL 94-V0 / yellow                           |
| Environment protection category                                                                                                  | IP 20 (IEC/EN 60529)                                                                  |
| Mounting on                                                                                                                      | DIN rail 35 mm (DIN/EN 50 022)                                                        |
| Notes                                                                                                                            | Photo                                                                                 |
|                                                                                                                                  |  |

| Sub Distribution Boards                                |                                                                                     |
|--------------------------------------------------------|-------------------------------------------------------------------------------------|
| Performance Specification                              |                                                                                     |
| Compact and leakage-current free 4-pole surge arrester |                                                                                     |
| Type:                                                  | EPC TNS 275 /FM                                                                     |
| Protection category:                                   | T2                                                                                  |
| Nominal voltage 50/60 Hz:                              | 230 / 400 v                                                                         |
| Rated voltage 50/60 Hz:                                | 275 / 480 v                                                                         |
| Max. acceptable fuse or back-up fuse:                  | 125A gL/gGA                                                                         |
| Protection level at 5kA (Up)                           | ≤ 1.0kV                                                                             |
| Protection level at In(8/20μs) (Up)                    | ≤ 1.4kV                                                                             |
| Response time [ns]:                                    | < 25                                                                                |
| Nominal discharge current (8/20μs) (In)                | 15kA                                                                                |
| Max. impulse discharge current (8/20μs) (Imax)         | 40kA                                                                                |
| Operating temperature range                            | -40 to +80°C                                                                        |
| Max. cross-sectional area [ mm2]                       | stranded 35 / finie-stranded 25 mm2                                                 |
| Material of housing / colour                           | Polycarbonate (halogen free) UL 94-V0 / yellow                                      |
| Environment protection category                        | IP 20 (IEC/EN 60529)                                                                |
| Notes                                                  | Photo                                                                               |
|                                                        |  |

| Final Sub Circuits                                                |                                                                                       |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Performance Specification                                         |                                                                                       |
| Two-pole Surge Protection and leakage current free Surge Arrester |                                                                                       |
| Type:                                                             | EP D TNS 275                                                                          |
| Protection category:                                              | T3                                                                                    |
| Max. continuous operating voltage:                                | 275 V AC/50Hz                                                                         |
| Nominal current (IL)                                              | 16 A                                                                                  |
| Protection level L-N (Up)                                         | ≤ 1.0 kV                                                                              |
| Protection level L/N-PE (Up)                                      | ≤ 1.5 kV                                                                              |
| Response time L-N / L,N-PE (tA)                                   | ≤ 25/≤ 50 ns                                                                          |
| Nominal discharge current (8/20μs) (In)                           | 5 kA                                                                                  |
| Max. impulse discharge current (8/20μs) (Imax)                    | 8 kA                                                                                  |
| Back-up Fuse:                                                     | 15 A gL                                                                               |
| Environment protection category                                   | IP 20 (IEC/EN 60529)                                                                  |
| Mounting on                                                       | DIN rail 35 mm (DIN/EN 50 022)                                                        |
| Material of housing / colour                                      | Polycarbonate (halogen free) UL 94-V0 / yellow                                        |
| Notes                                                             | Photo                                                                                 |
|                                                                   |  |

| Data/Signal and Telecommunication Cables                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                        |                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                        |                                                                                     |
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                        |                                                                                     |
| 20 kA heavy duty GDT arrester with decoupled bipolar suppressor diodes for fine protection with lowpass                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                        |                                                                                     |
| Type:<br>Protection category:<br>Nominal voltage 50/60 Hz:<br>Max. continuous operating voltage:<br>Leakage current at U <sub>max</sub> -DC [μA]<br>Limit frequency [kHz]<br>DC resistance [Ω]<br>Longitudinal inductance [μH]<br>Response time of fine protection [ns]<br>Max. impulse discharge current (1x 8/20μs)<br>Service life durability test at 10/700 μs<br>Max impulse discharge current @ 10/700μs<br>Max AC discharge current (50 Hz/ 5x 0,5s)<br><br>Operating temperature range<br>Environment protection category<br>Mounting on | DataPro2x1- 24V/24V-Tr<br>T1<br>24 v<br>16 A<br>≤ 1.0 kV<br>≤ 1.5 kV<br>≤ 25/≤ 50 ns<br>5 kA<br>8 kA<br>15 A gL<br>IP 20 (IEC/EN 60529)<br>DIN rail 35 mm (DIN/EN 50 022)<br>Polycarbonate (halogen free) UL 94-V0 / yellow<br>- 25 to +85°C<br>IP 20 (IEC/EN 60529)<br>DIN rail 35 mm (DIN/EN 50 022) |                                                                                     |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                        | Photo                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                        |  |

