



# Newson Gale

Leading the way in hazardous area static control

READ MANUAL  
BEFORE COMMENCING  
WITH INSTALLATION

## **Bond-Rite CLAMP** the self testing static grounding clamp



## **Installation and Operating Instructions**

[www.newson-gale.com](http://www.newson-gale.com)

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## Verification of the Static Earthing Point

The system monitors the static dissipation path, from the object to which the Static Earthing Clamp or lead is connected to, as far as the Static Earthing Point.

It is the responsibility of the end user to provide the Static Earthing Point and ensure that it is suitable for dissipating electrostatic charges. Reference to ATEX 95, ATEX 137, EN 60079-14, CLC/TR 50404, or other equivalent international standard, will give guidance on the installation of a suitable Static Earthing Point.

**IF YOU HAVE ANY QUERIES REGARDING THE ABOVE POINTS THEN PLEASE CONTACT NEWSON GALE WITHOUT DELAY.**

# Bond-Rite CLAMP

## The self testing static grounding clamp

### Operating Instructions

With regard to the relevant Essential Health & Safety Requirements (EHSRs) of the ATEX Directive 94/9/EC, the following declarations are made with respect to the Bond-Rite Self Testing Clamp:

#### EHSR 1.0.3:

The following special checking or maintenance conditions are required for the safe operation of the equipment:

The LED flashes when the clamp is operating correctly and is monitoring a good bonding connection.

If the LED does not flash when the clamp is attached to a conductive item then it should be checked as follows:-

Check the condition of all associated cable terminations. Adjust as necessary.

Connect the clamp onto a clean piece of metal. The LED should now flash.

If the LED does not flash replace the battery in accordance with the instructions, in a safe area.

Again connect the clamp onto a clean piece of metal. The LED should now flash.

If the LED still fails to show please contact Newson Gale for further advice.

#### EHSR 1.1.2:

The constructional materials of the equipment are deemed to be suitable for the intended use.

The following adverse service conditions have been identified and have been considered in the design and manufacture of the equipment:

Ambient temperature range -20°C to +40°C

#### EHSR 1.2.2:

Components to be incorporated into or used as replacements in equipment have been so designed and constructed that they function safely for their intended purpose of explosion protection when they are installed in accordance with the manufacturer's instructions.

### Battery Replacement

The clamp is fitted with a short length of cable and an in-line quick connector. Unscrew the connector locking-ring and pull apart the two sections. Move the clamp to a safe area such as a workshop.

Use the correct tool to remove the screws which retain the pcb housing lid.

Carefully remove the battery and replace with an identical new battery (Ultralife U9VL-J).

Replace the housing lid and replace the screws.

The Bond-Rite is not designed to be permanently connected.

The battery life is approximately 1 year with a duty cycle of 3 hours per day.

For battery information log onto [www.allbatteries.com](http://www.allbatteries.com)

### Operation

Attach the Bond-Rite clamp to the item to be grounded (drum, IBC, bucket etc).

If the connection is good (less than 10 Ohms loop resistance) then the green LED lamp should flash at a rate of about 1 flash per second.

If the LED does not flash then the connection resistance is too high. Check the placement of the clamp to ensure a good, positive connection.

The Bond-Rite must have a connection to ground in order to dissipate static electricity.

## Installation and Maintenance

Installation of this equipment shall be carried out by suitably trained personnel in accordance with the applicable code of practice (EN 60079-14 within Europe).

The system should be connected as per the relevant installation drawings.

## Spare Parts

Replacement Bond-Rite Clamp [Code VESC50](#)

LED Assembly [Code VESI02](#)

Ultralife Battery U9VL-J [Code VESB50](#)

Repair of this equipment shall be carried out by the manufacturer.

**NB:** Use only genuine replacement parts. Contact your distributor for all spare parts.



If you are in any doubt regarding the installation please contact Newson Gale without delay.

