

## Typical Modular Wiring Specification:

### Armoured & Unarmoured Systems

#### General:

The contractor shall install a modular wiring system for distribution of lighting and power within the ceiling void.

#### System: Armoured

The modular wiring system generally comprises of cable assemblies and steel enclosures. All internal wiring generally will be 2.5mm<sup>2</sup> and 4.0mm<sup>2</sup> LSOH singles (6491B). The modular wiring system generally is rated 230V/16A or 20A. The modular wiring system offers a high degree of mechanical protection through the use of steel enclosures and cable assemblies comprising metal flexible conduit and die-cast connector housings.

#### System: Unarmoured

The modular wiring system shall comprise of LSOH flexible cable assemblies, steel enclosures (MDBs) and polyamide enclosures. The modular wiring system is rated at 230V/16A.

#### Connector System:

The connector system used throughout the entire modular wiring system shall incorporate a connector system manufactured and tested in accordance with BS 61535 - Installation Couplers Intended for Permanent Connection. Connectors shall be 3, 4, 5 or 6 pole type and have fully shrouded female (live) pins.

#### System Components:

The principal components of the modular wiring system shall be as follows:

- Home Run Cable
- Cable Assembly
- Fused Connection Unit (FCU)
- Main Distribution Box (MDB)
- T Connector
- Switch Connector

#### Home Run Cables:

Home run cables generally comprise of LSOH SWA 2.5mm<sup>2</sup> multicore type up to 4.0mm<sup>2</sup> & 6.0mm<sup>2</sup> LSOH singles (number dependant on number of circuits) in metal flexible conduit (up to 40mm diameter) complete with gland and lock-nut. If the modular wiring system is to be integrated with a lighting control system the home run cable will generally comprise of a Belden type 8719 fieldbus cable.

#### Main Distribution Boxes (MDBs):

MDBs generally comprise of a solid steel enclosure with a removable lid and provision for earthing. Output ports shall be positioned around perimeter of the MDB. The MDB shall incorporate a suitably sized DIN rail mounted terminal for connection of the home run cable and internal wiring to the output ports.

#### Cable Assemblies: Armoured

Cable assemblies generally comprise up to 4.0mm<sup>2</sup> LSOH singles in a metal flexible conduit (16 mm diameter) and pre-wired male and/or female connector and/or gland and lock-nut.

#### Cable Assemblies: Unarmoured

Cable assemblies generally comprise LSOH multicore flexible cable and pre-wired male and/or female connectors.

#### T Connector: Armoured

The T connector generally comprise of die-cast connector housings, male and female connectors (6 pole) and tails or flexible drop lead for connection to luminaires/lighting control module (LCM)/fan coil unit (FCU)/variable air volume unit (VAV).

#### T Connector: Unarmoured

T Connectors generally comprise of polyamide connector housings, male and female "snap-fit" connectors (3, 4 5 or 6 pole) and tails or flexible drop lead for connection to luminaire/lighting control module (LCM)/fan coil unit (FCU)/variable air volume unit (VAV).

#### Switch Connector: Armoured

Switch connectors generally comprise of die-cast connector housings, male and female connectors and pre-wired flexible switch drop or facility for plug-in switch lead.

#### Switch Connector: Unarmoured

Switch connectors generally comprise of polyamide connector housings, male and female connectors (3, 4, 5 or 6 pole) and pre-wired flexible switch drop or facility for plug-in switch lead.

#### Fused Connection Unit (FCU):

Fused connection units (for connection to fan-coils or similar loads) shall comprise of a steel enclosure with removable lid, a suitably rated switch and fuse (or combined) and suitable provision for earthing.

## RST Specification IP66/IP68

	RST 20i2/i3	RST 25i3	RST 20i4/i5	RST 25i5
Rated Voltage	250 V	250 V	250 / 400 V	250 / 400 V
Rated Current	20 A	25 A	20 A	25 A (L, N) 1 ~ Contacts (1, 2) 10 A
Number of Poles	2 or 3 Pole	3 Pole	4 or 5 Pole	5 Pole
Ambient Operating Temperature under Full Load	Connectors 55°C Distributor 40°C	55°C	55°C	55°C

**Temperature Range:** - 40°C to + 100°C

**Material:** Contact parts: brass. Surface-plated housing parts: thermoplastic material PA 66, halogen-free, V2 sealing material: NBR.

**Regulations:** DIN VDE 0606 T200, DIN EN61984 (VDE 627), VDE 0110 IEC 60999: UL 2238: CSA: C22.2 No. 182.2-M1987 LR Type Approval System.

**Approvals:** Pending  
VDE; UL; CSA; LR; GL; DNV.

**Degree of Protection:** IP 65, IP66, IP67 and IP 68 (3m; 2 hours).

#### Glow-wire Test

**850°C, 30s:** For connectors, distribution units, cable assemblies and appliance couplers.

**Coding:** Mechanical coding symbolised by colour code. Grey and black with the same mechanical coding. Other codings are optional.

**Note:** Protection against shock generally guaranteed even when disconnected.  
Protective conductor leading. Connection to the live cable must be with a female connector according to the regulations. It is therefore not possible to have a ring circuit arrangement.  
Only pluggable in the correct pole configuration: 1 pole cannot be connected.  
Contacts protected against strain on the cable. All components can be interlocked.  
DIN VDE 0606-200 requires the use of a locking device. Dangerous mismatching with installation connector systems of other suppliers is not automatically excluded by compliance with DIN VDE 0606 T200.  
Installation connectors do not replace national connector/outlet systems for home applications.