## Data Sheet No.11

|             |                          |             |                             |
|-------------|--------------------------|-------------|-----------------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>Lightning Protection</b> |
| Project No: | <b>21ME006</b>           | Revision:   | <b>T1</b>                   |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b>        |

## Concrete Inspection Pit

## Performance Specification

|                                                                |                       |
|----------------------------------------------------------------|-----------------------|
| Load Rated:                                                    | 3,500kg               |
| Dimensions:                                                    | 320mm x 192mm x 146mm |
| Weight:                                                        | 30kg                  |
| Lid:                                                           | Removable             |
| Notes                                                          |                       |
| Manufacturer: Furse / Erico / ADS (or equivalent and approved) |                       |
| Photo                                                          |                       |



## PVC Coeverted Aluminium Tape

## Performance Specification

|                                                                                       |                                  |
|---------------------------------------------------------------------------------------|----------------------------------|
| PVC Colour Options:                                                                   | Grey, Brown, Black, Stone, White |
| Dimensions:                                                                           | 25mm x 3mm                       |
| Unit Weight:                                                                          | 0.30 kg/m                        |
| Compliance:                                                                           | BS2898-1350 & BS 5252            |
| PVC Thickness:                                                                        | 1.0mm to 1.5mm                   |
| Notes                                                                                 |                                  |
| Manufacturer: Furse / Erico / ADS (or equivalent and approved)                        |                                  |
| To be used with Oxide inhibiting compound - (natural-petroleum based polymer grease). |                                  |
| Photo                                                                                 |                                  |



## Connection Clamp for Re-inforcements

## Performance Specification

|                                                                                       |                        |
|---------------------------------------------------------------------------------------|------------------------|
| Material:                                                                             | St/bare                |
| Clamping range                                                                        | (I) 16-48 / 6-10 mm    |
| Clamping                                                                              | (I) 16-48 / 30-40 mm   |
| Screw Type:                                                                           | Stirrup bolt M10x48 mm |
| Screw Material:                                                                       | St/bare                |
| Standard:                                                                             | DIN EN 50164-1         |
| S/C current Ik [50Hz][300°C]:                                                         | 16 kA                  |
| Notes                                                                                 |                        |
| Manufacturer: Furse / Erico / ADS (or equivalent and approved)                        |                        |
| Conversion brackets for connection to tape to be included.                            |                        |
| To be used with Oxide inhibiting compound - (natural-petroleum based polymer grease). |                        |
| Photo                                                                                 |                        |



| Saddle Connection Clamp                                                                                                                                                                                                  |                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                          |                                                                                     |
| Performance Specification                                                                                                                                                                                                |                                                                                     |
| Enlarged Contact Surface                                                                                                                                                                                                 |                                                                                     |
| Material:                                                                                                                                                                                                                | St/St                                                                               |
| Clamping range                                                                                                                                                                                                           | 0.7-10 mm                                                                           |
| Clamping                                                                                                                                                                                                                 | 2.5/2.5 mm                                                                          |
| Screw Type:                                                                                                                                                                                                              | StSt M10x45 mm                                                                      |
| Screw Material:                                                                                                                                                                                                          | St/St                                                                               |
| Standard:                                                                                                                                                                                                                |                                                                                     |
|                                                                                                                                                                                                                          |                                                                                     |
| Notes                                                                                                                                                                                                                    | Photo                                                                               |
| Manufacturer: Furse / Erico / ADS (or equivalent and approved)<br>Conversion brackets for connection to tape to be included.<br>To be used with Oxide inhibiting compound -<br>(natural-petroleum based polymer grease). |  |

| Air Termination Rod                                                                                                       |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                                                           |                                                                                       |
| Performance Specification                                                                                                 |                                                                                       |
| Tubular air-termination rods with tapering, light-weight type, length of tapering 1000 mm each                            |                                                                                       |
| Material:                                                                                                                 | AlMgSi                                                                                |
| Clamping range                                                                                                            | > 3000mm                                                                              |
| Clamping                                                                                                                  | 16/10 (t1 2.5) mm                                                                     |
| Screw Type:                                                                                                               |                                                                                       |
| Screw Material:                                                                                                           |                                                                                       |
| Standard:                                                                                                                 | DIN EN 50164-2                                                                        |
|                                                                                                                           |                                                                                       |
| Notes                                                                                                                     | Photo                                                                                 |
| Manufacturer: Furse / Erico / ADS (or equivalent and approved)<br>To be supplied with fixing system to site requirements. |  |

