

GRDC-4200 Capacitive electronic earthing system 'Ex eb / tb'



The GRDC-4200 is a capacitive-type electronic earthing system that ensures earthing of tankers, rail tankers and IBCs (intermediate bulk containers) when transporting flammable liquids such as fuels, chemicals, powders and granulates.

The system analyses the overall capacitance of the vehicle, to provide consent for load activation, only in the case of actual connection. Thanks to the electrical capacitance reading of the connected device, the GRDC-4200 can distinguish whether it has been connected to the tank or to another metal object (pipe, ladder, etc.), thereby increasing the level of reliability and safety and preventing possible misuse by the operator. During the whole loading and unloading phase, the device checks that the earthing system remains equipotential via the connection of earthing pliers.

The GRDC-4200 consists of a Ex eb/tb casing containing ATEX/IECEx-certified earthing control logic, Ex eb/tb control and signalling devices such as selector switches and LED indicators, and one or more earthing pliers for connecting to tankers or other metal parts.

Manufacturer applies a tamper-evident holographic security label to its products, complete with a unique authentication numeric code, to combat the illegal sale of imitations and counterfeits, as well as guarantee the authenticity of its products. Failure to observe international standards creates serious risks for the environment and, above all, for the personnel who work with the systems on a daily basis.

Sectors of application:



CERTIFICATE DATA

Classification:	Group II	Category 2GD	
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)	
Marking:	CE 0722 Ex II 2GD - Ex db eb mb [ia Ga] IIC T.. Gb - Ex tb [ia Da] IIIC T..°C Db		
Certificate:	ATEX CML 20 ATEX 3235X		
	IEC Ex IECEx CML 20.0144X	For all IEC Ex, UKEX certificate data, contact comm@antideflagrante.com	
	UKEX AVAILABLE		
Standards:	CENELEC EN 60079-0: 2018, EN 60079-1: 2014, EN 60079-7: 2015+A1:2018, EN 60079-11: 2012, EN 60079-18: 2015+A1:2017, EN 60079-31: 2014, EN 60529: 1991 and European Directive 2014/34/EU. IEC 60079-0: 2017, IEC 60079-1: 2014-06, IEC 60079-7: 2015, IEC 60079-11: 2011, IEC 60079-18: 2017, IEC 60079-31: 2013, IEC 60529: 2001. RoHS Directive 2002/95/EC.		
Temperature class:	85°C (T6)	85°C (T5)	85°C (T4)
Ambient temperature:	-40°C +40°C	-40°C +50°C	-40°C +60°C
Degree of protection:	IP66		

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MECHANICAL FEATURES

GRDC-4200..

- Body and lid:** Low copper content aluminium alloy
- Resistant to knocks:** IK10
- Gasket:** Acid, hydrocarbon and high temperature resistant silicone positioned between the body and the lid
- Certificate label:** Adhesive
- Screws, bolts and nuts:** Stainless steel, captive type
- Earthing screw:** Stainless steel. Inside and outside the body, complete with anti-rotation brackets
- Mounting:** Cast aluminium feet for M6 screws
- Coating:** Polyester RAL 7035 (Light grey)

Resistenza alla corrosione:

The STANDARD of the aluminium alloy used by manufacturer has passed the tests required by the Standard EN60068-2-30 (hot-humid cycles) and EN60068-2-11 (salt fog test)

GRDC-4200..P..

- Body and lid:** Black polyester resin with antistatic properties
- Resistant to knocks:** IK10
- Gasket:** Acid, hydrocarbon and high temperature resistant silicone positioned between the body and the lid
- Mounting:** Polyester feet for M6 screws
- Certificate label:** Adhesive
- Screws, bolts and nuts:** Stainless steel, captive type

- Pliers:** Bipolar, casting with aluminium with handles in neoprene, jaws with steel tips, auto-releasing. 16 mm opening.
- Spiral cable:** Yellow with trim in rubber resistant to oil and chemical substances. Suitable for extremely high mechanical stresses. Length 8 m (extended).
- Bracket for pliers:** In stainless steel.
- Selector switch:** In aluminium with black anodic oxidation.
- Indicator light:** Green polycarbonate.



ACCESSORIES UPON REQUEST / SPECIAL REQUESTS

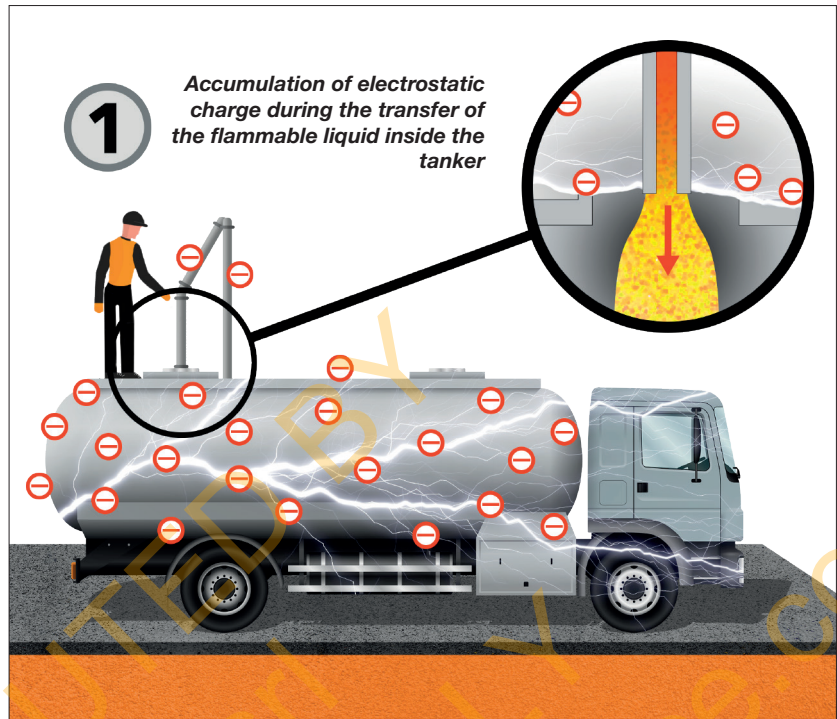
- Cable gland
- Body and lid in stainless steel AISI 316L



Operation of the capacitive earthing system in Ex environments

The GRDC earthing system is designed to prevent the accumulation of electrostatic charges generated during loading and unloading from transport vehicles containing flammable and explosive liquid (e.g. fuels) or solid (e.g. coal, flour) products.

An earthing connection between the tanker truck and the earthing network of the system is not enough to prevent the generation of sparks. A series of safety measures must be taken to connect the two systems safely, ensuring the safety of people and the protection of property. These systems are commonly referred to as "earthing systems" and operate on the principle of equipotential bonding of metallic conducting and semiconducting objects present during loading or unloading of potentially explosive products.



