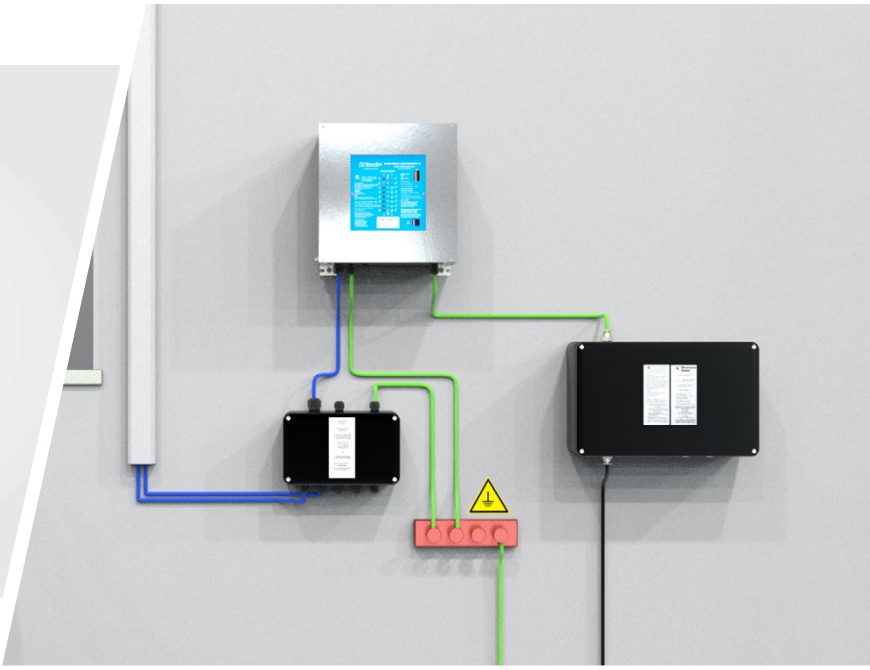
ATEX IECEx

Global certification available

Online Enquiry >

Earth-Rite® MULTIPOINT II

Static Grounding System



Earth-Rite MULTIPOINT II *Static Grounding System*

To ground and monitor multiple items of equipment at points like multi drum loading stations and mixing stations, IBC loading stations and railcar loading gantries, a large number of conventional static grounding systems would be required to minimize the accumulation of static electricity. In addition to flammable liquid and gas operations, powder processing equipment that typically includes interconnected pipes, fluid bed dryers, hoppers and micronizers would require multiple grounding systems. With the Earth-Rite® MULTIPOINT II up to eight individual items of potentially isolated equipment can be ground monitored simultaneously with a single static grounding system.

The Earth-Rite MULTIPOINT II is an ATEX / IECEx / cCSAus certified static grounding system which identifies when equipment exceeds ground resistance levels outlined in recommended practice documents like IEC TS 60079-32-1 and NFPA 77.

The system consists of a hazardous area monitoring unit that contains eight pairs of red and green LED indicators that verify when the equipment at risk of static charge accumulation has a resistance of 10 Ohms or less to the plant's designated true earth grounding point.

For applications where ground monitoring indication is required at the point of operation (e.g. drum filling) local ground status indicator stations can be specified.

Each monitoring channel interfaces with it an individual volt free contact as standard. In addition to the 8 individual volt free contacts a group relay is provided so that multiple ground monitoring channels can be setup to provide a permissive / non-permissive condition to external equipment (e.g. PLCs, pumps, valves, sounders).

Earth-Rite MULTIPOINT II applications include:

- multiple railcar loading points
- multiple drum / tote loading points
- liquid / powder mixing and blending
- powder conveying equipment
- fluid bed dryers
- silo / container filling and emptying
- hoppers and dust collectors
- powder micronizing, pulverising and grinding equipment

