

Bond-Rite[®] CLAMP

The self-testing static grounding clamp

In many branches of the process industries, fires and explosions can result from electrostatic discharge in hazardous areas. Even relatively small sparks have sufficient energy to ignite many flammable vapours, gases and even airborne dusts. In situations where this risk exists, static grounding (earthing) and bonding clamps are required wherever mobile or portable conductive plant items (such as drums and vessels etc) are used. In these applications, it is necessary for the clamp to make a low resistance contact with the object, to enable any static to be safely dissipated to ground (earth) via a suitable conductor before the energy available for discharge builds up to dangerous levels.

If the correct clamp has been selected for the application and the object to be grounded does not have surface insulation, then it should be possible to make good enough contact to prevent static accumulation. However, in practice, many drums, containers and other equipment have coated surfaces (even when new). This problem is compounded in use due to build up of further insulating layers such as paint, resins, adhesives and other products inherent to the processing environment.



In tests, many standard grounding clamps in use today show very high resistance readings when clamped onto conductive objects with insulating surfaces. This may result in the clamp appearing to be physically attached, but not actually performing its intended function (i.e. dissipating static electricity safely).

The revolutionary design of the Bond-Rite clamp provides enhanced safety and security by continuously testing the connection of the clamp to the container or other conductive item of plant, it provides visual verification of this condition to the operator via the flashing green LED.

- **Simple to operate**
- **Intrinsically Safe**
- **Internal battery for ease of installation**
- **Water and dust tight**
- **Stainless steel body**
- **Pulsing green LED indicator**
- **Tungsten carbide teeth**
- **Unique clamping action**
- **Patents pending**



TECHNICAL INFORMATION

Clamp

Stainless Steel

Ingress Protection

IP65

Twin Contact Points

Tungsten Carbide

In-Line Quick-Connect

IP68 quick-release connector to aid battery changing

Jaw Opening

26 mm max.

Battery

9v Lithium Manganese ULTRALIFE U9VL-J battery included

Monitoring Set Point

10 Ohms

Certification

II 1 GD EEx ia IIC T4

FM APPROVED IS, Class I, II & III,

Division Groups

1A, B, C, D, E, F & G T4

European & US Patents Pending

The Bond-Rite clamp may be used with either twin or single core grounding cables, in the configuration known as **Ground Loop Monitoring (GLM)**, where two core grounding cables are used, there is the added benefit of also confirming the integrity of the cable and its connection to the earthing point or bus bar via the in-line quick-connect: see fig 1.

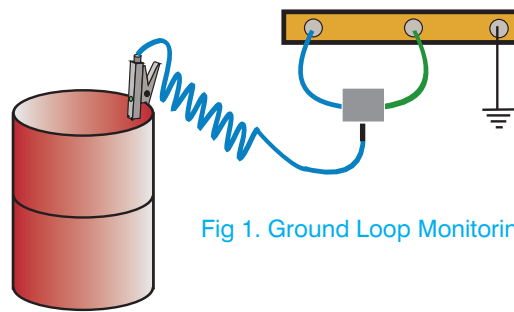


Fig 1. Ground Loop Monitoring



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Standard Configurations

Ordering Code	Product Description	Configuration
VESC52	Bond-Rite c/w 5m(16ft) two core blue Hytrel coated spiral cable, in-line quick-connect, junction box with earth connection cables and clamp stowage point.	Ground loop monitoring
VESC55	Bond-Rite c/w 5m (16ft) single core green Hytrel coated spiral cable and connection lug, in-line quick-connect and clamp stowage point.	Clamp monitoring
VESC55	Bond-Rite c/w in-line quick-connect for use with cables or cable reels	Ground loop or Clamp monitoring

Options

- Hytrel coated spiral cables in various lengths (see Cen-Stat datasheet)
- Full range of Static discharge reels (see Reels datasheet)
- Additional earth connection junction boxes with quick-release sockets for multiple installations

The Bond-Rite forms part of the Bond-Rite range of Static Grounding and Bonding Equipment available from Newson Gale



Leading the way in hazardous area static control

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