

Earthing & Sockets

Safety behind the socket

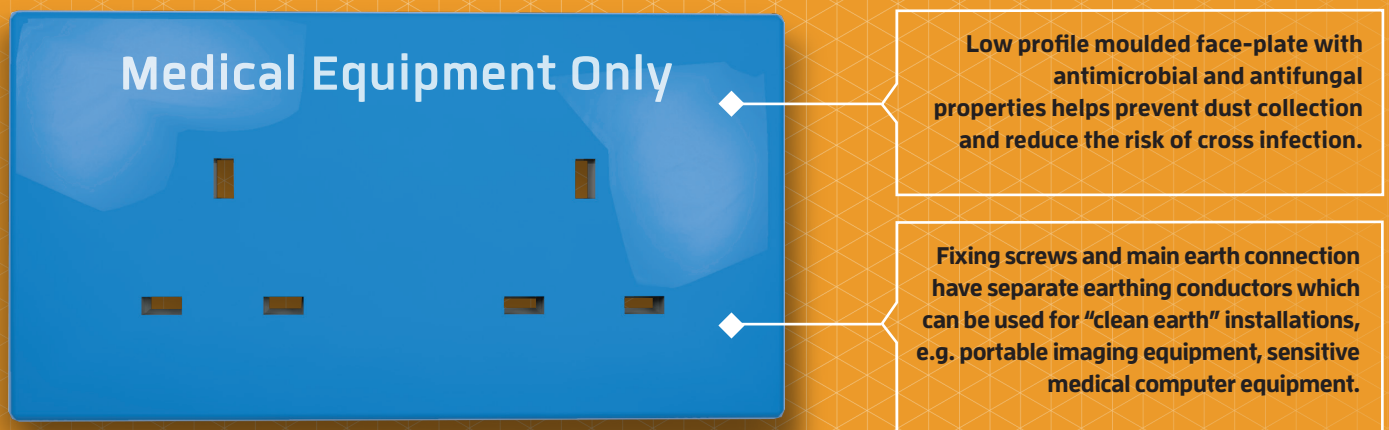


starkstrom
a **Progility** company
Powering Healthcare

Earthing & Sockets

Designed to prevent hazardous voltages occurring on medical equipment and reducing the likelihood of electric shocks to patients and healthcare staff.

Starkstrom's Equipotential Bonding BusBar ensures there is only one earth in any medical location. Clean Earth Blue Sockets have a main earth separate from the fixing screws earth to help isolate possible electrical noise in the room's earth conductors from the earth pin of the socket via the fixing screws. Equipotential Earth Bonding Plugs and Sockets create an equipotential earth bonded zone to help prevent significant touch voltages. These devices form a part of the protective system.



Electrical Sockets

Blue 'Medical Equipment Only' Sockets are designed to distinguish between different electrical sockets to prevent medical equipment being plugged into non-IPS sockets and non-medical equipment being plugged into IPS sockets.

Benefits

- Identifies IPS sockets in compliance with BS7671 Installation standard.
- Enhanced electrical earth separation (if required) by having separate earth connections for circuits and infrastructure.
- Easy to clean to help improve infection control.

SEEB Plugs & Sockets

Starkstrom's Supplementary Equipotential Earth Bonding (SEEB) Plugs and Sockets are fundamental in creating an equipotential earth bonded zone and helping to prevent significant touch voltages within the medical location.

Under BS7671 Standard, the following requirements for equipotential earth sockets (EES) must be followed:

- Group 1: a minimum of one EES per patient location.
- Group 2: a minimum of four EES but not less than 25% of the number of medical IT socket-outlets provided per patient location.

SEEB Socket



A black coloured panel receptacle with a green/yellow coloured ring. The SEEB socket is normally fitted to Clinical Pendants, Surgeon's Panels, Bedhead Trunking or a Flush Wall Box.

SEEB Angle Plug



The SEEB Plug is made of nickel plated brass. Crimp connections are made of copper and can accommodate a highly flexible 4mm² or 6mm² conductor. The plug is designed to be permanently fitted to any metal conducting part of equipment trolleys via a flying earth lead fitted by the end-user.

All medical electrical equipment or exposed conductive surfaces within the medical location, that are not equipotentially bonded as part of the permanent medical electrical installation, should be connected to a SEEB Socket using a SEEB Plug and permanently fitted with a highly flexible conductor: flying earth lead.

Standards & Guidelines

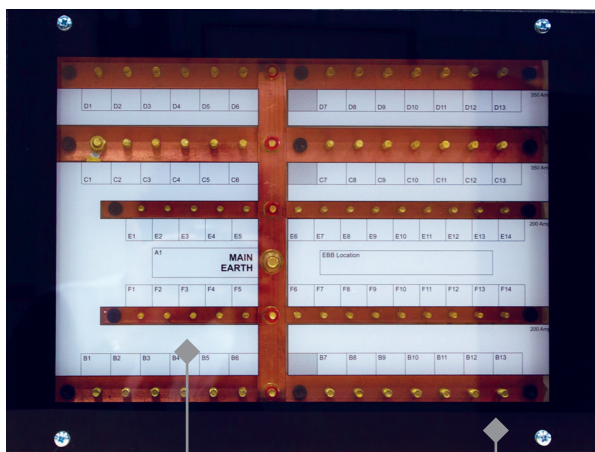
- Electrical Services Supply and Distribution (HTM 06-01).
- Requirements for Special Installations – Medical Locations (HD 60364-7-710).
- Requirements for Electrical Installations (BS7671).
- IET Guidance Note 7 - (5th Edition) 2015.

Earthing

Equipotential Bonding Busbars (EBB) are designed to help create the same electrical potential (to within 0.1 ohms) between the EBB and all bonded metal objects in the medical location and provide easy visual inspection and identification of connected circuits. This also applies to Earth Reference Bars (ERB).

Benefits

- Improved process of fault detection and correction, saving time and cost.
- Enhanced safety for patients and clinical staff by reducing the likelihood of electric shocks.



Each earth connection visible through clear front cover and individually identified with a unique reference number.

Available as flush or surface mounted models

Starkstrom offers:

Equipotential Bonding Busbar - (EBB)

Type 8 - (suitable for Group I & 2 medical locations)¹

Earth Reference Bar (ERB)

Type 7 - (suitable for Group I & 2 medical locations)²

EBB/ERB

Type 0 - (suitable for Group I medical location)¹

¹IET / BS7671 Standard ²Archived MEIGAN Standard

All earth connections to the EBB or ERB are by means of a dedicated cable from each medical equipment socket or exposed metalwork, allowing easy visual inspection and periodic testing.



Starkstrom Head Office
Eastcote, HA4 9UW. UK
T: +44 (0)20 8868 3732
E: info@starkstrom.com

Progility Technologies Pvt Ltd
Mumbai - 400083. India
T: +91 22 7144 7000
E: india@progilitech.com