



14834E00

- > Monitored electrostatic grounding of tank containers, barrels, road tankers, rail cars, IBCs and helicopters during loading
- > Continuous monitoring of correct grounding
- > Robust design
- > Weather-protected plastic enclosure (IP65) or stainless steel enclosure (IP65)
- > Potential-free contact for signalling to the process control system or external control devices
- > Insulated point of suspension
- > For use with up to SIL 2 (IEC 61508)



**WebCode 8146H**

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

**Technical Data**



Explosion protection	<b>Grounding monitoring devices</b>	
<b>Version</b>	<b>8125/5071</b>	<b>8146/5075</b>
Global (IECEX) Gas and dust	IECEX PTB 06.0079 Ex d e [ia] IIC T4 Gb Ex tb IIIC T80°C Db IP65	IECEX PTB 06.0090 Ex d e [ia] IIC T4 Gb Ex tb IIIC T80°C Db IP65
Europe (ATEX) Gas and dust	PTB 01 ATEX 1001 ⊕ II 2 G Ex d e [ia] IIC T4 Gb ⊕ II 2 D Ex tb IIIC T80°C Db IP65	PTB 01 ATEX 1024 ⊕ II 2 G Ex d e [ia] IIC T4 Gb ⊕ II 2 D Ex tb IIIC T80°C Db IP65
Certifications and certificates	IECEX, ATEX, Brazil (INMETRO), Kazakhstan (TR), Russia (TR), Belarus (TR)	
Certificates	DNV	
Ship approval		
Further parameters	in Zones 1, 2, 21, 22	
Installation		
Power supply		
Rated voltage	120 / 230 V	
Nominal voltage range	96 ... 253 V AC	
Power consumption	3 VA	
Output	potential-free NO contact (Ex e)	
Signalling contact	250 V / 4 A	
Maximum load AC	250 V / 2 A	
Maximum load DC	40 V / 3 A	
Minimum load	12 V / 100 µA	
Ambient conditions		
Ambient temperature	-20 ... +40 °C	
Storage temperature	-40 ... +80 °C	
Degree of protection	IP65	
Weight	<b>8125/5071</b> 6.5 kg	<b>8146/5075</b> 5.8 kg

