

Grounding Monitoring Device Series 8485

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17198E00

- > 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 aluminium enclosure IP65
- > Two potential-free change-over contacts per channel for signalling
- > Insulated point of suspension for clamps
- > Ambient temperature - 55 ... + 60 °C



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 charges.
- > TRGS 727 rules for avoiding ignition hazards as a result of electrostatic charges










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

WebCode 8485A

Grounding Monitoring Device

Series 8485

Selection Table

Version	Description	Order number	Weight kg
 <p>12635E00 Single-channel grounding system</p>	<p>Monitored electrostatic grounding of tank containers and rail cars during loading Ambient temperature: - 55 ... + 60 °C</p>	8485/111-42	12.100
 <p>12633E00 Dual-channel grounding system</p>	<p>Monitored electrostatic grounding of tank containers and rail cars during loading Ambient temperature: - 55 ... + 60 °C</p>	8485/112-42	13.100
 <p>17200E00 Clamp with cable</p>	<p>10 m ÖLFLEX with cable gland *) Clamp is made of stainless steel; Ambient temperature: -50 ... +60 °C</p>	240197	2.900
 <p>17130E00 Clamp with cable</p>	<p>10 m SIHF-J with cable gland *); Clamp is made of stainless steel; Ambient temperature: - 55 ... + 60 °C</p>	238969	2.900
 <p>17199E00 Clamp with spiral cable</p>	<p>10 m ÖLFLEX with cable gland *); Clamp is made of stainless steel; Ambient temperature : - 30 ... + 60 °C</p>	238970	4.000
 <p>17132E00 Grounding clamp</p>	<p>Robust ergonomic grounding clamp, stainless steel, and fast-action plug. Ambient temperature : - 40 ... + 60 °C</p>	238971	2.000
 <p>17637E00 Grounding clamp with automatic cable winder</p>	<p>Automatic winder with 9 m of oil and petrol resistant cable with robust ergonomic grounding clamp of stainless steel, and fast-action plug, Plastic enclosure</p>	247660	7.300
 <p>17638E00 Grounding clamp</p>	<p>Robust ergonomic grounding clamp with 150 mm of cable and fast-action plug</p>	247675	0.600
 <p>12643E00 Configuration set</p>	<p>Configuration set consisting of infrared adapter with USB port and CD-ROM with configuration software</p>	202511	0.500

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

Grounding Monitoring Device

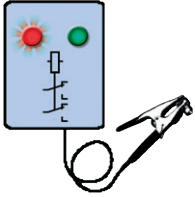
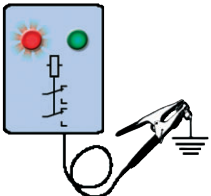
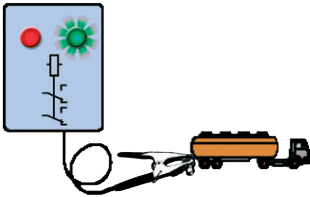
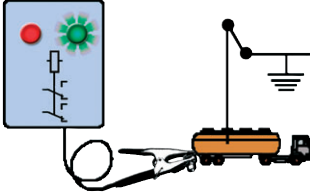
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Explosion Protection

Global (IECEX)	
Gas and dust	IECEX FTZU 15.0031X Ex d ib [ib] IIB T4 Gb Ex ib [ib] tb IIIC T130°C Db
Europe (ATEX)	
Gas and dust	FTZÚ 09 ATEX 0059X ⊕ II 2 G Ex d [ib] IIB T4 Gb ⊕ II 2 D Ex tb IIIC T130°C Db
Certifications and certificates	
Certificates	IECEX, ATEX, Kazakhstan (TR), Russia (TR), Belarus (TR)
Further parameters	
Installation	in Zones 1, 2, 21, 22
Safety data	
For signalling contact	
Max. connectable voltage U_i	50 V DC
Max. permissible current I_i	200 mA

Technical Data

Electrical data			
Power supply			
Rated voltage	20 V DC - 230 V AC		
Nominal current	50 mA		
Frequency range	40 ... 60 Hz		
Power consumption	10 VA		
Output			
Signalling contact	Ex i or Ex e - two potential-free 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 Selection via DIP switch		
LED indication road tankers			
	Operating principle: LED indication	Grounding condition with road tanker	Reaction of the grounding monitoring device
		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
		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
		Clamps connected to tank vehicle.	Grounding ok <ul style="list-style-type: none">• Red indicating lamp OFF• Green indicating lamp ON• Contacts CLOSED
		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

