

Grounding Systems / Grounding Monitoring Device Series UZCL

- Monitored electrostatic grounding of road tankers and tank wagons during the loading and unloading of flammable liquids
- Safe verification of the connected object-distinction between road tanker and other objects like loading platform
- For use in Zone 1 and Zone 2
- Robust design
- Easy installation and operation
- Two potential free contacts (Ex e) for signalisation to the control system and control of alarm devices



03655E00

Grounding monitoring devices ensure that road tanker and tank wagons are electrostatically grounded correctly during the loading or unloading of flammable liquids. The device provides a conductive connection to the ground and monitors in parallel the quality of the electrostatic grounding. The electrostatic charge of the tank is kept on a safe level. An occasional discharge in conjunction with a spark is prevented and therefore the explosion protection ensured.

The grounding monitoring device UZCL 3.d is able to distinguish between the correct grounding of road tankers and the incorrect grounding of other items, e.g. tank platform. If the pliers are connected to a road tanker the green light switched on and the relay will be energized. The contacts of the relay can be used to control e.g. a valve or to trigger an alarm.


The following recommendations demand the grounding of tank vehicles during the loading or unloading procedure and endorse that interlocks should be provided to prevent loading when the grounding cable is not connected.

- CENELEC CLC/TR 50404 Code of practice for the avoidance of hazards due to static electricity
- National Fire Protection Association NFPA77

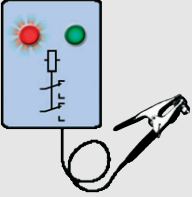
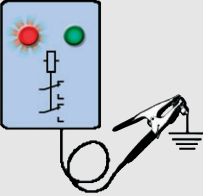
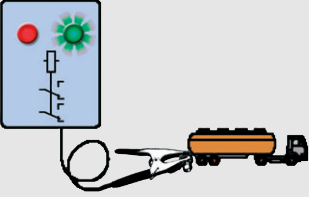
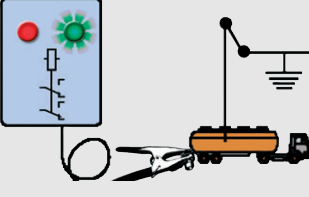
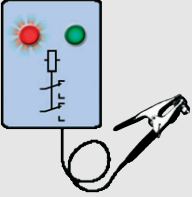
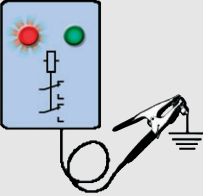
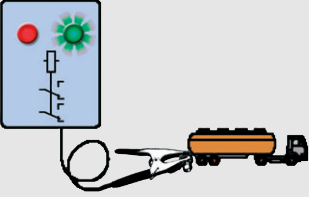
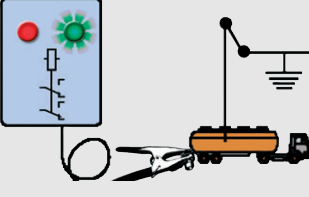
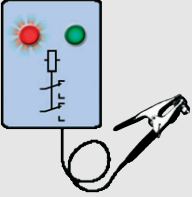
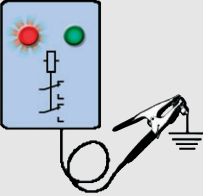
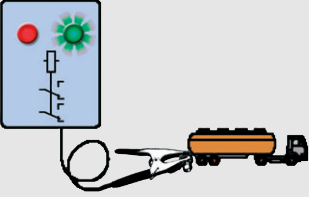
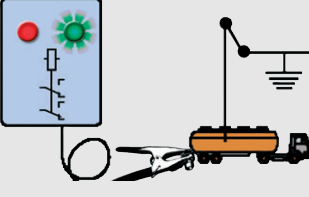
STAHL