# Grounding Systems / Grounding Monitoring Device

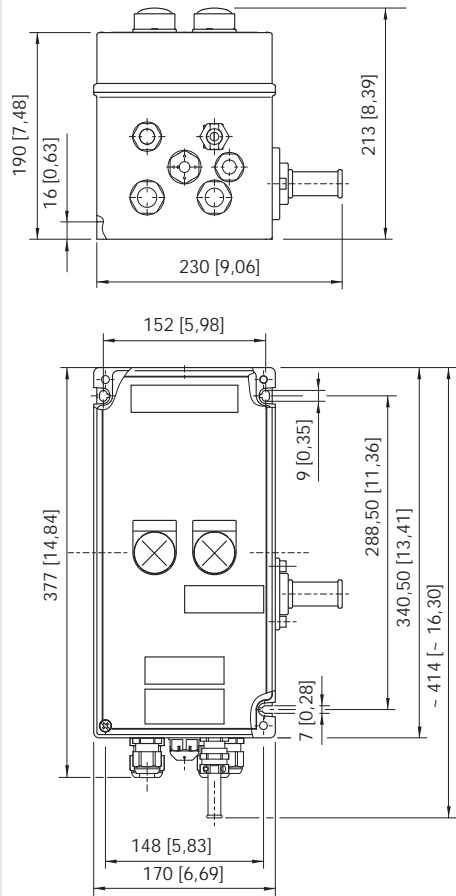
Series 8146/5075 and 8125/5071



E4

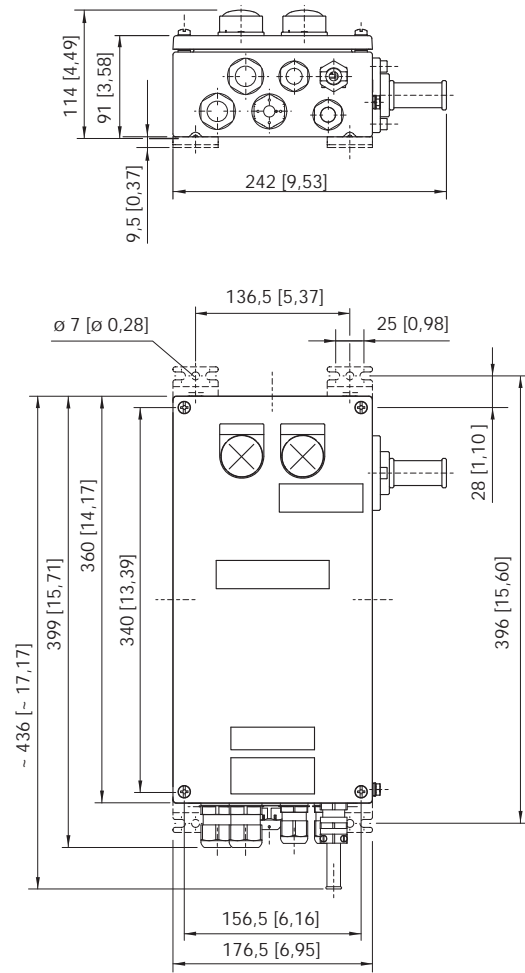
Selection Table				
Version	Description	Order number	Art. no.	PS
 <p>14728E00 Ground monitoring device 8125/5071</p>	<p>Grounding monitoring device 8125/5071 without cable. The device ensures that drums and tank containers are correctly electrostatically grounded and continuously monitors the connection. For use up to SIL 2.</p>	8125/5071	209056 ◀	54
 <p>12753E00 Ground monitoring device 8146/5075</p>	<p>Grounding monitoring device 8146/5075 without cable. The device ensures that drums and tank containers are correctly electrostatically grounded and continuously monitors the connection.</p>	8146/5075	136216 ◀	54
 <p>12056E00 Grounding clamp with cable</p>	<p>10 m oil and petrol resistant cable with robust ergonomic grounding clamp of stainless steel, and fast-action plug</p>		247673	54
 <p>12055E00 Grounding clamp with spiral cable</p>	<p>5 m oil and petrol resistant spiral cable with robust ergonomic grounding clamp of stainless steel, and fast-action plug</p>		247672	54
	<p>10 m oil and petrol resistant spiral cable with robust ergonomic grounding clamp of stainless steel, and fast-action plug</p>		247674	54
 <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	54
 <p>17636E00 Grounding clamp with automatic cable winder</p>	<p>Automatic winder with 20 m of oil and petrol resistant cable with robust ergonomic grounding clamp of stainless steel, and fast-action plug, Aluminium enclosure, protected cable duct with stopper</p>		247671	54
 <p>17638E00 Grounding clamp</p>	<p>Robust ergonomic grounding clamp with 150 mm of cable and fast-action plug</p>		247675	54
<p>Note *) Special cable length possible on request. Price and date of delivery differ from the standard.</p>				

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



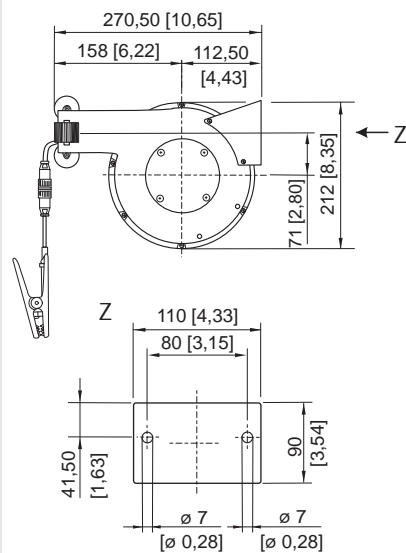
08029E00

Grounding monitoring device 8146/5075



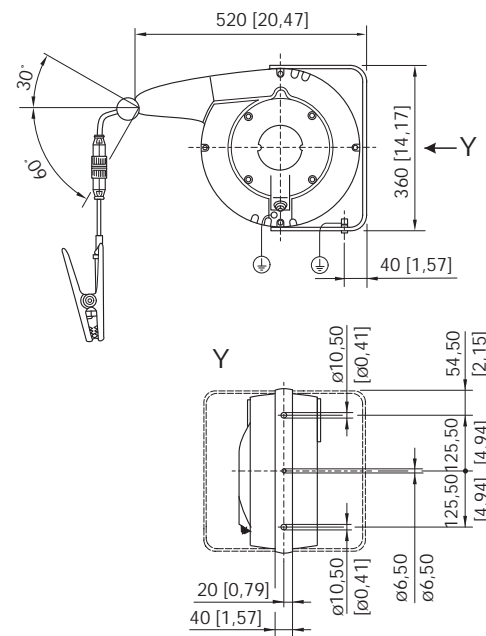
14867E00

Grounding monitoring device 8125/5071



17658E00

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



17667E00

Cable drum with automatic cable winder  
(Art. no. 247671)