| Down Conductor Tape Clip                                       |                                                                                     |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                |                                                                                     |
| Performance Specification                                      |                                                                                     |
| For PVC Covered Tape                                           |                                                                                     |
| Conductor                                                      | 25mm x 3mm                                                                          |
| Dimensions (min):                                              |                                                                                     |
| Weight::                                                       | 0.04 kg                                                                             |
| Material:                                                      | Aluminium Alloys                                                                    |
| Fixing:                                                        | M6 Screw                                                                            |
|                                                                |                                                                                     |
| Notes                                                          | Photo                                                                               |
| Manufacturer: Furse / Erico / ADS (or equivalent and approved) |  |

| Junction Clamp                                                                                                                                             |                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                                                                                                                                                            |                                                                                      |
| Performance Specification                                                                                                                                  |                                                                                      |
| For PVC Covered Tape                                                                                                                                       |                                                                                      |
| Conductor                                                                                                                                                  | 26mm x 8mm                                                                           |
| Dimensions (min):                                                                                                                                          |                                                                                      |
| Weight::                                                                                                                                                   | 0.12 kg                                                                              |
| Material:                                                                                                                                                  | Aluminium Alloys                                                                     |
| Fixing:                                                                                                                                                    | M6 Screw                                                                             |
| Tightening Torque:                                                                                                                                         | 15Nm                                                                                 |
| Standard:                                                                                                                                                  | BS EN 50164-1 Class H                                                                |
|                                                                                                                                                            |                                                                                      |
| Notes                                                                                                                                                      | Photo                                                                                |
| Manufacturer: Furse / Erico / ADS (or equivalent and approved)<br>To be used with Oxide inhibiting compound -<br>(natural-petroleum based polymer grease). |  |

| Anti-Corrosive Tape                                                                              |                                                                                                                                    |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                  |                                                                                                                                    |
| Performance Specification                                                                        |                                                                                                                                    |
| For under & above ground connections                                                             |                                                                                                                                    |
| Material:                                                                                        | Petrolatum<br>Non-woven, stitch-bonded, synthetic fabric carrier;<br>Fully saturated and coated with a neutral petrolatum compound |
|                                                                                                  |                                                                                                                                    |
| Notes                                                                                            | Photo                                                                                                                              |
| Manufacturer: Furse / Erico / ADS (or equivalent and approved)<br>To be used on all connections. |                                               |

| Earth Rod Clamps                                                                                                                                                                  |                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                                                                                                                   |                                                                                     |
| Performance Specification                                                                                                                                                         |                                                                                     |
| Rod to tape clamp                                                                                                                                                                 |                                                                                     |
| Conductor                                                                                                                                                                         | 26mm x 12mm                                                                         |
| Dimensions (min):                                                                                                                                                                 |                                                                                     |
| Weight:                                                                                                                                                                           | 0.15 kg                                                                             |
| Standard:                                                                                                                                                                         | BS EN 50164-1 Class H                                                               |
| Tightening Torque:                                                                                                                                                                | 15Nm                                                                                |
|                                                                                                                                                                                   |                                                                                     |
| Notes                                                                                                                                                                             | Photo                                                                               |
| Manufacturer: Furse / Erico / ADS (or equivalent and approved)<br>Corrosion Resistant<br>To be used with Oxide inhibiting compound -<br>(natural-petroleum based polymer grease). |  |

| Earth Rod                                                      |        |
|----------------------------------------------------------------|--------|
|                                                                |        |
| Performance Specification                                      |        |
| To site requirements.                                          |        |
| Length (min):                                                  | 3000mm |
|                                                                |        |
| Notes                                                          | Photo  |
| Manufacturer: Furse / Erico / ADS (or equivalent and approved) |        |

| Saddle Connection Clamp for Seam Profile Metal Roofing         |                                                                                       |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                |                                                                                       |
| Performance Specification                                      |                                                                                       |
| Conductor                                                      | 25mm x 3mm                                                                            |
| Dimensions (min):                                              |                                                                                       |
| Weight:                                                        | 0.076 kg                                                                              |
| Max seam width:                                                | 22mm                                                                                  |
| Corrosion resistant coating:                                   | 1000hrs                                                                               |
| Dimensions:                                                    | 49mm x 43mm x 22mm                                                                    |
| Tightening Torque:                                             | 2Nm                                                                                   |
|                                                                |                                                                                       |
| Notes                                                          | Photo                                                                                 |
| Manufacturer: Furse / Erico / ADS (or equivalent and approved) |  |