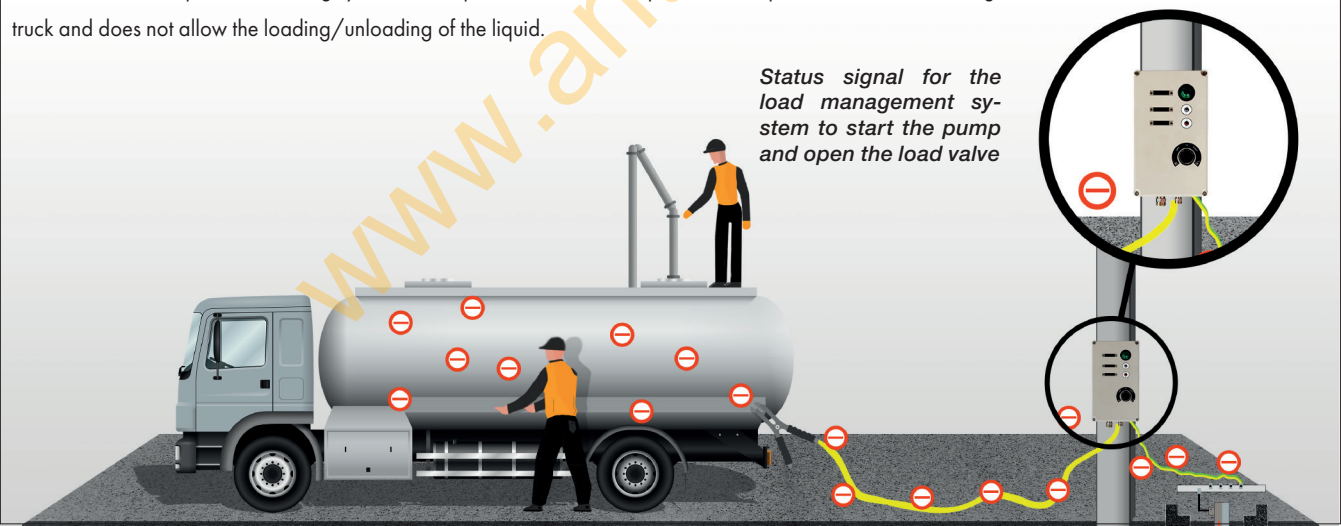
This system, known as a capacitive earthing system, differs from the resistive type system (Product code GRDE) in terms of its ability to distinguish a tanker from a simple metal component (e.g. a tank cage, a container). This is necessary in order to ensure maximum safety, also in the event of a possible error or misuse by the operator who, by connecting the pliers to a simple metal part, can obtain consent from the resistive-type earthing system causing them to proceed with unsafe loading/unloading operations.

In fact, a resistive earthing system only checks that the pliers are connected to a component with good conductivity (low resistance) and that the resistance between ground and the component connected to the earthing pliers is below a certain limit.

Therefore, with a capacitive earthing system, if an operator connects the pliers to a simple metal element it recognises that it is not connected to a tanker truck and does not allow the loading/unloading of the liquid.



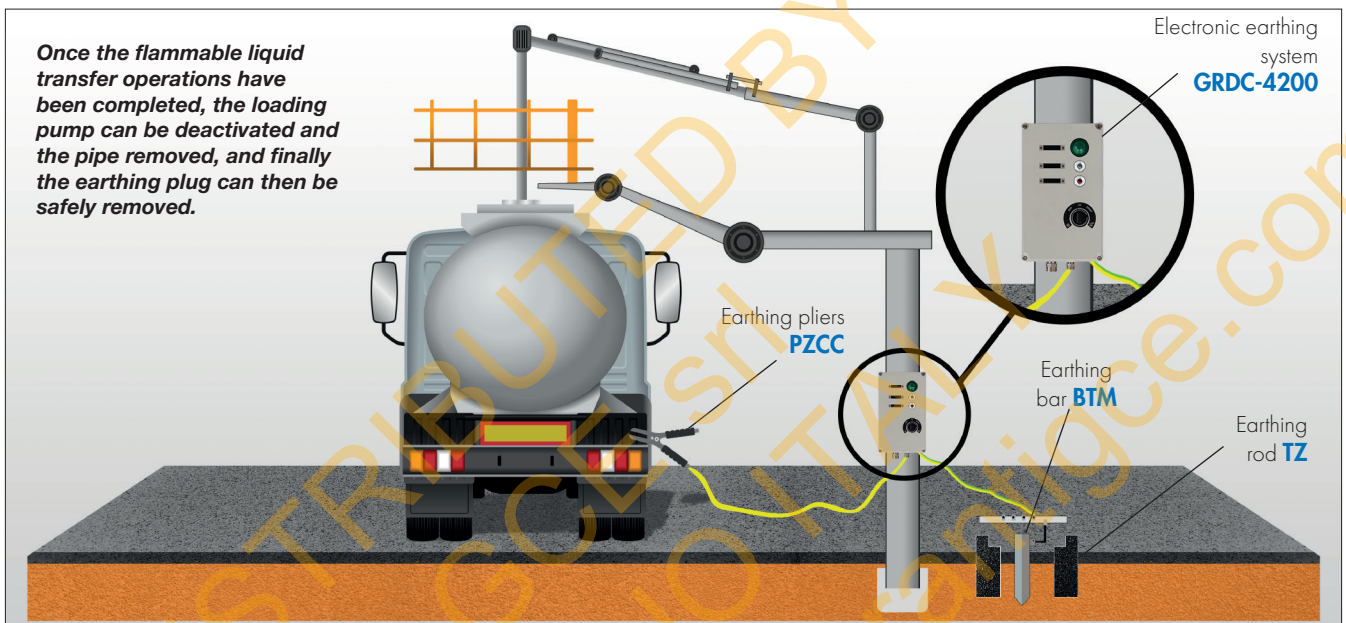
Status signal for the load management system to start the pump and open the load valve





GRDC-4200 Capacitive electronic earthing system 'Ex eb / tb'

This system consists of a earthing control logic called PCBLCZ-4200 which, protected by the 'Ex mb' protection mode, not only monitors the parameters of the earth connection, but also has an intersectional safety barrier 'Ex ia' which ensures engagement of the pliers for safe earth connection. Furthermore, thanks to this logic, in addition to enabling the connection to ground in order to remove electrostatic charges from the tanker truck, tanker, etc., the GRDC system can also be used to enable the switching on of the loading/unloading pump through the use of a double contact relay. This way, in the unfortunate event that the ground connection fails, the flammable liquid loading/unloading operation is immediately stopped in complete safety until the connection to ground is restored. The GRDC system can be supplied with one or two earthing pliers for simultaneous connection of several tankers.



Operating guide

STEP 1

Switch on - Automatic check of the earth resistance connection

Set the selector switch from OFF to ON

- Positive result - yellow indicator light stops flashing after 5 seconds
- Negative result - continuous yellow indicator light flashes waiting for the earth connection to improve

STEP 2

Earthing pliers connection - Capacitive load control

After having connected the pliers to the tank:

- there is a capacitance to ground greater than the pre-set value, the white indicator light turns on giving the consent to STEP 3
- correct capacitive load to ground is not present (connect the pliers to a different metal object), white indicator light off, access to STEP 3 not permitted.

STEP 3

Electrostatic current discharge - Enabling or stopping the operation

- Once the correct earthing is verified, by turning and holding the switch in the START position for 2-3 seconds, the green indicator light turns on and the internal logic checks that the impedance value does not exceed 10Ω for the duration of the operation, thereby enabling or stopping the operation via a relay.