Earth-Rite® MULTIPOINT II

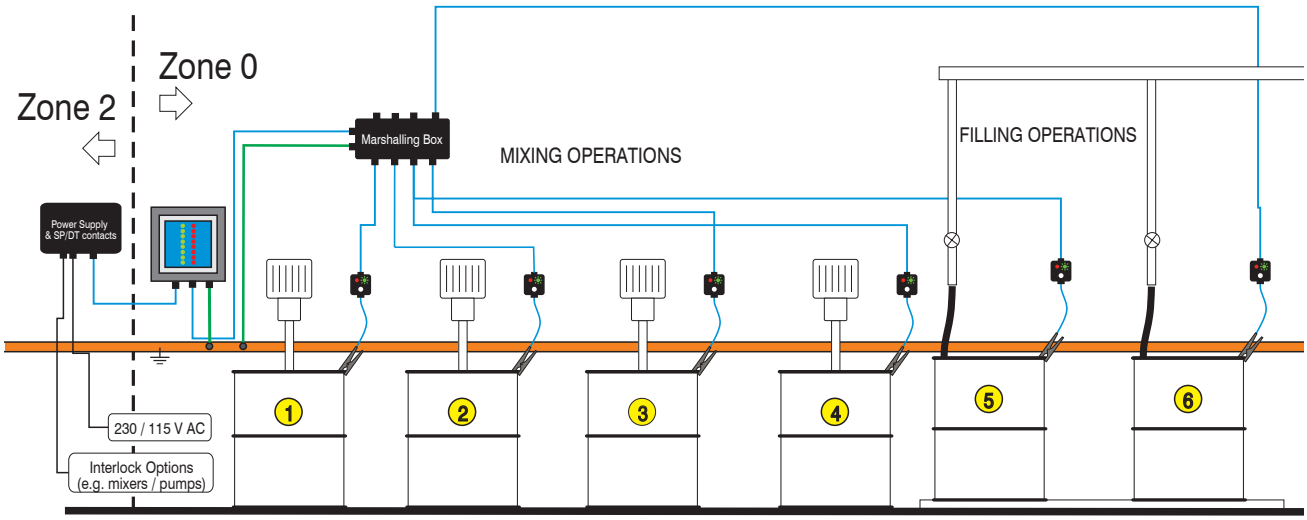
The **Earth-Rite MULTIPOINT II's** monitoring unit contains 8 pairs of LED ground status indicators (red and green).

The **Earth-Rite MULTIPOINT II's** energy efficient remote indicator stations provide ground status indication for each individual channel. The attention grabbing high intensity GREEN LED pulses continuously when a positive ground connection is made.

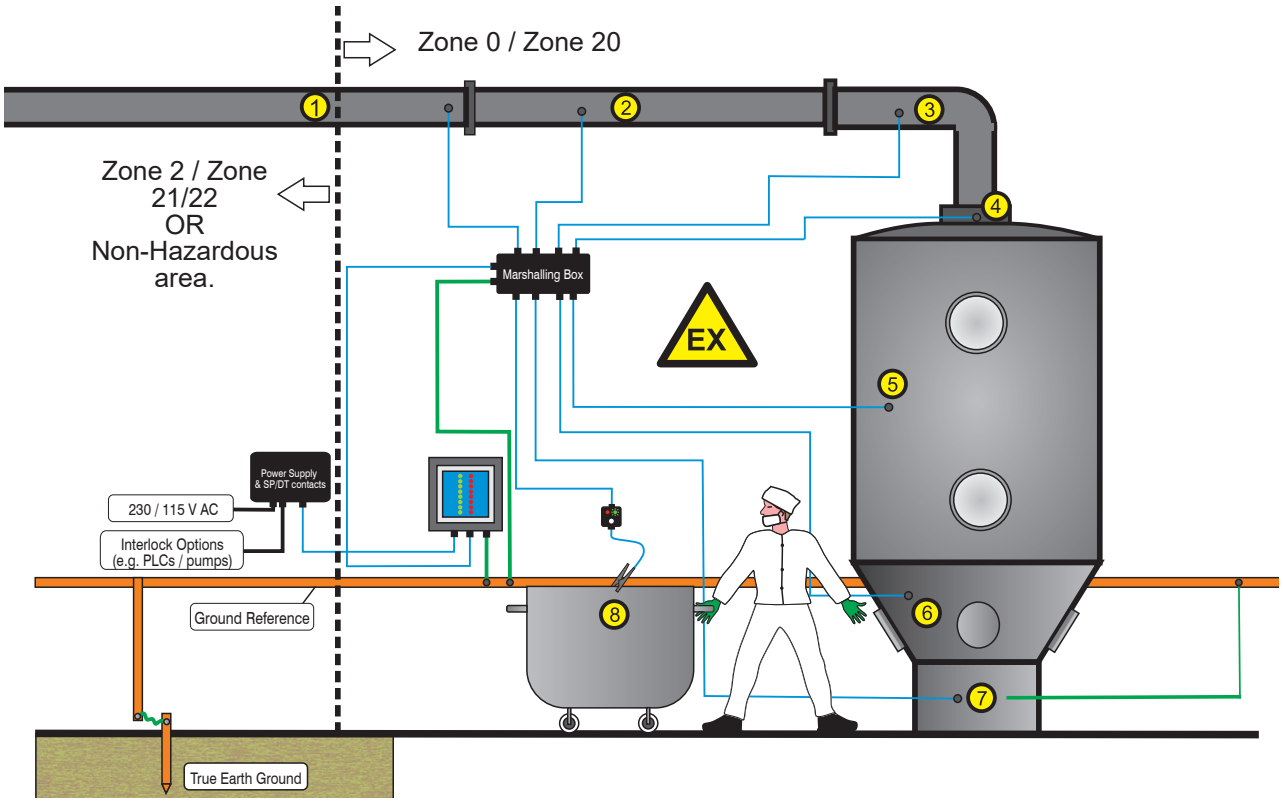
The **Earth-Rite MULTIPOINT II's** 230 V/110 V AC power supply unit houses eleven (11) SP/DT volt free contacts. 8 of these interface with each monitored grounding channel, 2 provide the grouped channel function and 1 relay provides the fail-safe redundancy output function.