## Bond-Rite Technical Specification

Ingress protection	IP65
Maximum ambient temperature	40° C
Certification	EEx ia IIC T4 II 1GD
Certificate No.	Sira 00ATEX2199X
Approval authority	Sira Test & Certification
Operational ground resistance	10 Ohm maximum.
Indicator Lamp	LED: 1 green (earth connection healthy)

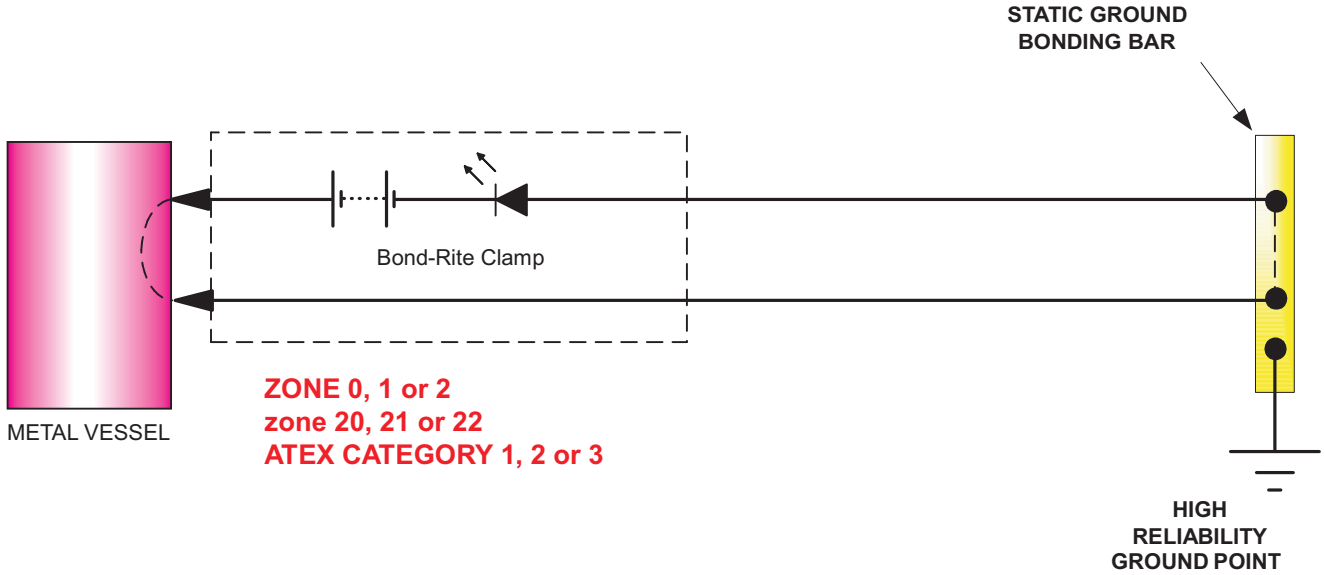
**NB:** In line with our policy of continual product development, we reserve the right to alter specifications at any time.