## Data Sheet No.12

|             |                          |             |                      |
|-------------|--------------------------|-------------|----------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>Switchboards</b>  |
| Project No. | <b>21ME006</b>           | Revision:   | <b>T1</b>            |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b> |

| Main Distribution Board                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        |
| Form 4b Type 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Photos |
| <p>The distribution system complies with the following standards and guidelines:</p> <ul style="list-style-type: none"> <li>- Design tests according to IEC/EN 61439-2 (DIN VDE 0660 Teil 600-2)</li> <li>- Protection against electric shock according to DIN EN 50274 (VDE 0660 Part 514)</li> <li>- Environmental requirements according to 2002/95/EG RoHs</li> </ul> <p>A routine verification according to IEC 61439-2, DIN EN 61439-2 (VDE 0660, Part 600), Clause 11 has to be enclosed with the distribution board upon delivery</p> <p>Technical data:</p> <p>Protection class I</p> <p>Rated operational 690 V/50 Hz</p> <p>Rated insulation voltage <math>U_i</math>: up to 1000 V AC</p> <p>Rated impulse withstand voltage <math>U_{imp}</math>: 12 kV</p> <p>Overvoltage category: IV</p> <p>Pollution degree: 3</p> <p>Protection against mechanical impacts: IK08</p> <p>Degree of protection against operational area: IP31 ventilated with roof plate</p> <p>Busbar system: L1-L3; PE; N</p> <p>Position of main busbar: top</p> <p>Rated operating current of the main busbar, ventilated:</p> <p><math>I_e[A](35^\circ C)</math>, <math>I_{cw}[kA](1 s)</math>: 1190, 35</p> <p>Type of installation: Wall-standing arrangement</p> <p>Ambient air temperature: <math>35^\circ C</math></p> <p>Surface treatment:</p> <p>Frame components: sendzimir-galvanized</p> <p>Covering: sendzimir-galvanized</p> <p>Side walls, doors, bases: powder-coated</p> <p>Colour: RAL 7035</p> <p>Construction:</p> <ul style="list-style-type: none"> <li>- Rear wall, galvanised</li> <li>- Design side walls at the termination cubicles on the right and on the left, powder-coated</li> <li>- Separation from cubicle to cubicle</li> <li>- Line-up connection sets</li> </ul> |        |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |

| Moulded case circuit breakers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        |
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Photos |
| Electrical Durability: 5000 cycles<br>Mechanical Durability: 10000 cycles<br><br>Number of poles: 3<br>Power Loss: per Pole 30 W<br>Rated Current (In): Main Circuit 1000 A<br>Rated Impulse Withstand Voltage (Uimp): 12 kV<br>Rated Insulation Voltage (Ui): 1000 V<br>Rated Operational Voltage: 690 V AC<br>Rated Service Short-Circuit Breaking Capacity (Ics): (400 V AC) 50 kA<br>Rated Short-time Withstand Current (Icw): for 1 s 20 kA<br>Rated Ultimate Short-Circuit Breaking Capacity (Icu): (400 V AC) 50 kA<br>In accordance to IEC 60947-2, -3, -4 Standard |        |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        |

| Switch Fuses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |
| 32A, 63A, 80A, 100A, 125A, 160A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Photos |
| Rated Operational Power AC-23A (Pe): 30kW<br><br>Conventional Free-air Thermal Current (Ith): $q = 40^{\circ}\text{C}$ 63 A<br>Rated Impulse Withstand Voltage (Uimp): 12 kV<br>Rated Insulation Voltage (Ui): 1000 V<br>Rated Operational Voltage: 500 V<br>Rated Short-time Withstand Current (Icw): for 1 s 2.5 kiloampere rms<br>Power Loss: at Rated Operating Conditions per Pole 7.5 W<br>Pollution Degree: 3<br>Fuse System: British Standard<br>Operating Mode: Front Operated<br>Standards: IEC 60947-3<br>Number of Poles: 3 |        |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |

| Power Factor Correction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        |
| Automatic Compensation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Photos |
| <b>Electrical Characteristics</b><br>Rated Voltage: 400 V - 50 Hz<br>Capacitance Tolerance: -5%, +10%<br>Connection type: Three-phase<br>Power losses: < 2 W/kVAr<br>Maximum permissible over current: 1.36 I <sub>n</sub> for no polluted network<br>Maximum permissible over voltage: 1.1 x U <sub>n</sub> , 8 h every 24 h<br>Overload protection: By Thdu management from controller<br>Insulation voltage: 500 V up to 30 kVAr, 690 V from 37 kVAr<br>Rated Impulse Withstand Voltage (U <sub>imp</sub> ): 8 kV<br><br>Degree of protection: IP31<br>Colour: RAL 7035<br>Degree of mechanical resistance: IK10<br><br><b>Environment:</b><br>Installation: Indoor: Ambient temperature: -5°C to 45°C<br>Average daily temperature: +35°C max<br>Humidity: up to 95%<br>Maximum altitude: 2000 m<br><br><b>Standards</b><br>IEC 61921, IEC 61439-1/2<br><br>Power (kVAr): 50 |        |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |
| C/W Modbus communication                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |

| Measuring Device and Power Monitoring                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        |
| Automatic Compensation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Photos |
| <p>Four-quadrant (import and export) measuring</p> <p>Voltage: Phase-phase / phase-neutral<br/>           Currents: Per phase including neutral current total<br/>           Apparent, active and reactive power (kW, kVAR, kVA) Per phase and total<br/>           Power Factor Total<br/>           Frequency 45...64 Hz<br/>           Min. / max. values<br/>           Voltage – phase-phase, phase-neutral<br/>           Current / Power / Power factor<br/>           Frequency<br/>           Three phase average voltage and current</p> <p>Energy measurement<br/>           Real (active) energy (kWh) Import / export<br/>           Reactive energy (kVARh)<br/>           Positive / negative; high / low tariff<br/>           Energy demand per measuring period: Three phase average rating for active and reactive power 1 to 60 min.<br/>           Min. / max. rating values within the measuring period</p> <p>Measurement accuracy:<br/>           Voltages <math>\pm 1\%</math><br/>           Currents <math>\pm 1\%</math><br/>           Power <math>\pm 1\%</math><br/>           Active energy Class 1 S in acc. with IEC62053-22 / ANSI 12.16 Class 1<br/>           Reactive energy Class 3 in acc. with IEC 62053-23</p> <p>Measurement types: 1 ph, 2 ph or 3 ph<br/>           Applicable for network type: TN, TT, IT<br/>           Sampling rate: 64 samples/cycle, all channels measured simultaneously<br/>           Measured voltage: Direct connection up to max , delta/ye without transformer 480V/400V (Cat III)<br/>           Current inputs Settable on device 1A or 5A nominal<br/>           Power supply: AC/DC 100...240V AC(<math>\pm 10\%</math>) / 110...250V DC(<math>\pm 10\%</math>)<br/>           Dimensions L x W x D: 96 x 96x 55 mm<br/>           Degree of protection Front IP65, for UL IP54<br/>           Rear IP20, NEMA 1A<br/>           Operating temperature: +23...+131°C<br/>           Display Type<br/>           Background-illuminated graphic LCD</p> <p>Resolution (pixels): 128 x 96<br/>           Text displays: Multilingual</p> <p>Precision:<br/>           ANSI C12.16 Class 1s<br/>           Energy Measurement:<br/>           Voltage <math>\pm 1\%</math></p> |        |
| C/W Modbus communication                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |

## Data Sheet No.13

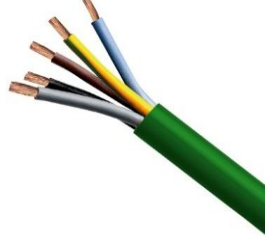
|             |                          |             |                      |
|-------------|--------------------------|-------------|----------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>Energy Meter</b>  |
| Project No: | <b>21ME006</b>           | Revision:   | <b>T1</b>            |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b> |

| Energy Meter                                                                                                                                                                                                                                       |                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Performance Specification                                                                                                                                                                                                                          |                                                                                              |
| Panel mounted<br>Backlit display<br>Multiple viewing screens with pushbutton access<br>Display +kWh, +kVAr, I, U, V, F, O,Q, S, PF<br>Dimensions: 96mm x 96mm<br>Compliance with : IEC 61557-12<br>IEC 62053-22 class 0.5s<br>IEC 62053-23 class 2 | Photo<br> |
| Notes                                                                                                                                                                                                                                              |                                                                                              |