Zones 1 & 2

Recommended practice of static electricity 2000 edition

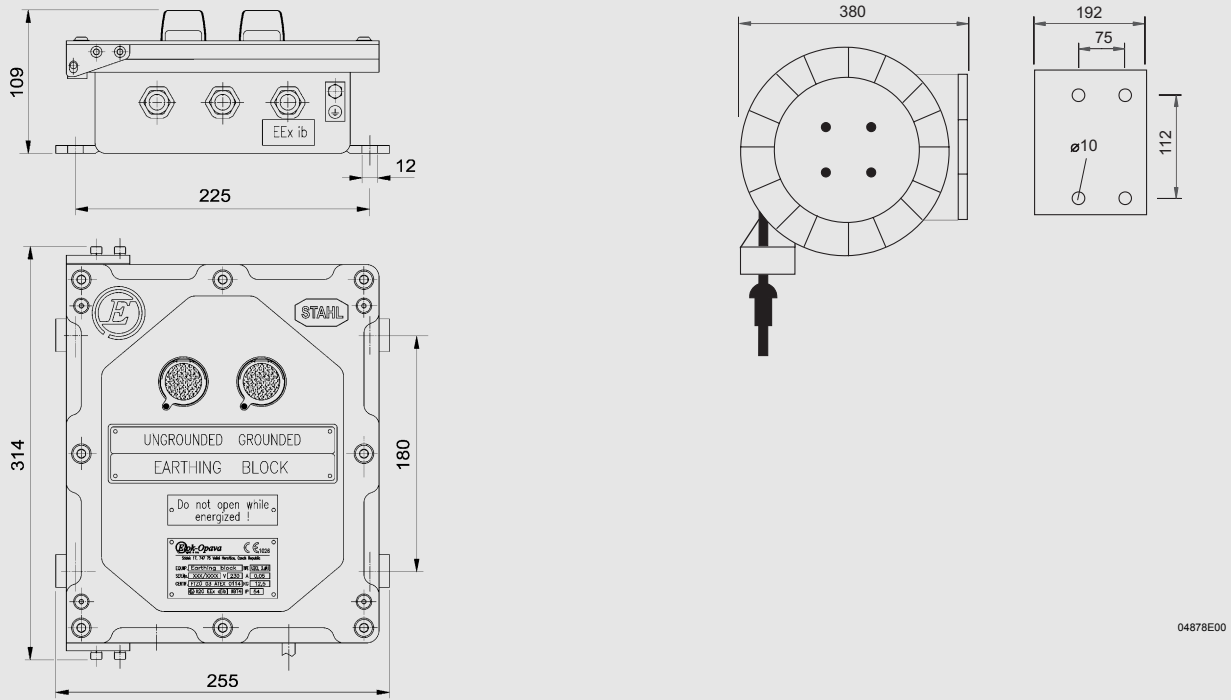
Selection Table						
Version	Description	Ordering Code	Weight kg			
Grounding Monitoring Device Series UZCL	Standard: The grounding monitoring device is available with a cable and clamp	4647630	12,500			
 04877E00 Grounding clamp with self retracting reel	Robust grounding clamp, stainless steel - II 2 GD T6	Self retracting reel with 15 m Hy-trel isolated cable	3116400	16,000		
Add. to Ordering Code (Please mark the required version UZCL t.x.y.z)						
Type t	Version x	Application area z	Degree of protection	Temperature range	Cable c selection see below	
4	d	road tanker; tank wagon	IP 65	- 20 °C ... + 40 °C	0	<input type="checkbox"/>
					1	<input type="checkbox"/>
					3	<input type="checkbox"/>
3	d	road tanker; tank wagon	IP 54	- 50 °C ... + 60 °C	0	<input type="checkbox"/>
					2	<input type="checkbox"/>
				- 40 °C ... + 60 °C	3	<input type="checkbox"/>
				- 20 °C ... + 40 °C	1	<input type="checkbox"/>
Selection cable c				Version of language y		
Version		Temperature range		A = English <input type="checkbox"/>		
0 = without cable or with self retracting reel ordering no. 311 640 0				C = Czech <input type="checkbox"/>		
1 = Grounding clamp with 10 m cable		- 20 °C ... + 40 °C		P = Polish <input type="checkbox"/>		
2 = Grounding clamp with 10 m cable		- 50 °C ... + 60 °C		S = Slovak <input type="checkbox"/>		
3 = Grounding clamp with 10 m spiral cable		- 40 °C ... + 60 °C		D = German <input type="checkbox"/>		
				R = Russian <input type="checkbox"/>		
				Application area z		
				1 = road tanker <input type="checkbox"/>		
				2 = tank wagon <input type="checkbox"/>		