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

**WebCode 8485A**

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

Technical Data	
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
Power supply	
Rated voltage	20 V DC ... 230 V AC, 50 Hz
Nominal current	50 mA
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

**Selection Table**

Version	Description	Order number	Art. no.	PS	Weight kg
 12635E00 Single-channel grounding system	Monitored electrostatic grounding of tank containers and rail cars during loading Ambient temperature: - 55 ... + 60 °C	<b>8485 / 111 - 42</b>	<b>238967</b> ◀	54	12.100
 12633E00 Dual-channel grounding system	Monitored electrostatic grounding of tank containers and rail cars during loading Ambient temperature: - 55 ... + 60 °C	<b>8485 / 112 - 42</b>	<b>238968</b>	54	13.100
 17200E00 Clamp with cable	10 m ÖLFLEX with cable gland *) Clamp is made of stainless steel Ambient temperature: -50 ... +60 °C		<b>240197</b>	54	2.900
 17130E00 Clamp with cable	10 m SIHF-J with cable gland *); Clamp is made of stainless steel; Ambient temperature: - 55 ... + 60 °C		<b>238969</b>	54	2.900
 17199E00 Clamp with spiral cable	10 m ÖLFLEX with cable gland *); Clamp is made of stainless steel; Ambient temperature : - 30 ... + 60 °C		<b>238970</b>	54	4.000
 12643E00 Configuration set	Configuration set consisting of infrared adapter with USB port and CD-ROM with configuration software		<b>202511</b> ◀	54	0.500
 12715E00 Grounding clamp with automatic cable winder	Automatic retractor with 15 m of insulated cable, 3 m connection cable, robust ergonomic grounding clamp made of stainless steel, and fast-action plug		<b>105544</b>	54	16.000
 17132E00 Grounding clamp	Robust ergonomic grounding clamp, stainless steel, and fast-action plug. Ambient temperature : - 40 ... + 60 °C		<b>238971</b>	54	2.000

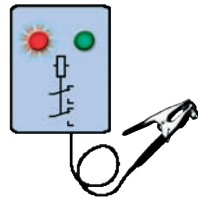
\*) Special cable length possible on request (max. 20 m). Price and date of delivery differ from the standard.

## Technical Data

LED indication road tankers

### Operating principle:

#### LED indication



10736E00

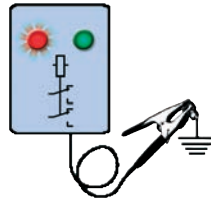
#### Grounding condition with road tanker

Clamp is not connected, grounding equipment not in use

#### Reaction of the grounding monitoring device

Grounding incorrect

- Red indicating lamp ON
- Green indicating lamp OFF
- Contacts OPEN

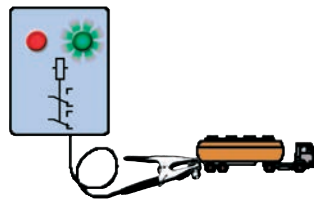


10737E00

Clamp is directly grounded, e.g. via the loading platform

Grounding incorrect

- Red indicating lamp ON
- Green indicating lamp OFF
- Contacts OPEN

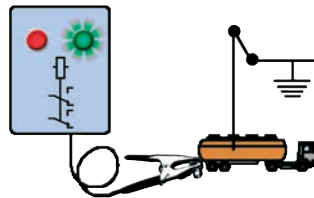


10738E00

Clamps connected to tank vehicle.

Grounding ok

- Red indicating lamp OFF
- Green indicating lamp ON
- Contacts CLOSED



10739E00

Clamps connected to tank vehicle. Tank vehicle is grounded subsequently (e.g. via the loading arm).

