# ESP M1R, M2R, M4R Series



FULL MODE Bonding + Equipment Protection

**C** ENHANCED Low let-through voltage

ACTIVE VOLT-FREE CONTACT

MAINS

**TEST** 

TVPF

1 + 2 + 3

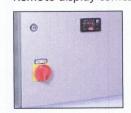
3-WAY + N-E FAULT STATUS INDICATION LPZ  $M1R 0_{B} \rightarrow 3$   $M2R 0_{A} \rightarrow 3$   $M4R 0_{A} \rightarrow 3$ 

REMOTE INDICATION LED DISPLAY

Combined Type 1, 2 and 3 tested protector (to BS EN 61643-11) for use on mains power distribution systems primarily to protect connected electronic equipment from transient overvoltages on the mains supply, e.g. computer, communications or control equipment. Remote display allows both display and protector unit to be mounted in their optimum positions. For use at boundaries up to LPZ  $0_{\rm A}$  to protect against flashover (typically the main distribution board location, with multiple metallic services entering) through to LPZ 3 to protect sensitive electronic equipment.

#### **Features and benefits**

- The remote display means the protector can be mounted close to the incoming feed or first way on the distribution board and the display in an easily visible position, e.g. on front of cabinet
- Very low let-through voltage (enhanced protection to BS EN 62305) between all sets of conductors (phase to neutral, phase to earth, neutral to earth – Full Mode protection)
- Full mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Innovative multiple thermal disconnect technology for safe disconnection from abnormal or faulty supplies
- Remote display gives three way visual indication of protection status and is easily installed using standard drilling tools
- Plug-in cable connections between protector and display enable easy connection (1m cable supplied as standard)
- ✓ Advanced pre-failure warning so you need never be unprotected
- Remote indication facility allows pre-failure warning to be linked to a building management system, buzzer or light
- Changeover active volt free contact enables the protector to be used to warn of phase loss (i.e. power failure, blown fuses, etc)
- Unique flashing warning of potentially fatal neutral to earth supply faults (caused by incorrect earthing, wiring errors or unbalanced conditions)
- Robust steel housing (protector), and sturdy ABS housing (display)
- Base provides ultra-low inductance earth bond to metal panels
- Remote display comes with integral fixings and a panel drilling template



Front view of a cabinet with the display unit, easily visible, mounted on the front of the door, whilst the protector unit is installed deep within

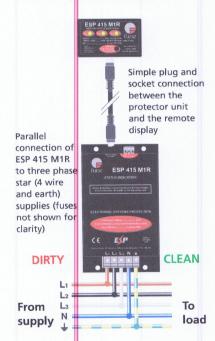
## **Application**

Use ESP M1R versions on main distribution panel for buildings with multiple metallic services (e.g. gas, water, telephone lines) and on sub-distribution boards feeding sensitive equipment. Use ESP M2R versions on main distribution panel for buildings with a Class III or IV structural LPS fitted or exposed 3 phase power lines where no LPS is fitted. Use ESP M4R versions on main distribution panel for buildings with a Class I or II LPS fitted.

### Installation

Installation of the protector unit is identical to the ESP M1, M2 or M4 Series.

Position remote display, making sure that the cable is long enough, is unimpeded within the cabinet, and allows a minimum of 60mm behind the panel front (for the interconnection cable).



## **Accessories**

**ESP RLA-1** 

Spare 1 metre cable assembly

**ESP RLA-4** 

Spare 4 metre cable assembly

**ESP RDU** 

Spare display unit

For three phase applications where a remote display is unnecessary, use the respective ESP M1, M2 or M4 Series.