

# Bond-Rite<sup>®</sup> REMOTE



The precision and reliability of the **Bond-Rite REMOTE** provides enhanced safety and security by continuously testing the connection of the clamp to the container or other conductive item of plant in a complete loop made through the designated grounding point.

The **Bond-Rite REMOTE** delivers a continuously monitored circuit between grounded equipment and verified ground points (e.g. wall-mounted bus bar).

The pulsing green LED provides process operators with a continuous visual reference point that enables them to monitor the ground status of equipment at risk of accumulating static electricity and discharging static sparks.

The standard GRP enclosure is static dissipative and suitable for general processing environments. The stainless steel enclosure (SS 316) is designed to cater for hygienic or corrosive environment specifications.

Both enclosures provide a minimum IP 65 degree of ingress protection and are suitable for both indoor and outdoor installation.

The Bond-Rite REMOTE can be powered with an intrinsically safe 9V battery (included). The **Bond-Rite REMOTE EP** utilizes an external 230/115 V AC power supply which can power up to 10 individual indicator stations.

The flexible external power supply can be located in both the 'hazardous' (Zone 2/22 - Div.2) and 'non-hazardous' areas, with the indicator stations mounted in the zoned / HAZLOC area (Zone 0 / Div.1) or lower.



**Bond-Rite REMOTE** in static dissipative GRP enclosure.



**Bond-Rite REMOTE** in stainless steel enclosure.



**Bond-Rite REMOTE EP** external power supply can power up to 10 indicator stations.

### Europe / International:

#### IECEX

Ex ia IIC T4 Ga (Gas & Vapour).  
Ex ta IIIC T135°C Da (Combustible Dusts).  
Ta = -40°C to +60°C.  
IECEX SIR 09.0023X  
IECEX certifying body: SIRA.

#### ATEX

Ex II 1 GD  
Ex ia IIC T4 Ga  
Ex ta IIIC T135°C Da  
Ta = -40°C to +60°C.  
Sira 09ATEX2158X  
ATEX Notified Body: SIRA.

### North America:

#### NEC 500 / CEC (Class & Division)

Intrinsically safe equipment Exia for use in:  
Class I, Div. 1, Groups A, B, C, D.  
Class II, Div. 1, Groups E, F, G.  
Class III, Div. 1.  
Ta = -40°C to +60°C.  
Ta = -40°F to +140°F  
BRR-Q-11185 cCSAus  
OSHA recognized NRTL: CSA.

#### NEC 505 & 506 (Class & Zoning)

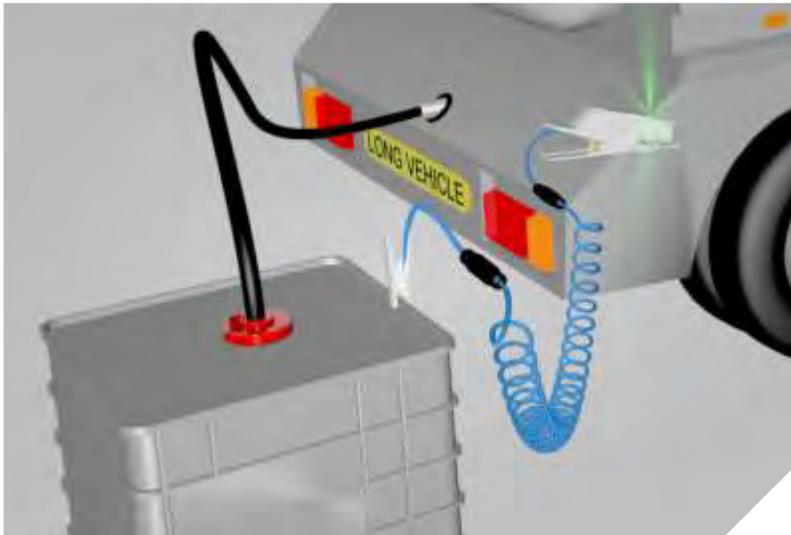
Class I, Zone 0, AEx ia IIC T4 Ga (Gas & Vapour).  
Class II, Zone 20, AEx iaD 20 T135°C, (Combustible Dusts).

#### CEC Section 18 (Class & Zoning)

Class I, Zone 0, Ex ia IIC T4 Ga  
DIP A20, IP66, T135°C

[Click here for more information](#)

## Bonding equipment with a portable bonding device with indication



In scenarios where objects need to be bonded to prevent sparks from discharging between the objects, operators normally utilise bonding cables with basic clamps or alligator clips connected at both ends. Providing process operators with a visual indication of a verified bond ensures operators do not proceed with the transfer unless they know both objects are the same voltage.

Applications where bonding can be required ranges from trans-loading products from one mobile source to a mobile or fixed container. Such operations typically fall into two modes of product transfer.

One mode is called “trans-loading” which involves transferring product from a large, mobile bulk container, like a road tanker or railcar, into a smaller mobile object like an intermediate bulk container or a drum (and vice-versa).

Another common mode of product transfer is where a product is being manually deposited from a hand held container into another container or a process vessel. Bonding both the source container and receiving vessel ensures there can be no static sparks discharges between both objects, especially when they are in such close proximity.

It must be emphasised that bonding conductive objects ensures both objects are the same voltage, thereby eliminating the risk of sparking between both objects.

It does not mean that the bonded objects will not discharge sparks to objects at a lower voltage, particularly objects that are grounded (i.e. have no voltage as they are connected to the mass of earth).

The optimum solution is to provide operators with a visual verification of a secure and continuous bond between the objects and ensure that one of the objects is connected to a verified ground source.

**Both IEC 60079-32-1, 13.1 “Earthing and bonding” and NFPA 77, 7.4. “Charge Dissipation” state:**

Bonding is used to minimize the potential difference between conductive objects to an insignificant level, even where the resulting system is not earthed (grounded). Earthing, on the other hand, equalizes the potential difference between the objects and the earth.

**API RP 2003, 3.2 “Bonding” states:**

The practice of providing electrical connections between isolated conductive parts of a system to preclude voltage differences between the parts.

In field use, a strong wire resistant to physical damage may be needed, in which case a bond wire may be sized for physical or mechanical strength.

The process of connecting two or more conductive objects together by means of a conductor so that they are the same electrical potential does not necessarily mean they are the same potential the earth.