Grounding ok

- Red indicating lamp OFF
- Green indicating lamp ON
- Contacts CLOSED

Enclosure version  
Degree of protection  
Material

Flameproof enclosure (Ex d)  
IP65

Enclosure  
Grounding clamp  
Ambient conditions  
Ambient temperature  
Storage temperature  
Mounting / Installation  
Cable glands  
Connection

Aluminium  
Stainless steel

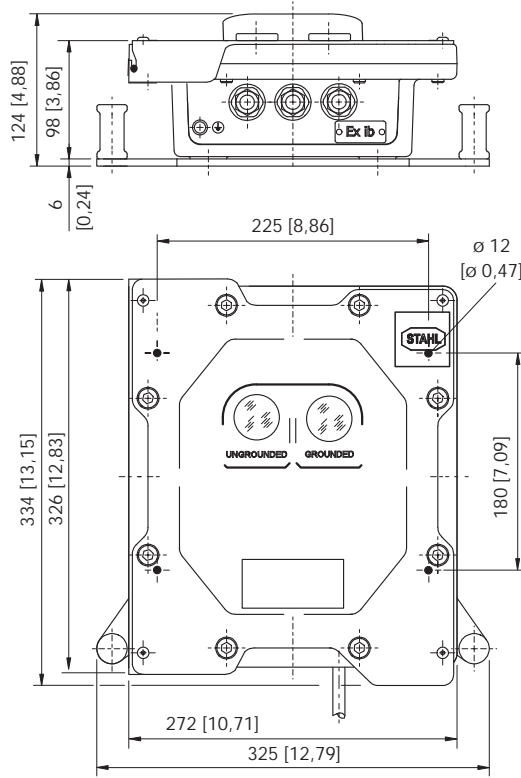
-55 ... +60 °C  
-55 ... +60 °C

Cable diameter range 6 ... 12 mm  
Maximum diameter, single-wire

- rigid 2.5 mm<sup>2</sup>
- flexible 2.5 mm<sup>2</sup>
- flexible, cable end sleeves with plastic cover 1.5 mm<sup>2</sup>
- flexible, cable end sleeves without plastic cover 2.5 mm<sup>2</sup>

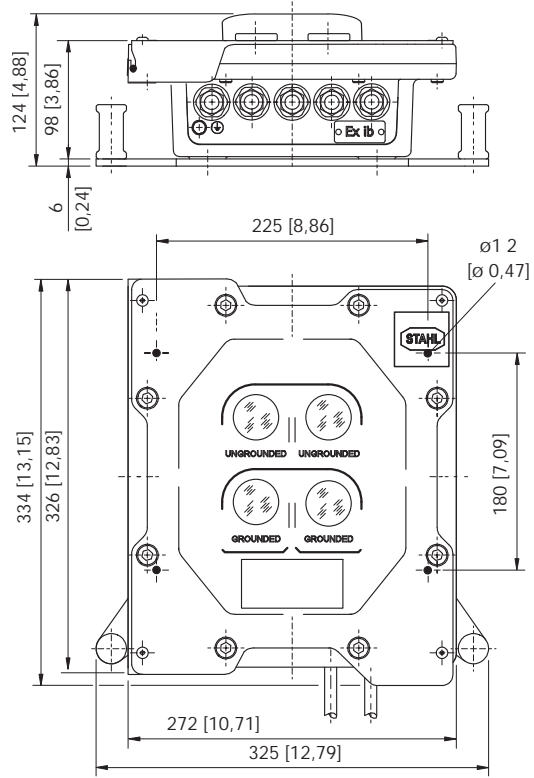
Dimensional Drawings (All Dimensions in mm [inches]) - Subject to Alterations

E4



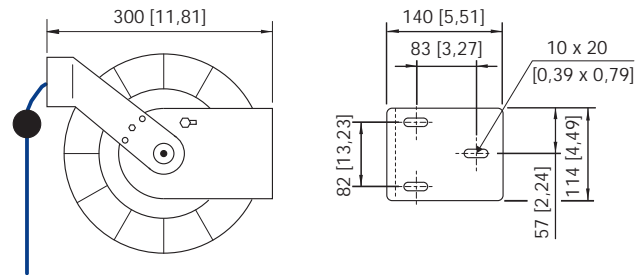
Single-channel grounding monitoring device 8485/111

12758E00



Dual-channel grounding monitoring device 8485/112

12759E00



Cable drum with automatic cable winder

04878E00