## Bond-Rite Certification Label

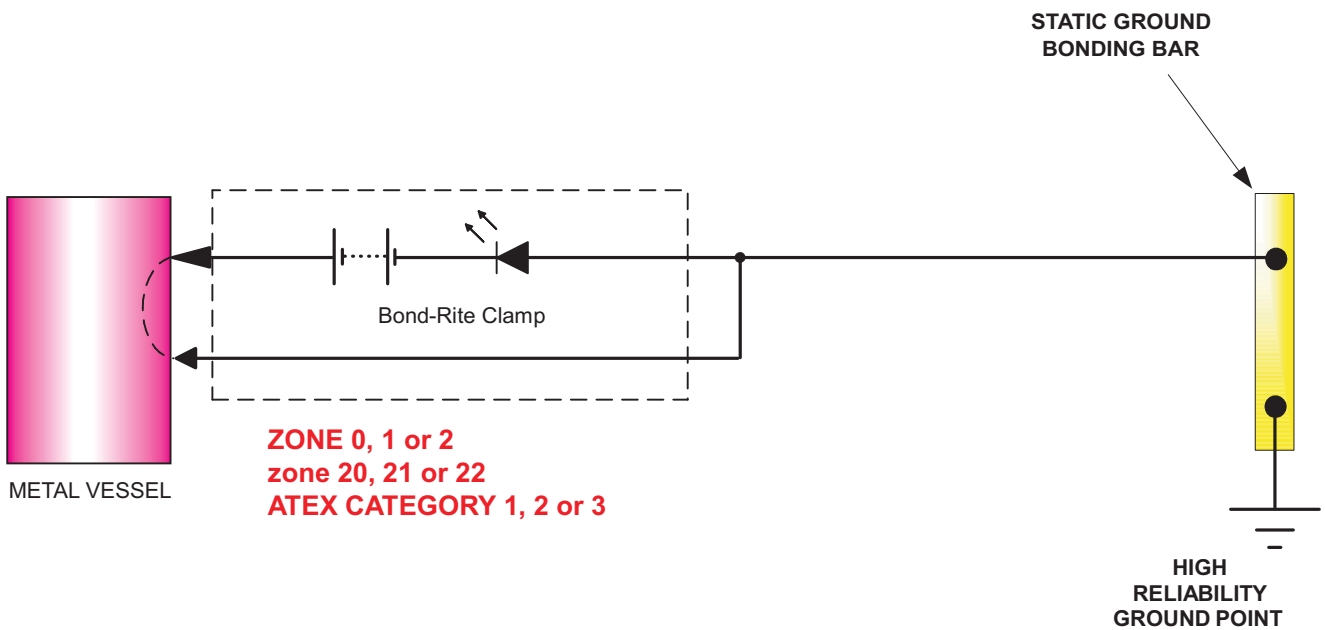
<p><b>SELF MONITORING CLAMP</b> <b>EEx ia IIC T4</b> <b>SIRA 00ATEX2199X</b></p> <p> <b>0518</b>  <b>II 1GD</b></p> <p>FOR SERIAL NUMBER PLEASE SEE INSIDE ENCLOSURE</p>	<p>Newson Gale Ltd Nottingham NG4 2JX UK</p> <p>DO NOT OPEN BATTERY ENCLOSURE IN A POTENTIALLY EXPLOSIVE ATMOSPHERE</p>
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# Bond-Rite - EQUIVALENT CIRCUITS

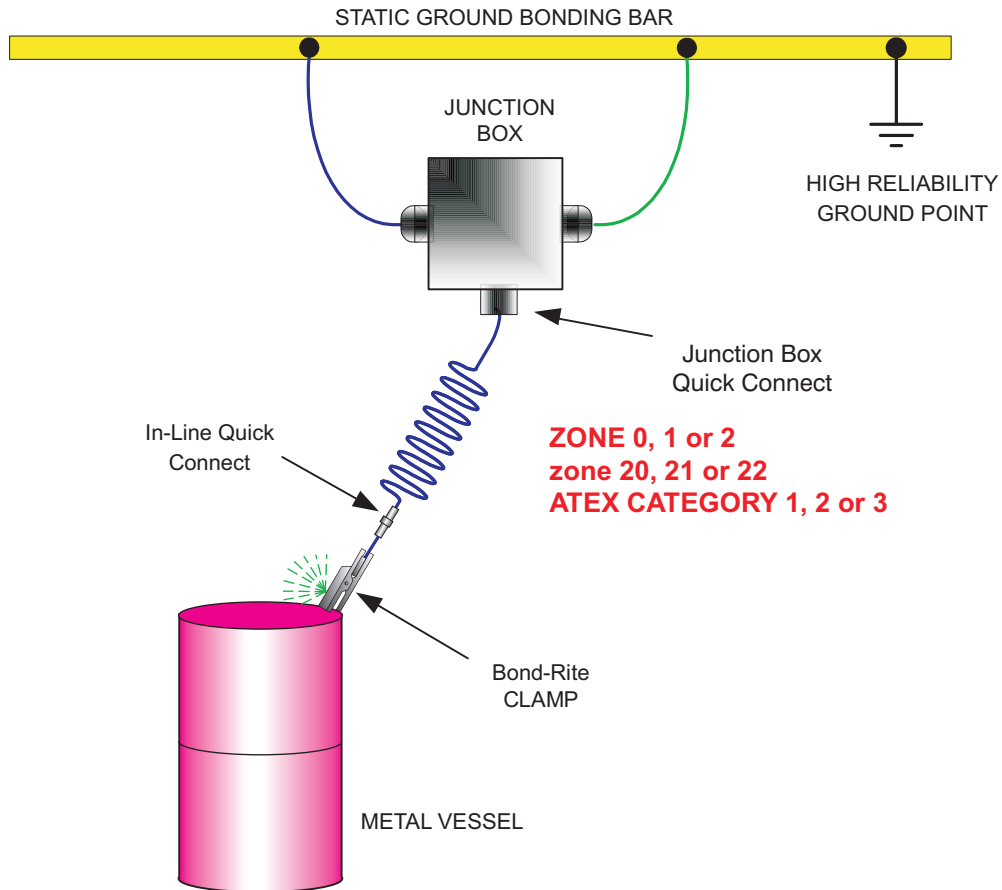
## GROUND-LOOP MONITORING (G.L.M.) ARRANGEMENT



