

Ground Monitoring Device

Reihe 7485



www.stahl.de



12636E00

- > Controlled electrostatic grounding of road tankers and rail cars during loading
- > Continuous monitoring of correct grounding
- > The object recognition prevents potential operator errors (with road tankers)
- > Water jet protected stainless steel enclosure IP65
- > Easy installation and operation
- > Two potential-free change-over contacts per channel for signalling



E4

The ground monitoring device ensures the electrostatic grounding of road tankers and rail cars while loading flammable liquids and powder. The device provides a conductive connection to the ground and monitors in parallel the quality of the electrostatic grounding. This guarantees that the electrostatic charge remains at a safe level and that no explosion hazard is generated by uncontrolled energy discharge.

The following recommendation requires grounding during loading and recommends interrupting loading in case of incorrect grounding:

- > CENELEC LC/TR 50404 recommendation for avoiding ignition hazards due to electrostatic charge.
- > BGR 132 - BG rules for avoiding ignition hazards as a result of electrostatic charges






Zone	ATEX / GOST					
	0	1	2	20	21	22
Ex i interface		x	x		x	x
For use in			x		x	x

WebCode 7485A

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Selection Table



Version	Description	Order number	Weight kg
 12637E00 Ground monitoring device	Single-channel ground monitoring device, without cable	7485/111-31	7.900
 12638E00 Clamp with cable	10 m ÖLFLEX with cable gland *); Ambient temperature: - 50 ... + 60 °C	202500	2.900
 12640E00 Clamp with spiral cable	10 m ÖLFLEX with cable gland *); Ambient temperature: - 30 ... + 60 °C	202502	4.000
 12715E00 Grounding clamp with automatic cable winder	Automatic winder with 15 m of insulated cable and robust ergonomic grounding clamp, stainless steel, and fast-action plug - II 1 GD T6. Self retracting reel with 15 m Hytrel isolated cable	105544	16.000
 12643E00 Configuration set	Configuration set consisting of infrared adapter with USB port and CD-ROM with configuration software	202511	0.500

*) Special cable length possible on request (max. 20 m). Price and date of delivery differ from the standard.


Explosion Protection

Explosion protection

Europe (ATEX)
Ground monitoring device
Gas and dust

FTZÚ 10 ATEX 0068
 II 3 (2) G Ex nAC ib [ib] IIC T4
 II 2 D Ex tD A21 T62°C IP65

Clamp
Gas and dust

FTZÚ 10 ATEX 0068
 II 2 GD Ex ib ibD IIB T40°C
 in Zones 2, 21, 22

Installation

Certificates and Approvals

Certificates

ATEX, Russia (GOST R) applied for

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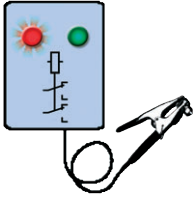
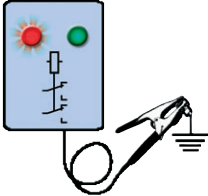
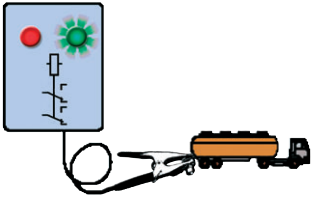
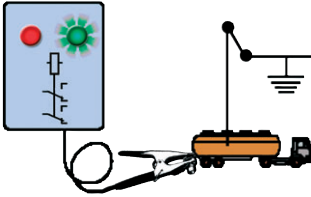
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Technical Data

Electrical data

Power supply	
Rated voltage	230 +/- 10 % V AC
Rated current	50 mA
Power consumption	10 VA
Output	
Signalling contact	two floating change-over contacts per channel
Minimum load	10 V DC / 100 mA
Maximum load DC	230 V DC / 0.25 A 40 V DC / 3 A
Maximum load AC	230 V AC / 3 A
Operating mode selection per channel	Road tanker and rail car recognition by means of DIP switch
LED display	Selection via DIP switch

Operating principle: LED display

	Grounding condition with road tanker	Reaction of the ground monitoring device
 <p>10736E00</p>	Clamp is not connected, grounding equipment not in use	Grounding incorrect <ul style="list-style-type: none"> • Red indicating lamp ON • Green indicating lamp OFF • Contacts OPEN
 <p>10737E00</p>	Clamp is directly grounded, e.g. via the loading platform	Grounding incorrect <ul style="list-style-type: none"> • Red indicating lamp ON • Green indicating lamp OFF • Contacts OPEN
 <p>10738E00</p>	Clamps connected to tank vehicle.	Grounding ok <ul style="list-style-type: none"> • Red indicating lamp OFF • Green indicating lamp ON • Contacts CLOSED
 <p>10739E00</p>	Clamps connected to tank vehicle. Tank vehicle is grounded subsequently (e.g. via the loading arm).	Grounding ok <ul style="list-style-type: none"> • Red indicating lamp OFF • Green indicating lamp ON • Contacts CLOSED

Ambient Conditions

Ambient temperature	- 20 ... + 40 °C
Storage temperature	- 20 ... + 40 °C

Mechanical data

Degree of protection	IP65
Material	
Enclosure	Stainless steel
Grounding clamp	Galvanised steel, contact point: copper
Weight	5.2 kg