The **Earth-Rite MULTIPOINT II's** 4 way and 8 way marshalling junction boxes link the monitoring unit with the external ground connection points and external LED ground status remote indicator stations. The marshalling boxes can be supplied as GRP and stainless steel.

Earth-Rite® MULTIPOINT II



The Earth-Rite MULTIPOINT II's monitoring unit and power supply can be configured to ground and monitor a wide range of equipment. In this example the system is setup to ground four mixing stations (1 to 4) and two filling stations (5 and 6). Each mixer is interlocked with an individual relay corresponding to the equivalent ground monitoring channel. Channels 5 and 6 are grouped via the group relay so that if either drum is not grounded the pump feeding the filling station is shut down immediately, thereby mitigating the build up of static on the drums.



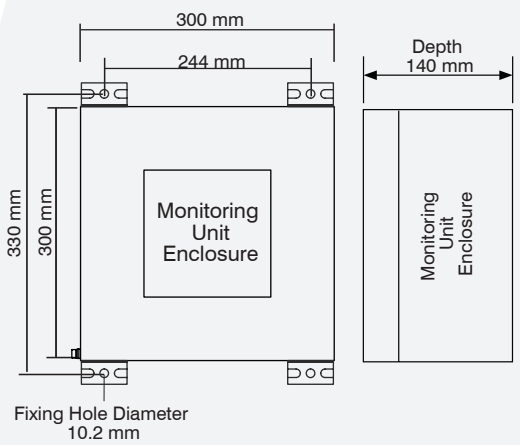
In this example the Earth-Rite MULTIPOINT II is configured to ground multiple interconnected components for a fluid bed dryer system. The marshalling box feeds seven channels out to seven permanent ground connection points [the connection points may be disconnected for routine cleaning, inspection and maintenance].Channels 1 to 7 are grouped together to provide a single output contact controlling the flow of powder into the fluid bed dryer. Channel 8 utilises an external ground status LED remote indicator station/ clamp/cable to provide the operator with a visual confirmation that the mobile bin is grounded when filled.

Earth-Rite® MULTIPOINT II

Technical Specification
(with GRP power supply)

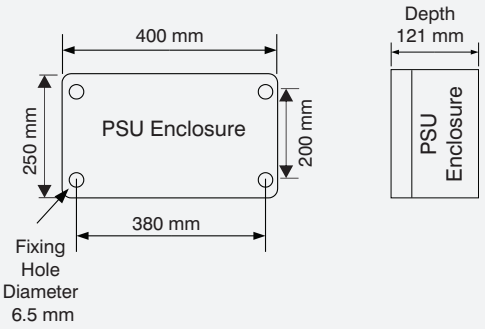
Monitoring unit
Zone 0/20 Installations

Ambient Temperature Range	-40°C to +60°C
Ingress Protection	IP 66
Construction	Stainless Steel (SS grade: 304)
Monitoring Circuit	Intrinsically safe
Monitoring Loop Resistance	Nominally ≤10 Ohm (± 10%)
Cable Entries	3 x M20, 1 x M25