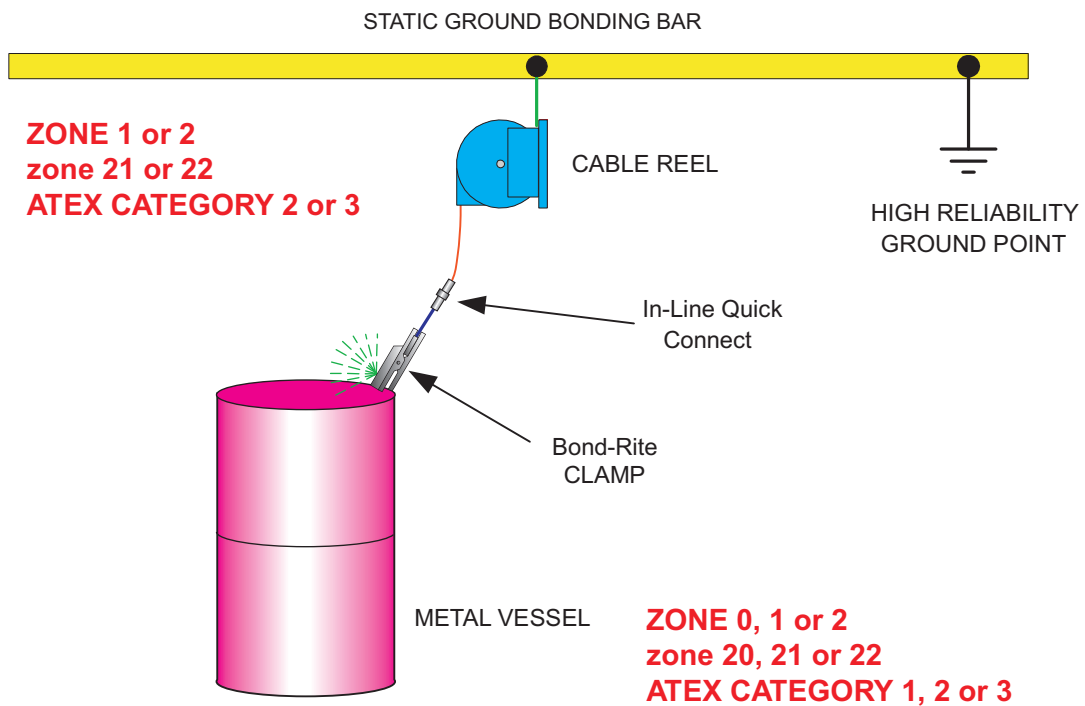
## CLAMP MONITORING (C.M.) ARRANGEMENT



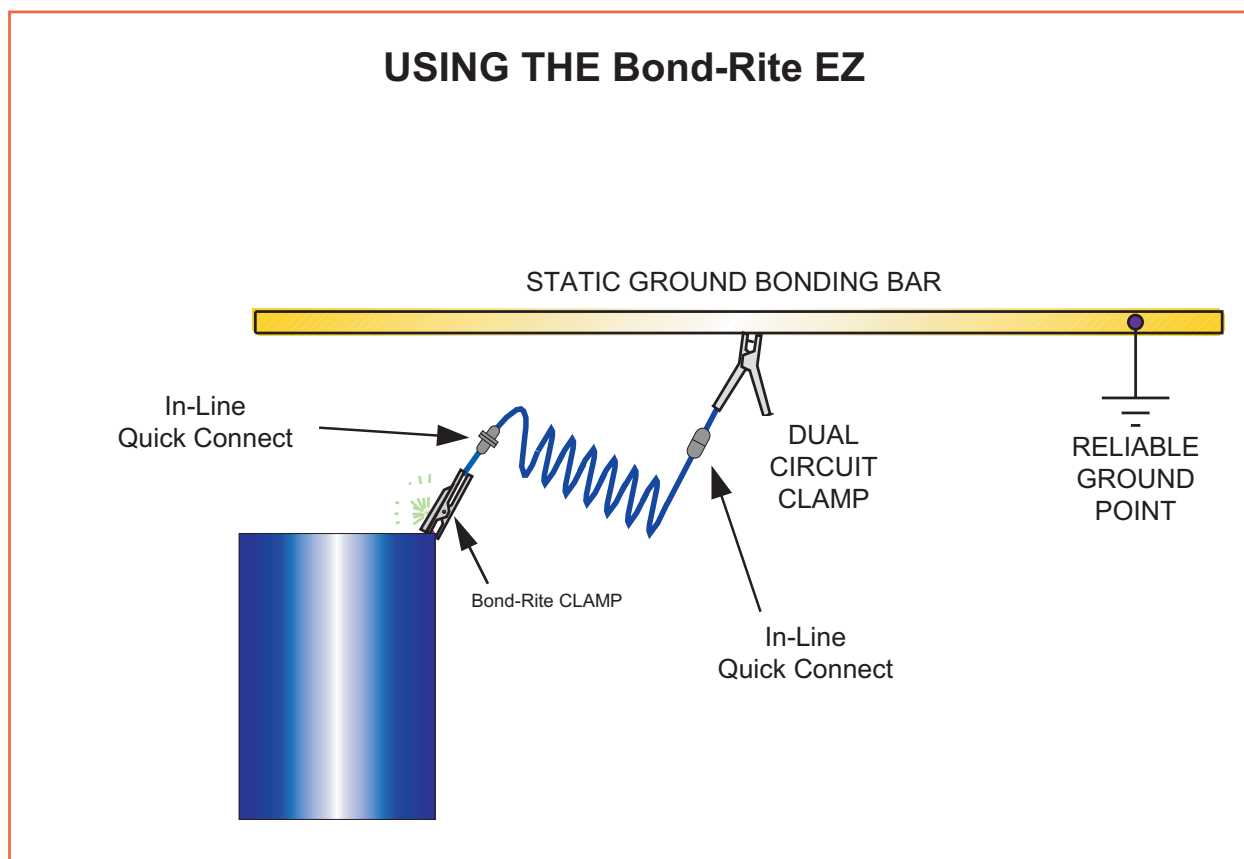
## INSTALLATION OF GLM Bond-Rite WITH GRP JUNCTION BOX



## INSTALLATION OF CLAMP MONITORING Bond-Rite



## USING THE Bond-Rite EZ



### Operation

Attach the Bond-Rite clamp to the item to be earthed (drum, IBC, bucket etc).  
Attach the dual circuit clamp to a verifiable earth conductor such as the static ground bonding bar.

**Note:** The Bond-Rite is designed to prevent the build up of an incandive electrostatic charge during a mixing or transfer operation. Care should be taken to ensure that there is no static charge built up on the item before attaching the clamp.

If the connection is good (less than 10 Ohms loop resistance) then the green LED lamp should flash at a rate of about 1 flash per second.

If the LED does not flash, although the battery is in good condition, then the connection resistance is too high. Check the placement of the Bond-Rite clamp to ensure a good, positive connection.

The Bond-Rite lead must have a connection to earth in order to dissipate static electricity.

### Battery Replacement

Move the clamp to a safe area such as a workshop.  
Use the correct tool to remove the screws which retain the pcb housing lid.  
Carefully remove the battery and replace with an identical new battery (Ultralife U9VL-J).  
Replace the housing lid and replace the screws.



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