## Data Sheet No.14

|             |                          |             |                      |
|-------------|--------------------------|-------------|----------------------|
| Project:    | <b>Cahir Digital Hub</b> | Data Sheet: | <b>Cabling</b>       |
| Project No. | <b>21ME006</b>           | Revision:   | <b>T1</b>            |
| Client:     | <b>Tipperary Co Co</b>   | Date:       | <b>27 March 2026</b> |

| LV Armoured Cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |
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| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |
| LSZH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Photos                                                                              |
| <p>Conductor: Class 2 stranded copper conductor according to BS EN 60228 (previously BS 6360)</p> <p>Insulation: XLPE (Cross-Linked Polyethylene) Type GP8 according to BS 7655</p> <p>Bedding: LSZH (Low Smoke Zero Halogen) Type LTS1 according to BS 7655</p> <p>Armour: SWA (Steel Wire Armour)</p> <p>Sheath: LSZH (Low Smoke Zero Halogen) Type LTS1 according to BS 7655</p> <p>Standards:<br/>BS 6724, BS EN/IEC 60502-1, BS EN/IEC 60754-1 and 2, BS EN 50267-2-1 and 2, BS EN/IEC 61034-1, BS EN/IEC 60332-1-2, BS EN/IEC 60332-3-24 Cat C</p> <p>BASEC Approved</p> <p>Minimum Reaction to fire: Cca-s1b, d1, a1 (EN 50575:2014+A1:2016)</p> <p>Voltage Rating (Uo/U): 600/1000V</p> <p>Temperature Rating: Fixed installation: -20°C to +90°C</p> <p>Minimum Bending Radius:<br/>1.5mm<sup>2</sup> to 16mm<sup>2</sup> - Fixed: 6 x overall diameter<br/>25mm<sup>2</sup> and above - Fixed: 8 x overall diameter</p> |  |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                     |