Power Supply Unit
Zone 2/21 Installations

Power Supply	115 V or 230 V AC, 50-60 Hz
Current Rating	200 mA
Power Rating	10 Watts
Ambient Temperature Range	-40°C to +60°C
Ingress Protection	IP 66
Construction	GRP with carbon loading
Output to Monitoring Unit	Intrinsically safe
Output Channel Relay	8 off Voltage free change over switch contacts
Output Group Relay	2 off Voltage free change over switch contacts
Output Fault Relay	1 off Voltage free change over switch contacts
Relay Contact Rating	240 V AC, 5 A, 500 VA max resistive 30 V DC, 2 A, 60 W max resistive
Cable Entries	12 x M20



Marshalling Junction Box

Enclosure Material	GRP with carbon loading
Cable Entries	8 Way - 10 x M20, 1 x M25 4 Way - 6 x M20, 1 x M25

Remote Indicator Station
Associated Apparatus - Zone 0/20 installation

Enclosure Material	GRP with carbon loading
Cable Entries	1x M20

Product Description	Length	Height	Depth
8-Way Junction Box	259 mm	160 mm	91.4 mm
4-Way Junction Box	160 mm	160 mm	94 mm
Remote Indicator Station	122 mm	122 mm	76.2 mm
Junction Box with Stowage Pin	80 mm	76.2 mm	55.9 mm

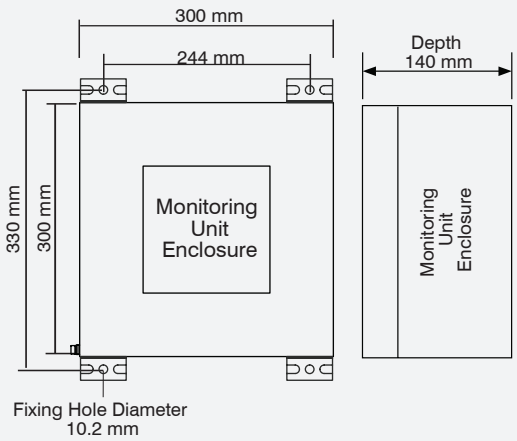
For more detailed mechanical descriptions please refer to instruction manual

Earth-Rite® MULTIPOINT II

Technical Specification
(with stainless steel power supply)

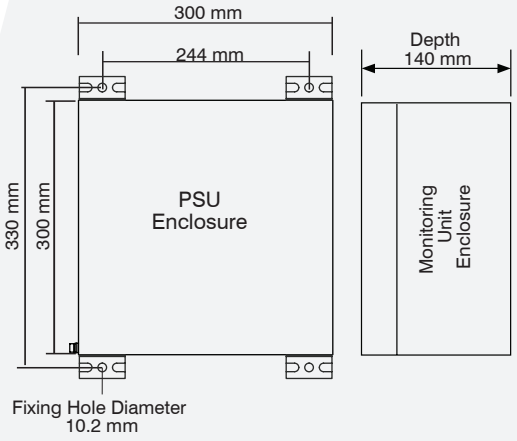
Monitoring unit
Zone 0/20 Installations

Ambient Temperature Range	-40°C to +60°C
Ingress Protection	IP 66
Construction	Stainless Steel (SS grade: 304)
Monitoring Circuit	Intrinsically safe
Monitoring Loop Resistance	Nominally ≤10 Ohm (± 10%)
Cable Entries	3 x M20, 1 x M25



Power Supply Unit
Zone 2/21 Installations

Power Supply	115 V or 230 V AC, 50-60 Hz
Current Rating	200 mA
Power Rating	10 Watts
Ambient Temperature Range	-40°C to +60°C
Ingress Protection	IP 66
Construction	Stainless Steel (SS grade: 304)
Output to Monitoring Unit	Intrinsically safe
Output Channel Relay	8 off Voltage free change over switch contacts
Output Group Relay	2 off Voltage free change over switch contacts
Output Fault Relay	1 off Voltage free change over switch contacts
Relay Contact Rating	240 V AC, 5 A, 500 VA max resistive 30 V DC, 2 A, 60 W max resistive
Cable Entries	12 x M20