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Technical Data

Assembly / Installation





Cable glands
Connection

Cable diameter range 6 ... 12 mm

Maximum diameter, single-wire

- rigid 2.5 mm²
- flexible 2.5 mm²
- flexible, cable end sleeves with plastic cover 1.5 mm²
- flexible, cable end sleeves without plastic cover 2.5 mm²

Accessories and Spare Parts

Designation	Illustration	Art. no.	Weight kg
Key-operated switch	 <p>12801E00</p>	<p>Key-operated switch Series 8040 2 switching positions Key removable in 0 + 1 For use in Zones 1, 2, 21, 22</p> <p>For manual by-pass of the signalling contact by authorised staff</p>	130902 0.450
Flashlight and permanent light	 <p>12802E00</p>	<p>Flashlight and permanent light Series 6161 230 V AC, red For use in Zones 1, 2, 21, 22</p> <p>Additional signalling of the grounding condition</p>	120655 1.370
Horn	 <p>00446E00</p>	<p>Horn Series 8491/1 with horn and connection lead 230 V AC For use in Zones 1 and 2</p> <p>Additional signalling of the grounding condition</p>	145280 1.450
Flat horn	 <p>10614E00</p>	<p>Flat horn 8491/2 with terminal compartment and cable gland 230 V AC For use in Zones 1, 2, 21, 22</p> <p>Additional signalling of the grounding condition</p>	145285 1.500

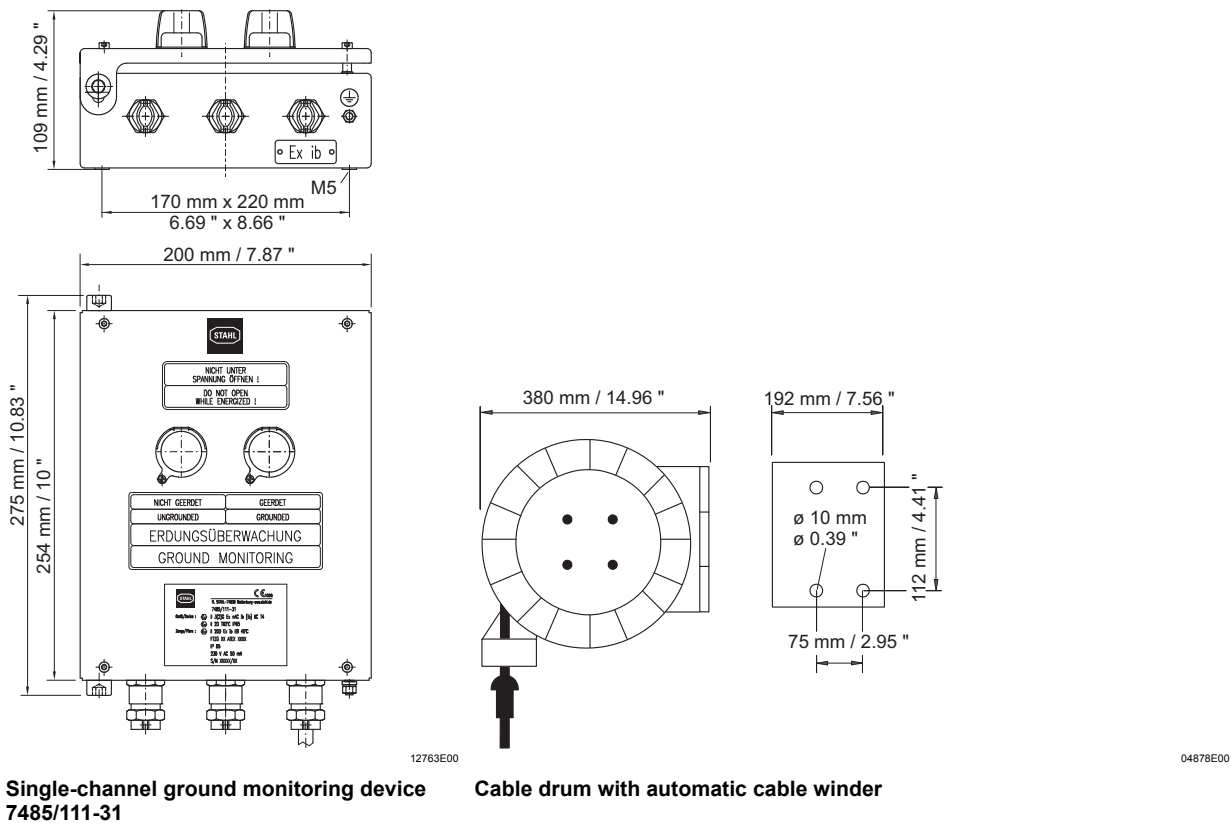
Further signalling and monitoring equipment can be found in the main catalogue.

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Dimensional Drawings (All Dimensions in mm / inches) - Subject to Alterations



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We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.

Representante oficial de:



[Argentina – Uruguay – Paraguay – Bolivia – Ecuador.]



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