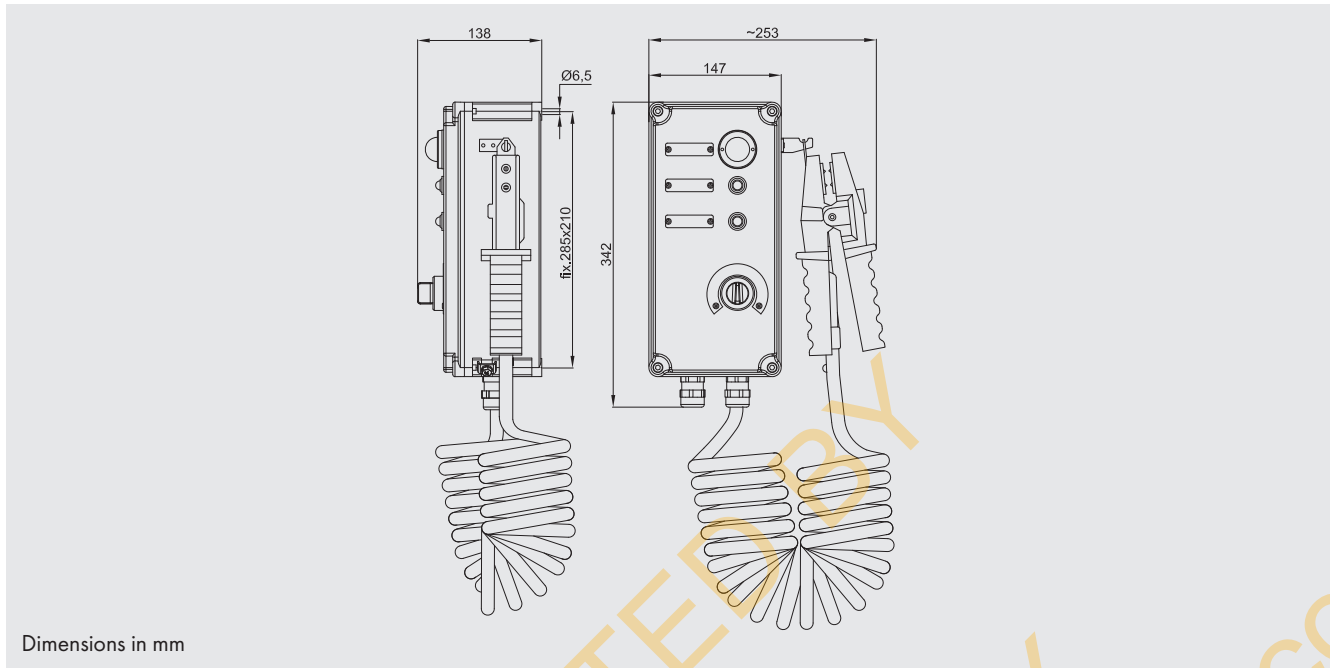
By-pass function

The GRDC earthing system has an integrated by-pass system, which in the event of critical conditions, e.g. rain, snow and excessive humidity, is still able to allow vehicle loading/unloading. In these cases, recognition of a tanker truck, for example, may not be reliable since the capacitive values can no longer be measured accurately. The by-pass consists of holding the selector switch on START for at least 10 seconds, thereby excluding the capacitive reading. If the pliers have been properly connected to a metal component, the green indicator light will come on giving consent for the operation.





DIMENSIONAL DRAWING

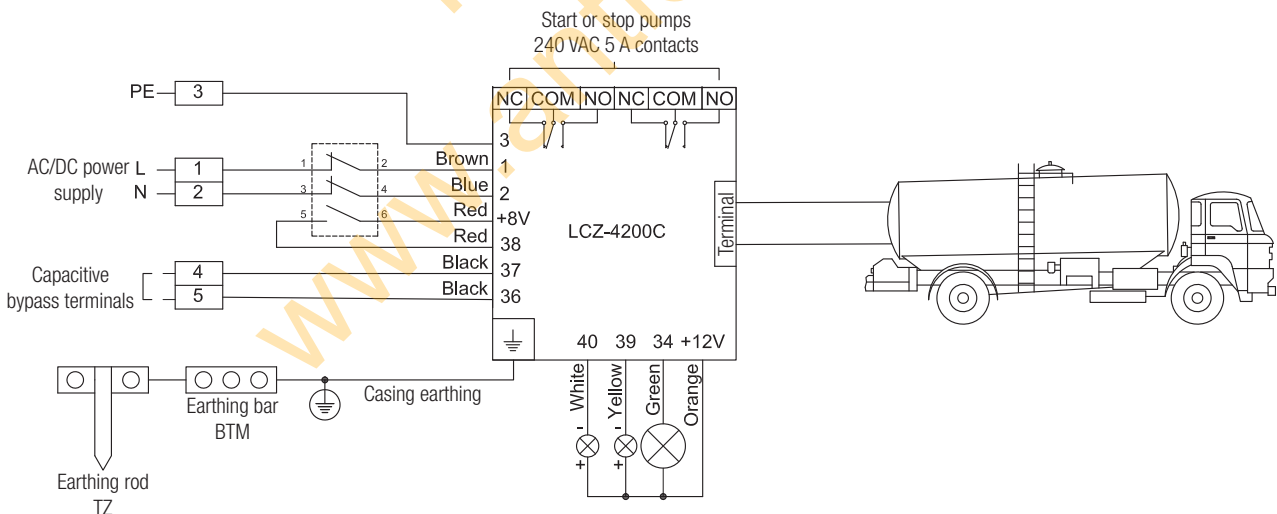


Dimensions in mm

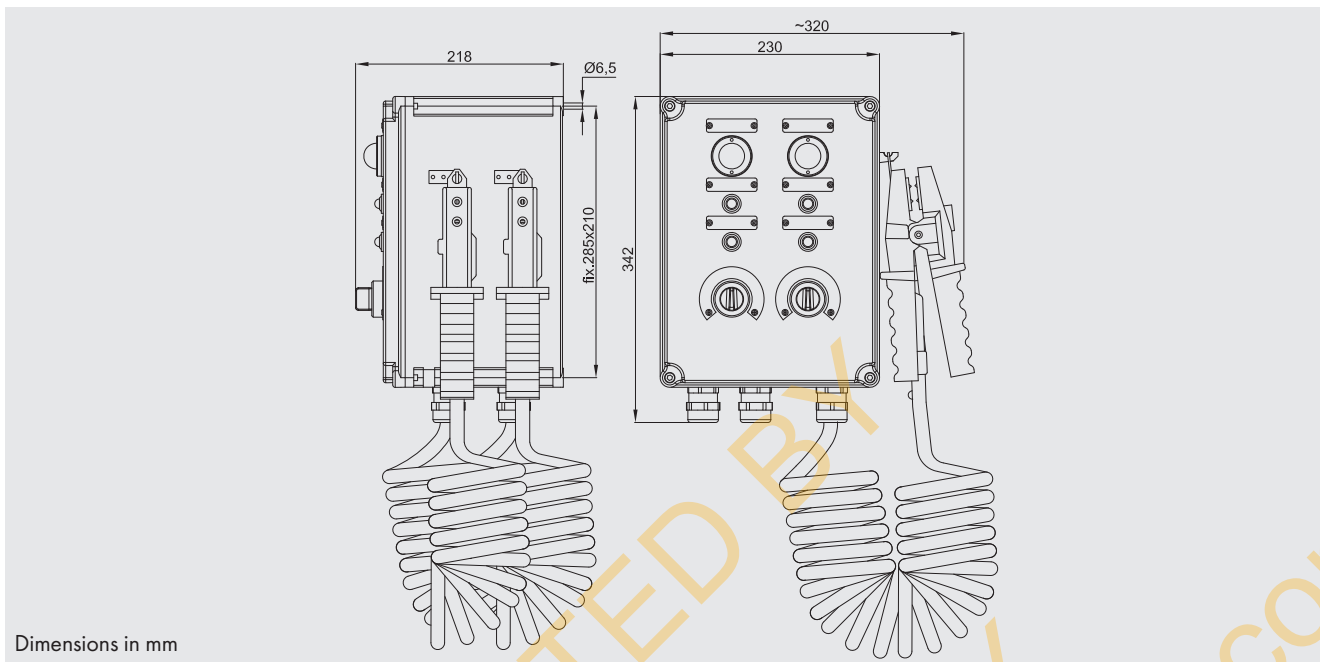
SELECTION TABLE

Code	Housing material	Number of pliers	Power	Power supply	Rated frequency	Weight
GRDC-4200	Aluminium	One set of pliers	< 10W	220-240 VAC	50 - 60 Hz	3.73 kg
GRDC-4200-24				12-24 VDC	0 Hz	3.73 kg
GRDC-4200-110	110 VAC			50 - 60 Hz	3.73 kg	
GRDC-4200-P	Polyester			220-240 VAC	50 - 60 Hz	3.28 kg
GRDC-4200-P-24				12-24 VDC	0 Hz	3.28 kg
GRDC-4200-P-110				110 VAC	50 - 60 Hz	3.28 kg