| LV Unarmoured Cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                     |
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| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     |
| LSZH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Photos                                                                              |
| <p>IEC 60502-1 (Construction and tests)</p> <ul style="list-style-type: none"> <li>- CONDUCTOR: Flexible, annealed, plain copper conductor, class 5 based on standard IEC 60228.</li> <li>- INSULATION: Cross-linked polyethylene (XLPE) according to International standard IEC 60502-1</li> <li>- ASSEMBLY OF CONDUCTORS: In multicore cables, the cores are cabled helically.</li> <li>- FILLER: Extruded. Optional for multicore cables. Halogen free thermoplastic material, suitable for the operating temperature of the cable and compatible with the insulating and sheathing material.</li> <li>- OVERSHEATH: Extruded polyolefin type ST8 according to International standard IEC 60502-1.</li> </ul> <p>BASEC Approved</p> <ul style="list-style-type: none"> <li>- Minimum Reaction to fire: Cca-s1b, d1, a1 (EN 50575:2014+A1:2016) <ul style="list-style-type: none"> <li>• EN 60332-1-2; IEC 60332-1 (H≤425 mm) Flame retardant</li> <li>• EN 50399 (flame source: 20,5 kW) <math>F_s \leq 1,5</math> m Fire retardant</li> <li>• Low heat generation: EN 50399 (flame source: 20,5 kW) <ul style="list-style-type: none"> <li>- Total heat released: <math>THR \leq 30</math> MJ</li> <li>- Maximum value of the heat released: <math>Peak\ HRR \leq 60</math> kW</li> <li>- Indication of heat increase: <math>FIGRA \leq 300</math> W/s</li> </ul> </li> <li>• Low production and opacity of emitted smokes: <ul style="list-style-type: none"> <li>- s1 (EN 50399): <ul style="list-style-type: none"> <li>-Total smoke production: <math>(TSP) \leq 50</math> m2</li> <li>-Maximum value of smokes released : <math>(Peak\ SPR) \leq 0,25</math> m2/s</li> </ul> </li> <li>- s1b: s1 and <math>60\% &lt; Transmittance &lt; 80\%</math> (IEC 61034-2)</li> </ul> </li> <li>• Low production of flaming droplets (EN 50399 - flame source:20,5 kW): <ul style="list-style-type: none"> <li>- d1: No flaming droplets/particles persisting longer than 10' occurs within 1200'.</li> </ul> </li> <li>• Low acidity and conductivity of the emitted gases: <ul style="list-style-type: none"> <li>- a1: <math>pH \geq 4,3</math> conductivity <math>&lt; 2,5</math> ?S/mm (EN 60754-2; IEC 60754-2)</li> </ul> </li> </ul> </li> </ul> |  |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |
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| Singles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                     |
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| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                     |
| LSZH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Photos                                                                              |
| <p>- CONDUCTOR:<br/>Rigid annealed plain copper conductor, class 1 (cross sectional areas: 1,5/2,5/4 mm<sup>2</sup> – solid (-U)) or class 2 (cross sectional area <math>\geq 6</math> mm<sup>2</sup> – stranded (-R)) acc. to IEC 60228; EN 60228.</p> <p>- INSULATION:<br/>Halogen free cross-linked polyolefin compound (Type EI 5) acc. to EN 50363-5.</p> <p>- Minimum Reaction to fire: Cca-s1b, d1, a1 (EN 50575:2014+A1:2016)</p> <ul style="list-style-type: none"> <li>• EN 60332-1-2; IEC 60332-1 (H<math>\leq</math>425 mm) Flame retardant</li> <li>• EN 50399 (flame source: 20,5 kW) Fs <math>\leq</math> 2 m Fire retardant</li> <li>• Low heat generation: EN 50399 (flame source: 20,5 kW) <ul style="list-style-type: none"> <li>- Total heat released: THR <math>\leq</math> 30 MJ</li> <li>- Maximum value of the heat released: Peak HRR <math>\leq</math> 60 kW</li> <li>- Indication of heat increase: FIGRA <math>\leq</math> 300 W/s</li> </ul> </li> <li>• Low production and opacity of emitted smokes: <ul style="list-style-type: none"> <li>- s1 (EN 50399): <ul style="list-style-type: none"> <li>-Total smoke production: (TSP) <math>\leq</math> 50 m2</li> <li>-Maximum value of smokes released : (Peak SPR) <math>\leq</math> 0,25 m2/s</li> </ul> </li> <li>- s1b: s1 and 60% &lt; Transmittance &lt; 80 % (UNE EN 61034-2; IEC 61034-2)</li> </ul> </li> <li>• Low production of flaming droplets (EN 50399 - flame source:20,5 kW): <ul style="list-style-type: none"> <li>- d1: No flaming droplets/particles persisting longer than 10' occurs within 1200'.</li> </ul> </li> <li>• Low acidity and conductivity of the emitted gases: <ul style="list-style-type: none"> <li>- a1: pH<math>\geq</math>4,3 conductivity &lt; 2,5 microS/mm (EN 60754-2; IEC 60754-2)</li> </ul> </li> </ul> <p>Other performances:</p> <ul style="list-style-type: none"> <li>- Fire retardant: UNE EN 60332-3-24 / IEC 60332-3-24 (cat.C)</li> <li>- Halogen free. Low emission of toxic gases: EN 60754-1 / IEC 60754-1</li> </ul> <p>BASEC Approved</p> |  |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |
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| Control/Instrumentation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |
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| Performance Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                     |
| LSZH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Photos                                                                              |
| <p>Conductor: Class 2 stranded tinned copper conductor<br/>           Inner Sheath: PE (Polyethylene)<br/>           Screen: Aluminium polyester foil<br/>           Drain Wire: Tinned copper<br/>           Braid: TCWB (Tinned Copper Wire Braid)<br/>           Sheath: LSZH (Low Smoke Zero Halogen)</p> <p>Standards:<br/>           Generally to Belden; 9841 LSZH, RS485<br/>           CENELEC Compliance: EN 50290-2-27</p> <p>Minimum Reaction to fire: Cca-s1b, d1, a1 (EN 50575:2014+A1:2016)</p> <p>Voltage Rating: 300V<br/>           Installation Temp Range: -15°C To +80°C</p> <p>ISO/IEC Flammability: IEC 60332-3-24 and IEC 60332-3-22<br/>           Other Flammability: UL AWM 21088<br/>           Amount of Halogen acc. to IEC 60754-1 &amp; EN50267-1: Zero</p> |  |
| Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                     |