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Technical Data

Mechanical data

Enclosure version	Flameproof enclosure (Ex d)
Degree of protection	IP65
Material	
Enclosure	Aluminium
Grounding clamp	Stainless steel

Ambient conditions

Ambient temperature	-55 ... +60 °C
Storage temperature	-55 ... +60 °C

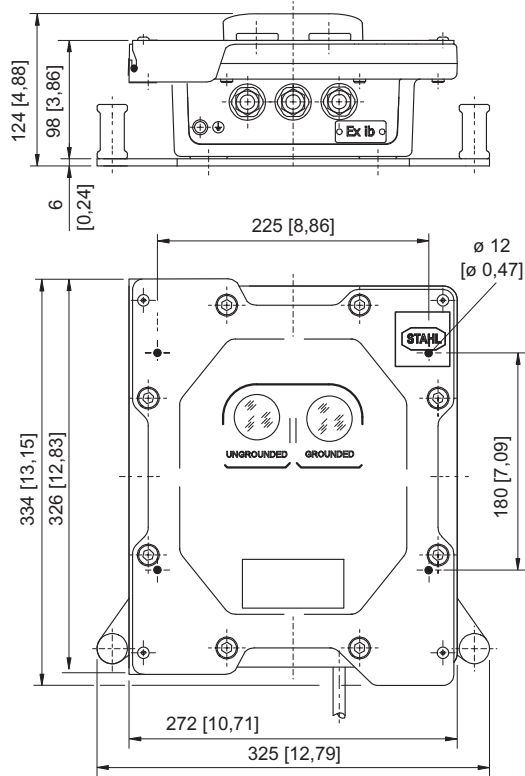
Mounting / Installation

Cable glands	Cable diameter range 6 ... 12 mm	
Connection	Maximum diameter, single-wire	
	- rigid	2.5 mm ²
	- flexible	2.5 mm ²
	- flexible, cable end sleeves with plastic cover	1.5 mm ²
	- flexible, cable end sleeves without plastic cover	2.5 mm ²

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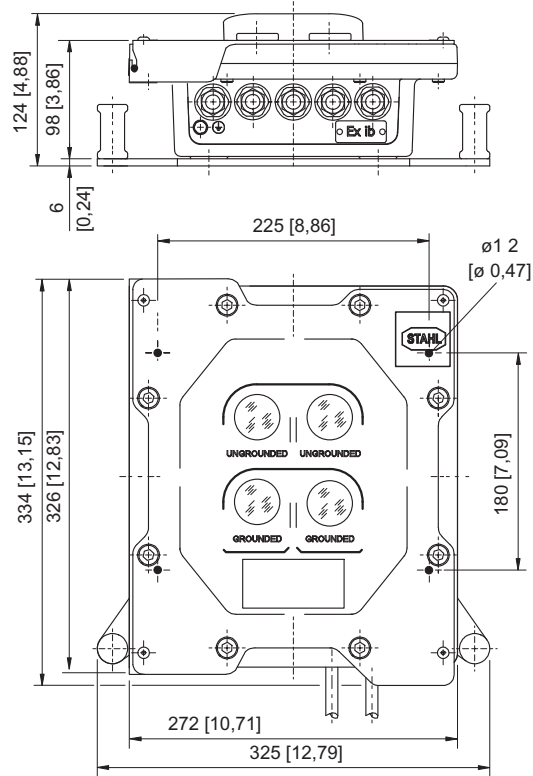


Dimensional Drawings (All Dimensions in mm [inches]) - Subject to Alterations



Single-channel grounding monitoring device 8485/111

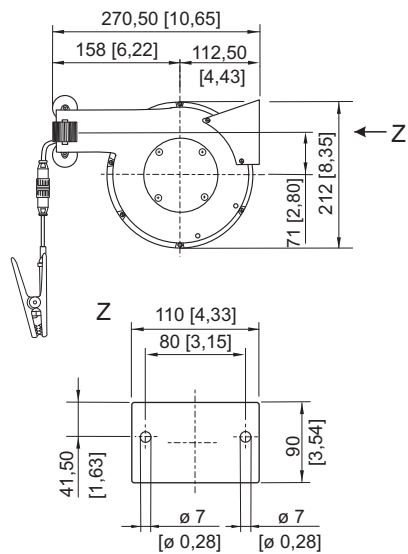
12756E00



Dual-channel grounding monitoring device 8485/112

12756E00

E4



Cable drum with automatic cable winder (Art. no. 247660)

17658E00

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.