WIRING DIAGRAM



DIMENSIONAL DRAWING



SELECTION TABLE

Code	Housing material	Number of pliers	Power	Power supply	Rated frequency	Weight
GRDC-4200-2	Aluminium	Two pliers	< 20W	220-240 VAC	50 - 60 Hz	6.93 kg
GRDC-4200-2-24				12-24 VDC	0 Hz	6.93 kg
GRDC-4200-2-110				110 VAC	50 - 60 Hz	6.93 kg
GRDC-4200-2P	Polyester	Two pliers	< 20W	220-240 VAC	50 - 60 Hz	6.13 kg
GRDC-4200-2P-24				12-24 VDC	0 Hz	6.13 kg
GRDC-4200-2P-110				110 VAC	50 - 60 Hz	6.13 kg

WIRING DIAGRAM

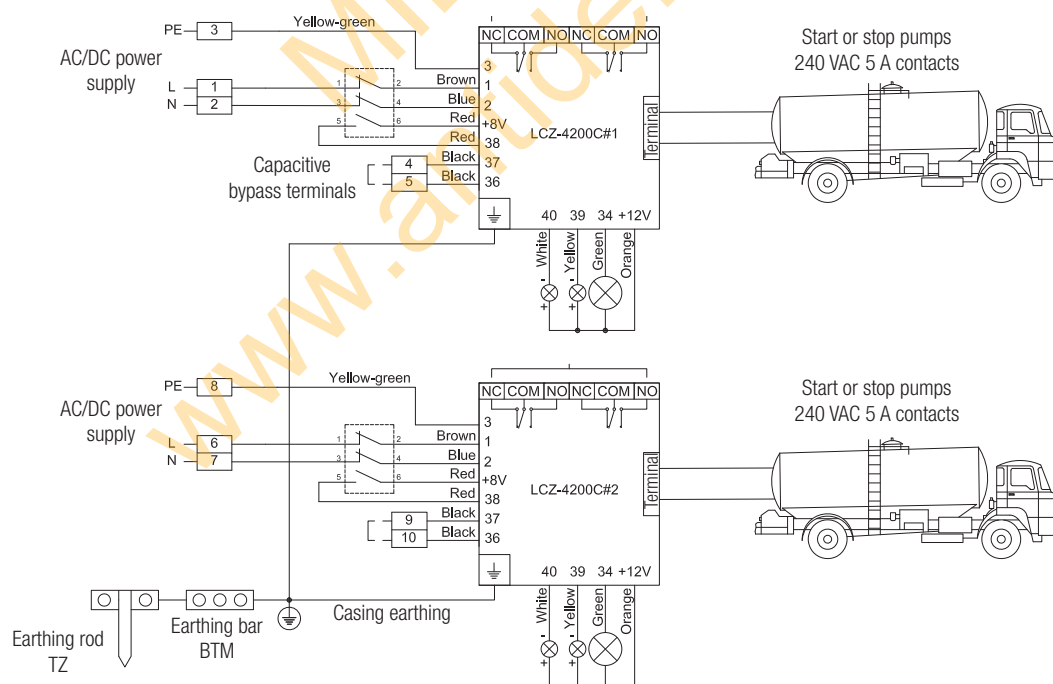




ILLUSTRATION	DESCRIPTION	MODEL	CODE	LEGEND
	Green 12 VAC/DC multi-LED indicator light	GRDC...	M-0612/3V12	
	Yellow multi-LED indicator light	GRDC...	M-0487/G	
	Colourless multi-LED indicator light		M-0487/I	
	Switch	GRDC...	M-0604/3R	
	Monitoring logic	GRDC-4200...	LCZ-4200C	
		GRDC-4200...24	LCZ-4200C/24	
		GRDC-4200...110	LCZ-4200C/110	
	Earthing pliers	GRDC...	PZCC-4209	
	Yellow cable Length: 8 metres	GRDC...	20CE063	
	Cable gland cable range 6.5 - 14	GRDC...	NAV20SIB	



The GRDE-4200 electronic earthing system help to prevent fire and explosions in areas with hazardous levels of static electricity when trucks or trains load and unload liquids and dry materials.

During the entire loading and unloading phase, the device checks that the equipotentiality of the earthing system is maintained by using the connection of an earthing clamp.

In fact, the electronic system is equipped with a protection circuit that checks the resistance value and compares it to the set parameter and, if this value falls within the pre-set range, closes the electrical circuit between the two systems that are equipotential. Viceversa, it removes the operating consent from the loading pump and closes the loading valve.

The GRDE-4200 is composed by 'Ex eb/tb' enclosure, which contain the ATEX/IECEx certified grounding control logic LCZ-4200, and Ex eb/ 'tb' control and signal devices such as selectors and alert LED lights. It can be provided with one or two earthing clamps for the connection to tank trucks or other metallic parts.

Manufacturer applies a tamper-evident holographic security label to its products, complete with a unique authentication numeric code, to combat the illegal sale of imitations and counterfeits, as well as guarantee the authenticity of its products. Failure to observe international standards creates serious risks for the environment and, above all, for the personnel who work with the systems on a daily basis.

Sectors of application:



CERTIFICATION DATA

Classification:	Group II	Category 2GD		
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)		
Marking:	CE 0722 Ex II 2GD - Ex db eb mb [ia Ga] IIC T.. Gb - Ex tb [ia Da] IIIC T.. °C Da IP66			
Certificate:	ATEX	CML 20 ATEX 3235X		
	IEC Ex	IECEx CML 20.0144X	For all IEC Ex, UKEX certification data, contact comm@antideflagrantiGCE.com	
	UKEX	AVAILABLE		
Standards:	CENELEC EN 60079-0: 2018, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-11: 2012, EN 60079-18: 2015, EN 60079-31: 2014, EN 60529: 1991 and the European Directive 2014/34/UE. IEC 60079-0: 2017, IEC 60079-1: 2014-06 IEC 60079-7: 2015, IEC 60079-11: 2011, IEC 60079-18: 2017, IEC 60079-31: 2013, IEC 60529: 2001. RoHS Directive 2002/95/EC.			
Temperature class:	85°C (T6)	85°C (T5)		
Ambient Temperature:	-40°C +50°C	-40°C +60°C		
Degree of protection:	IP66			



GRDE-4200..



GRDE-4200..P ..



MECHANICAL FEATURES

GRDE-4200..

Body and lid:

Low copper content aluminium alloy

Impact protection rating:

IK10

Gasket:

Acid, hydrocarbon and high temperature-resistant silicone, located between body and lid

Certification label:

Aluminium plate riveted onto lid

Bolts and screws:

Stainless steel captive variety

Earth screws:

Stainless steel. On inside and outside of body complete with anti-rotation brackets

Mounting:

Cast aluminium feet for M6 screw

Coating:

Polyester RAL 7035 (Light grey)

Corrosion Resistance:

The STANDARD of the aluminium alloy used by manufacturer has passed the tests required by standards EN 60068-2-30 (hot/humid cycles) and EN 60068-2-11 (salt mist tests)

GRDE-4200..P..

Body and lid:

Made from polyester resin in black with antistatic properties

Impact protection rating:

IK10

Gasket:

Acid, hydrocarbon and high temperature-resistant silicone, located between body and lid

Mounting:

Polyester feet for M6 screws

Certification label:

Aluminium plate riveted into lid

Bolts and screws:

Stainless steel captive variety

Plier:

Bipolar, casting with aluminium with handles in neoprene, jaws with steel tips, auto-releasing. 16 mm opening.

Spiral cable:

Yellow with oil and chemical resistant rubber coating. Suitable for very high mechanical stresses. Length 8 meters (extended).

Bracket for plier:

In stainless steel.

Selector lever:

In aluminium with black anodic oxidation.