Technical Data	
Certificates	FTZU 03 ATEX 0213 X (UZCL 3.d; IP 54) FTZU 06 ATEX 0015 (UZCL 4.d; IP 65)
Other certificates	GOST R (Russia)
Explosion protection	⊕ II 2 G EEx d [ib] IIB T4
Installation	in Zone 1, Zone 2
Ambient temperature	- 50 °C ... + 60 °C (IP 65: - 20 °C ... 40 °C)
Storage temperature	- 50 °C ... + 60 °C
Degree of protection	IP 54 (UZCL 3.d) IP 65 (UZCL 4.d)
Rated voltage	230 V
Frequency	50 Hz

Technical Data											
Power consumption	10 VA										
LED indication	<p>Operating principle:</p> <table border="1"> <thead> <tr> <th>State of grounding process</th> <th>Reaction of grounding device</th> </tr> </thead> <tbody> <tr> <td>  <p>10736E00</p> </td> <td> <p>Clamp is not connected, grounding equipment not in use</p> <p>Grounding incorrect</p> <ul style="list-style-type: none"> • red light ON • green light OFF • contacts OPEN </td> </tr> <tr> <td>  <p>10737E00</p> </td> <td> <p>Clamp connected directly to the ground, e.g. via loading platform</p> <p>Grounding incorrect</p> <ul style="list-style-type: none"> • red light ON • green light OFF • contacts OPEN </td> </tr> <tr> <td>  <p>10738E00</p> </td> <td> <p>Clamp connected to the road tanker</p> <p>Grounding correct</p> <ul style="list-style-type: none"> • red light OFF • green light ON • contacts CLOSED </td> </tr> <tr> <td>  <p>10739E00</p> </td> <td> <p>Clamp connected to the road tanker. The road tanker is grounded consecutively (e.g. with the loading arm)</p> <p>Grounding correct</p> <ul style="list-style-type: none"> • red light OFF • green light ON • contacts CLOSED </td> </tr> </tbody> </table>	State of grounding process	Reaction of grounding device	 <p>10736E00</p>	<p>Clamp is not connected, grounding equipment not in use</p> <p>Grounding incorrect</p> <ul style="list-style-type: none"> • red light ON • green light OFF • contacts OPEN 	 <p>10737E00</p>	<p>Clamp connected directly to the ground, e.g. via loading platform</p> <p>Grounding incorrect</p> <ul style="list-style-type: none"> • red light ON • green light OFF • contacts OPEN 	 <p>10738E00</p>	<p>Clamp connected to the road tanker</p> <p>Grounding correct</p> <ul style="list-style-type: none"> • red light OFF • green light ON • contacts CLOSED 	 <p>10739E00</p>	<p>Clamp connected to the road tanker. The road tanker is grounded consecutively (e.g. with the loading arm)</p> <p>Grounding correct</p> <ul style="list-style-type: none"> • red light OFF • green light ON • contacts CLOSED
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Control contacts											
Switching capacity	230 V / 3 A										
Material											
Housing	steel ST37 acc. to DIN										
Clamp	pressed galvanised steel, contact point in copper										
Cable length	10 m (other length or cable on request), see selection table										
Cable glands	HØ7RN-F 3G x 1,5 mm cable diameter 8,5 mm - 16 mm										



Dimension drawings (all dimensions in mm) – subject to alterations



Grounding monitoring device Series UZCL

Cable reel with self retracting reel

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