Marshalling Junction Box

Enclosure Material	Stainless Steel (SS grade: 304)
Cable Entries	8 Way - 10 x M20, 1 x M25 4 Way - 6 x M20, 1 x M25

Remote Indicator Station
Associated Apparatus - Zone 0/20 installation

Enclosure Material	Stainless Steel (SS grade: 304)
Cable Entries	1x M20

Product Description	Length	Height	Depth
8-Way Junction Box	300 mm	200 mm	81 mm
4-Way Junction Box	150 mm	150 mm	81 mm
Remote Indicator Station	150 mm	150 mm	81 mm
Junction Box with Stowage Pin	150 mm	150 mm	81 mm

For more detailed mechanical descriptions please refer to instruction manual

Earth-Rite® MULTIPOINT II

Hazardous Area Certification

Monitoring Unit

Europe / International:	North America Version Available:
IECEx	***NEC 500 / CEC (Class & Division)***
Ex ia IIC T4 Ga Ex ia IIIC T135ºC Da Ta = -40ºC to +60ºC IECEx EXV 19.0062X IECEx Certifying Body: ExVeritas	Suitable for use In Class I, Div. 2, Groups A, B, C, D Class II, Div. 1, Groups E, F, G Class III, Div. 1 Provides intrinsically safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G Class III, Div. 1; When installed per Control Dwg; X MPII Q15152 Ta = -40°C to +60°C (-40°F to +140°F)
ATEX	OSHA recognised NRTL: CSA CSA 15.70005381
Ⓔx II 1GD Ex ia IIC T4 Ga Ex ia IIIC T135ºC Da Ta = -40ºC to +60ºC ExVeritas 19ATEX0546X ATEX Notified Body: ExVeritas	***NEC 505 & 506 (Class & Zoning)*** Class I, Zone 2, AEx nA[ia Ga] nC IIC T4 Gc (Gas & vapour) Class II, Zone 21,AEx tb IIIC T65ºC Db (Combustible Dusts)
	CEC Section 18 (Class & Zoning) Ex nA[ia Ga] nC IIC T4 Gc Ex tb IIIC T65ºC Db

Power Supply Unit

Europe / International:	North America Version Available:
IECEx	***NEC 500 / CEC (Class & Division)***
Ex ec[ia Ga] nC IIC T4 Gc Ex tb IIIC T65ºC Db Ta = -40ºC to +60ºC IECEx EXV 19.0062X IECEx Certifying Body: ExVeritas	Suitable for use In Class I, Div. 2, Groups A, B, C, D Class II, Div. 1, Groups E, F, G Class III, Div. 1 Provides intrinsically safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G Class III, Div. 1; When installed per Control Dwg; X MPII Q15152 Ta = -40°C to +60°C (-40°F to +140°F)
ATEX	OSHA recognised NRTL: CSA CSA 15.70005381
Ⓔx II 3(1)G II 2D Ex ec[ia Ga] nC IIC T4 Gc Ex tb IIIC T65ºC Db Ta = -40ºC to +60ºC ExVeritas 19ATEX0546X ATEX Notified Body: ExVeritas	***NEC 505 & 506 (Class & Zoning)*** Class I, Zone 2, AEx nA[ia Ga] nC IIC T4 Gc (Gas & vapour) Class II, Zone 21,AEx tb IIIC T65ºC Db (Combustible Dusts)
	CEC Section 18 (Class & Zoning) Ex nA[ia Ga] nC IIC T4 Gc Ex tb IIIC T65ºC Db

Additional Certification

EMC Tested:	to EN 61000-6-2, EN 61000-6-3 FCC - Part 15

System Options

2-Pole Surface Mountable connector

With this assembly operators tasked with earthing mobile process equipment will have a dedicated earthing point to attach the easy to use screw thread connector. The 'plug and play' connector can interface with all Newson Gale 2 core systems to provide earth monitoring capability on a wide range of mobile processes and equipment where generic earthing clamps cannot be used.

The conical shape design aids in the reduction of powder deposit build up over time and aids in clean down operations.

- Made using Stainless Steel (SS grade: 304) with Viton O-Rings
- IP 66
- -40˚C to 60˚C
- Various lengths of straight or spiral Hytrel cable available.
- IECEx Ex h Certification:

  Ex h IIC T6 Ga
  Ex h IIIC T85°C Da
  Ta = -40°C to +60°C
  IECEx EXV 20.0033

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