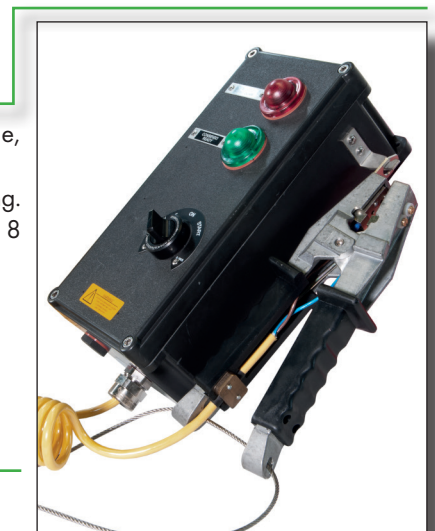
Indicator light:

In transparent colored polycarbonate.

SPECIAL REQUESTS

Cableglad

Model with body and lid in stainless steel AISI 316L





The use of the grounding system in Ex environments

Equipotential bonding of electrostatically charged metal masses

Everyone must have experienced an electrostatic shock at least once, on a cold, dry afternoon, when exiting a car and touching the door handle to close it. The static energy accumulated by being in a car isolated from the ground, discharges to the ground itself through our body when we come into contact with it if we are not isolated (wearing rubberised shoes).

Static electricity in the human body can reach 10-15 kV (kilovolts) and its discharge can reach 20-30 mJ (millijoules), which is well above the ignition limit of propane, gasoline vapours and fine dust particles.

In potentially explosive atmospheres, these phenomena occur while loading and/or unloading vehicles carrying flammable and explosive products. Hazardous environments that require an earthing system are, for example:

- loading/unloading tanker bays,
- jetties used for loading/unloading oil, methane or gas tankers
- silos used to transfer liquid or solid products.

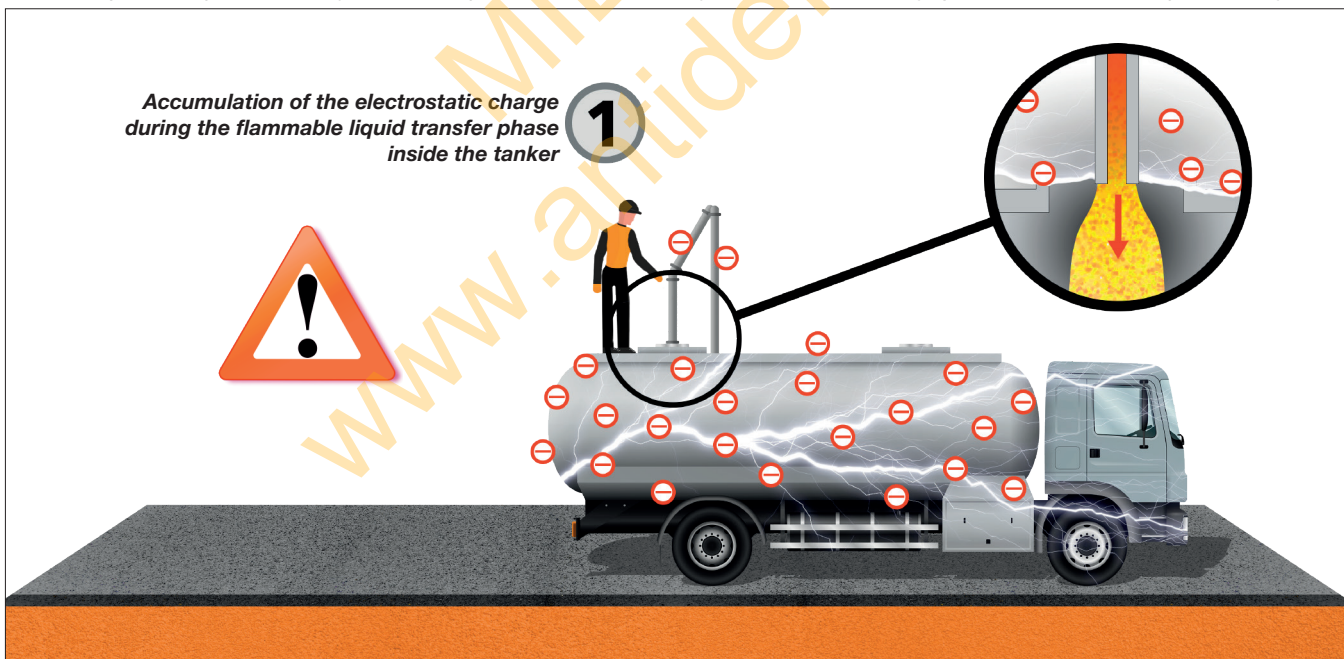
Filling, dispensing, transporting and tipping materials into vehicles or containers generates static electricity simply through the movement of the material being processed or handled.

The charge level is greater for poorly conductive solvents flowing through plastic pipes. Furthermore, a fast flow or large amounts of air bubbles flowing through the pipe can amplify the static electricity.

The flammable charge can ignite if the vehicle is not adequately earthed.

An earth connection between the tanker and the earth network of the plant is not enough to prevent sparks from being generated a number of safety measures must be adopted, which connect the two systems safely, guaranteeing the safety of people and the property. These systems are commonly referred to as "earthing systems" and function based on the principle of equipotential bonding of conductive and semi-conductive metal objects while loading or unloading potentially explosive products.

For this reason, the "earthing" systems must be implemented in such a way as to guarantee full plant functionality while protecting the safety of the operators assigned, in compliance with current regulations. The earthing system connects the object to the ground



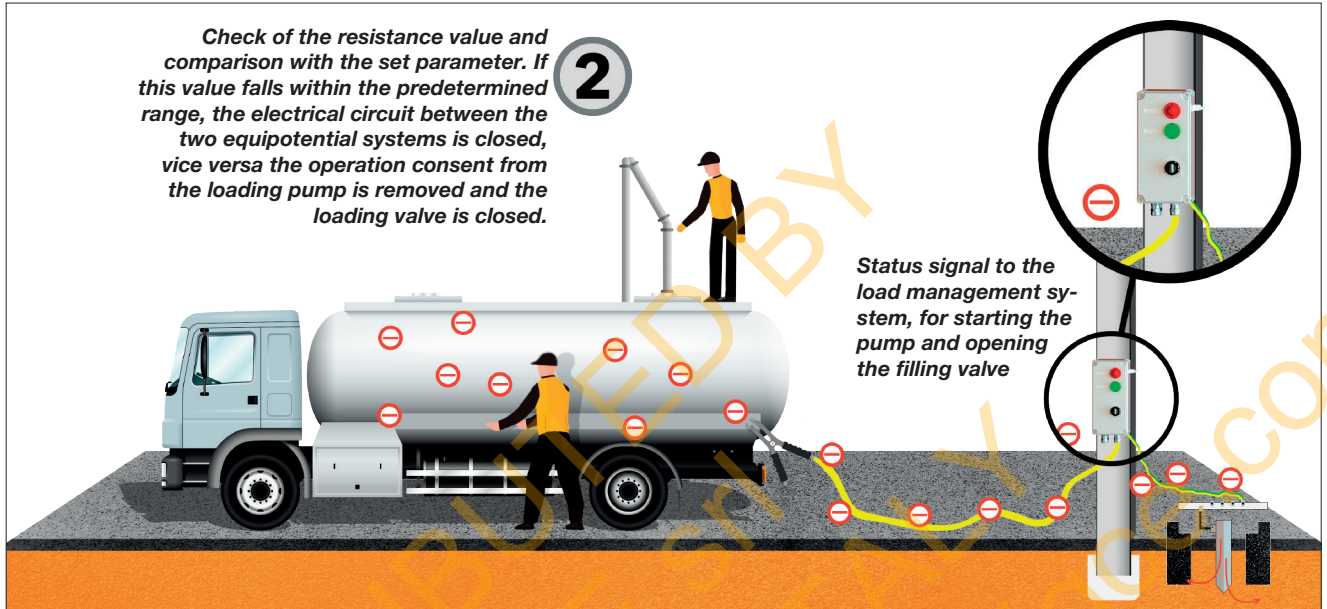


GRDE-4200 Electronic earthing system 'Ex eb / tb'

and discharges any accumulated voltage, which is absorbed by the ground and neutralised.

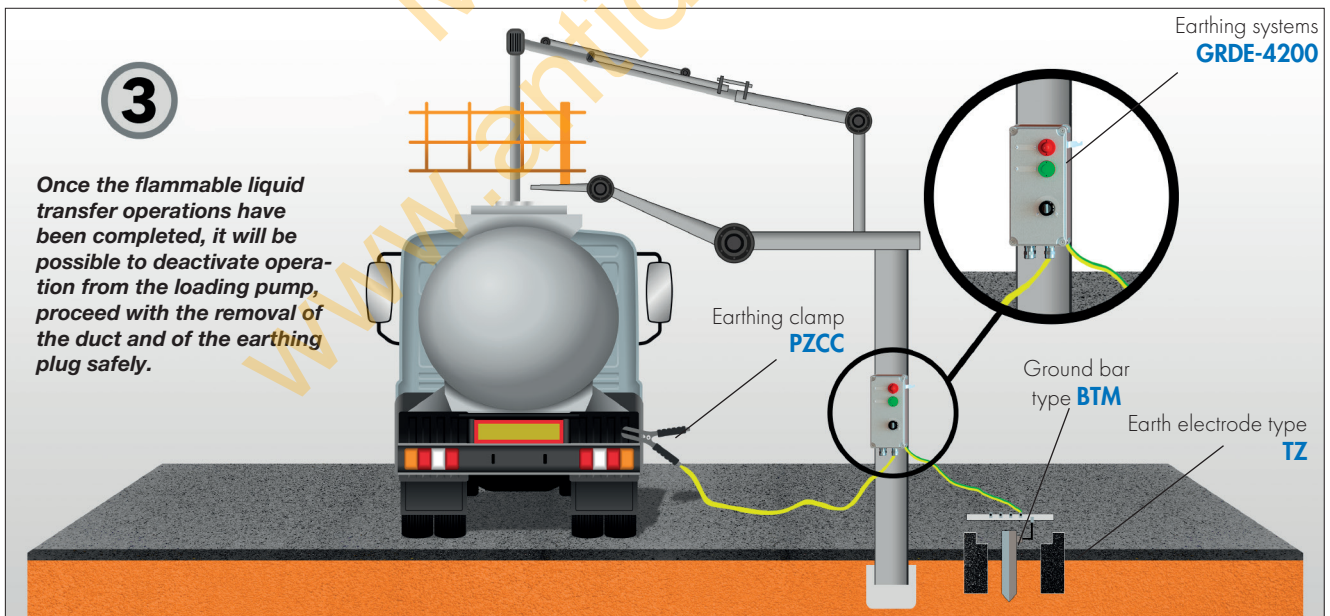
GRDE series earthing device meets all the functionality and safety specifications set forth in the regulations for such operations and is designed to be installed in environments at risk of explosion due to the presence of flammable gas and/or dust.

In fact, this system consists of an earth control logic called LCZ-4200, which thanks to the 'Ex mb' protection, besides controlling the earth connection parameters, also has an 'Ex ia' intrinsic safety barrier that ensures the coupling of the clamp for the safe earth



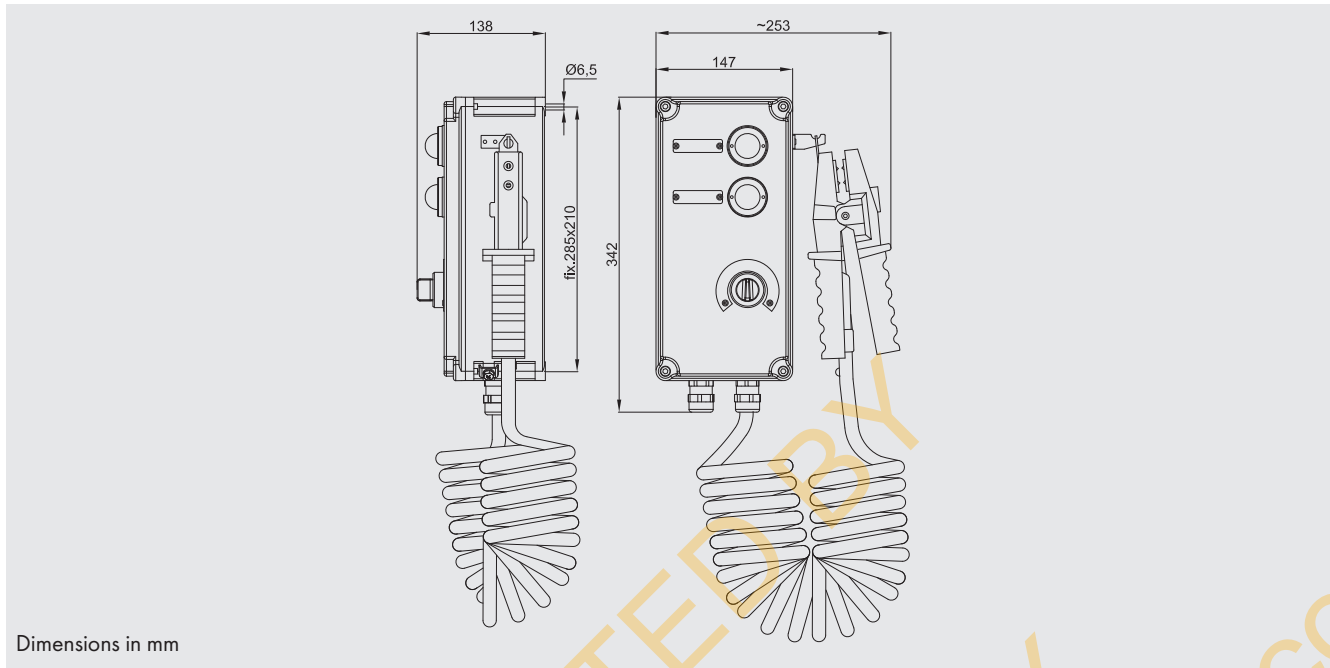
connection.

Moreover, thanks to this logic, besides enabling the earth connection so as to eliminate the electrostatic charges of the tanker, cistern, etc., the GRDE system can also be used to enable the loading/unloading pump to switch-on thanks to a double contact relay. In this way, in the unfortunate event that the earth connection fails, the loading/unloading of the flammable liquid is immediately blocked in complete safety until the earth connection is restored. The GRDE system can be supplied with one or two earthing clamps for the simultaneous connection of several tankers or other metal parts.





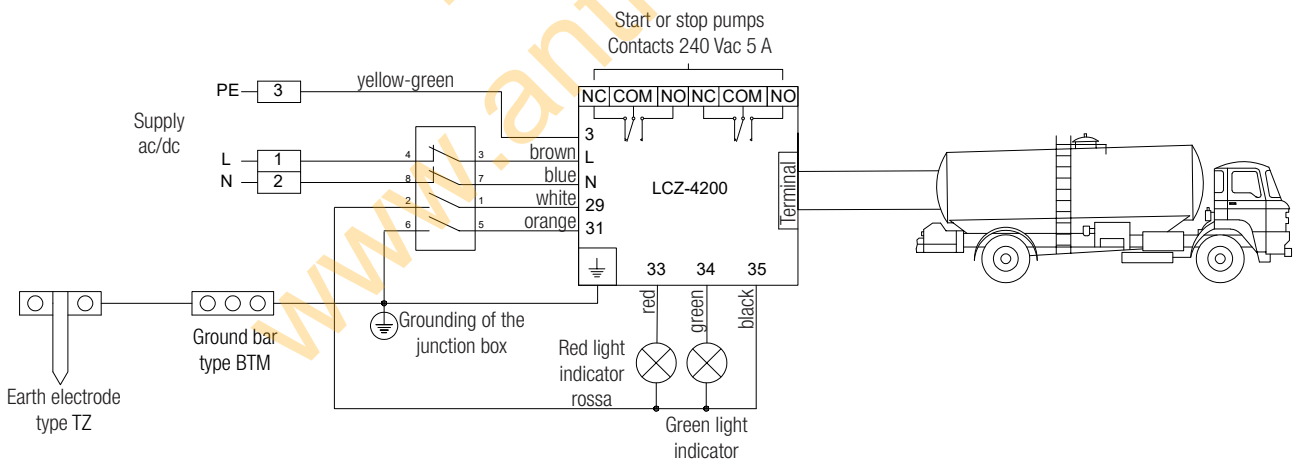
DIMENSIONAL DRAWING



Dimensions in mm

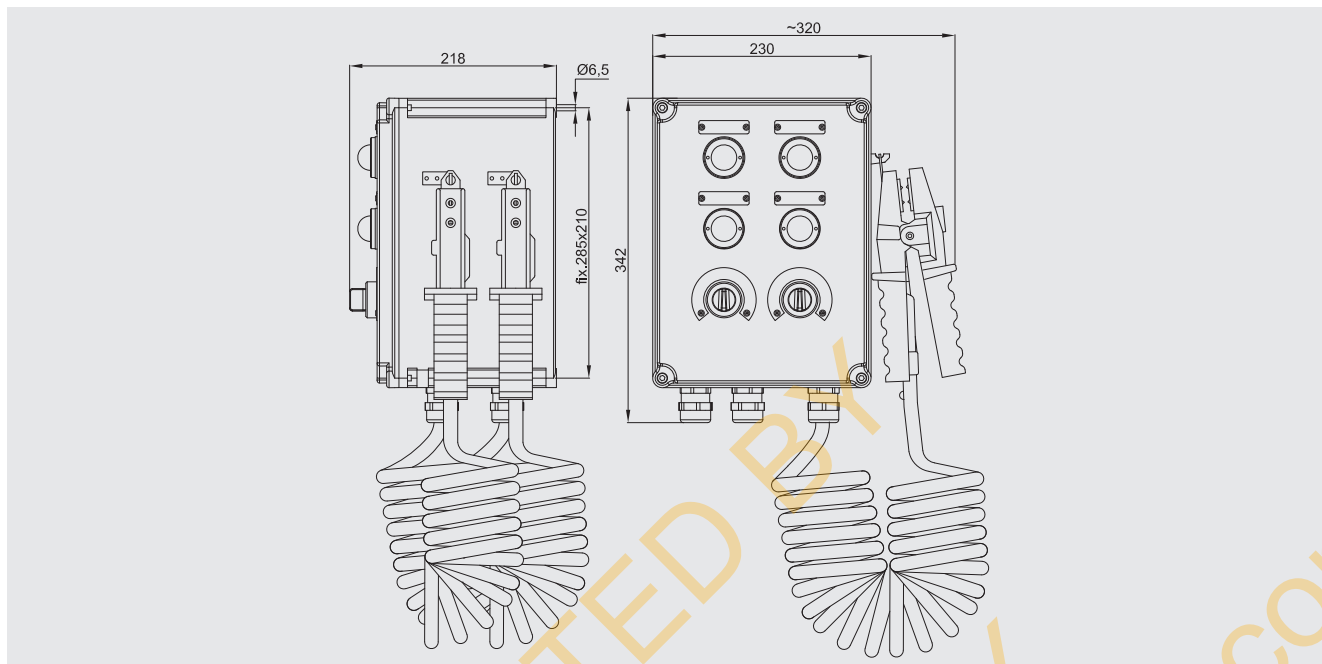
SELECTION TABLE

Code	Material of the junction box	Number of pliers	Power supply	Rated frequency	Power consumption	Weight
GRDE-4200	Aluminium	One plier	220-240 Vac	50 - 60 Hz	6 W	3,25 Kg
GRDE-4200-12			12 Vac/dc	0 - 50 - 60 Hz		3,25 Kg
GRDE-4200-24			24 Vac/dc	0 - 50 - 60 Hz		3,25 Kg
GRDE-4200-110			110 Vac	50 - 60 Hz		3,25 Kg
GRDE-4200-P	Polyester	One plier	220-240 Vac	50 - 60 Hz	6 W	2,80 Kg
GRDE-4200-P-12			12 Vac/dc	0 - 50 - 60 Hz		2,80 Kg
GRDE-4200-P-24			24 Vac/dc	0 - 50 - 60 Hz		2,80 Kg
GRDE-4200-P-110			110 Vac	50 - 60 Hz		2,80 Kg



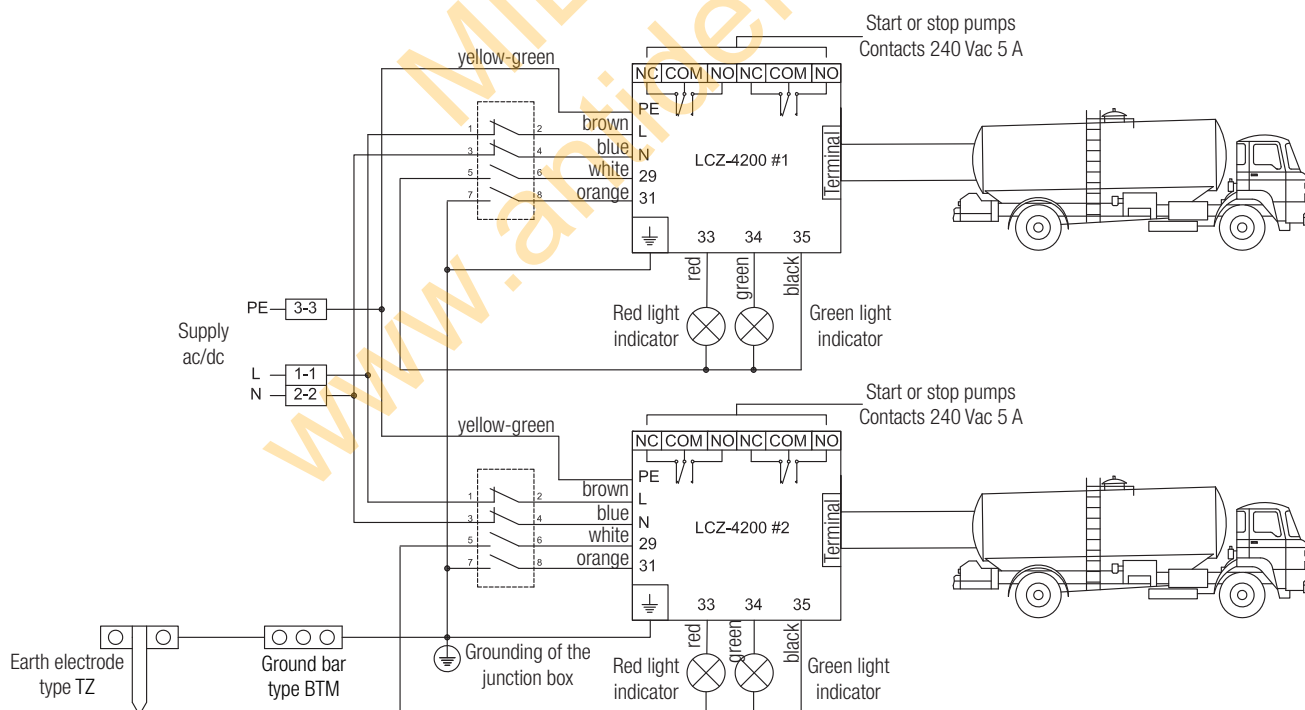


DIMENSIONAL DRAWING



SELECTION TABLE

Code	Material of the junction box	Number of pliers	Power supply	Rated frequency	Power consumption	Weight
GRDE-4200-2	Aluminium	Two pliers	220-240 Vac	50 - 60 Hz	12 W	6,45 Kg
GRDE-4200-2-12			12 Vac/dc	0 - 50 - 60 Hz		6,45 Kg
GRDE-4200-2-24			24 Vac/dc	0 - 50 - 60 Hz		6,45 Kg
GRDE-4200-2-110			110 Vac	50 - 60 Hz		6,45 Kg
GRDE-4200-2P	Polyester	Two pliers	220-240 Vac	50 - 60 Hz	12 W	5,65 Kg
GRDE-4200-2P-12			12 Vac/dc	0 - 50 - 60 Hz		5,65 Kg
GRDE-4200-2P-24			24 Vac/dc	0 - 50 - 60 Hz		5,65 Kg
GRDE-4200-2P-110			110 Vac	50 - 60 Hz		5,65 Kg



GRDE-4200 Accessories upon request and spare parts



ILLUSTRATION	DESCRIPTION	MODEL	CODE	KEY
	Red multi-LED indicator 12 Vca/cc	GRDE-4200..	M-0612/3R12	
	Green multi-LED indicator 12 Vca/cc		M-0612/3V12	
	Special switch	GRDE...	M-0604/2R	
	Monitoring logic	GRDE-4200...	LCZ-4200	
		GRDE-4200...12	LCZ-4200/12	
		GRDE-4200...24	LCZ-4200/24	
		GRDE-4200...110	LCZ-4200/110	
	Earthing pliers	GRDE...	PZCC-4209	
	Yellow cable Length: 8 metres	GRDE...	20CE063	
	Cable gland range cable 6,5÷14	GRDE...	NAV20IB	 

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GRD-4200 Electronic earthing system



The GRD-4200 series electronic earthing system ensures grounding of tankers and tank trucks during the transfer of flammable liquids, preventing the formation of electrostatic charges.

During the entire loading and unloading phase, the device checks that the equipotentiality of the earthing system is maintained.

In fact, the electronic system is equipped with a protection circuit that checks the resistance value and compares it to the set parameter and, if this value falls within the preset range, closes the electrical circuit between the two systems that are equipotential. Vice versa, it removes the operating consent from the loading pump and closes the loading valve.

The GRD-4200 electronic earthing system has obtained SIL (Safety Integrity Level) Level 2 certification in compliance with IEC-61508 and EN-50495 standards, which guarantees that the system is able to perform its safety function.

Manufacturer applies a tamper-evident holographic security label to its products, complete with a unique authentication numeric code, to combat the illegal sale of imitations and counterfeits, as well as guarantee the authenticity of its products. Failure to observe international standards creates serious risks for the environment and, above all, for the personnel who work with the systems on a daily basis.

Sectors of application:



Petroleum refineries



Chemical and petrochemical facilities



Onshore facilities



Offshore facilities



Petroleum loading/unloading pontoon



Agribusiness facilities



Fuel storage facilities

CERTIFICATION DATA

Classification:	Group II	Category 2GD		
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)		
Marking:	CE 0722 Ex II 2(1) G - Ex d [ia Ga] ia IIB+H ₂ T6 Gb			
	CE 0722 Ex II 2(1) D - Ex tb [ia Da] ia IIIC T85°C Db			
Certificate:	ATEX	CESI 04 ATEX 129		
	IEC Ex	IECEX CES 14.0035X	For all IEC Ex certification data, contact comm@antideflagrante.com	
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-11: 2012, EN 60079-31:2009 and the European Directive 2014/34/UE. IEC 60079-0: 2011, IEC 60079-1: 2007, IEC 60079-11: 2011, IEC 60079-31: 2008 RoHS Directive 2002/95/EC.			
Temperature class:	85°C (T6)			
Ambient Temperature:	-20°C +55°C			
Degree of protection:	IP66			

comm@antideflagrante.com



MECHANICAL FEATURES

Body and lid:	Low copper content aluminium alloy
Gasket:	Acid, hydrocarbon and high temperature resistant silicone positioned between the body and the lid
Certificate label:	Riveted aluminium on lid
Screws, bolts and nuts:	Stainless steel
Earthing screw:	Stainless steel M6. Inside and outside the body and on the lid, complete with anti-rotation brackets
Fastening brackets:	Electrolytically galvanized steel
Lever on lid:	In coated aluminium
Warning lights:	Impact and UV resistant polycarbonate
Coating:	Polyester RAL 7035 (Light grey)
Resistenza alla corrosione:	The STANDARD of the aluminium alloy used by manufacturer has passed the tests required by standards EN60068-2-30 (hot-humid cycles) and EN60068-2-11 (salt fog test)
Inputs:	2 threaded holes 3/4" NPT. Complete with a PLG2N plug
Cable gland:	For non-armored cable, internally sealed, thread 3/4" NPT
Cable:	Yellow with trim in rubber resistant to oil and chemical substances. Suitable for extremely high mechanical stresses. Length 8 m.
Plier:	Bipolar, casting with aluminium with handles in neoprene, jaws with steel tips, auto-releasing. 16 mm opening.
Bracket for plier:	In stainless steel.

ELECTRICAL FEATURES

Rated voltage:	230 Vac o 110 Vac o 24 Vac dc
Rated frequency:	max. 50/60 Hz

GRD-4200		
Status:	Block	Consent
Current draw:	12 mA	24 mA
Power:	1.64 W	4.32 W
Power factor:	0.57	0.82

GRD-4200/110		
Status:	Block	Consent
Current draw:	22 mA	45 mA
Power:	1.52 W	4.18 W
Power factor:	0.62	0.84

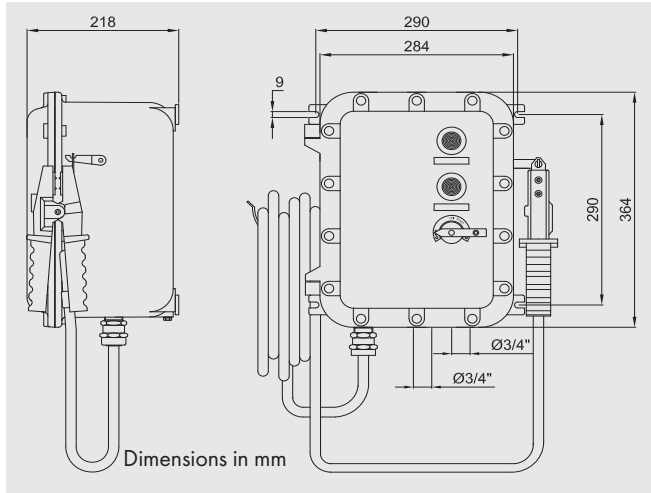
GRD-4200/24				
Status:	Block		Consent	
	24 Vac	24 Vdc	24 Vac	24 Vdc
Voltage:	24 Vac	24 Vdc	24 Vac	24 Vdc
Current draw:	64 mA	24 mA	64 mA	24 mA
Power:	1.64 W	4.32 W	1.64 W	4.32 W
Power factor:	0.57	0.82	0.57	0.82

ACCESSORIES UPON REQUEST / SPECIAL REQUESTS

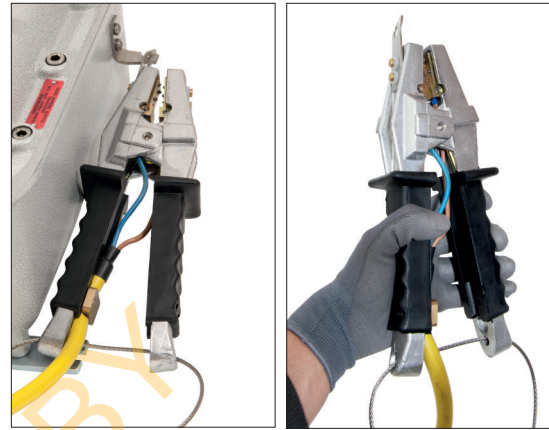
Cable gland
Pliers PMT-B2



DIMENSIONAL DRAWING



Detail of connection pliers



SELECTION TABLE

Code	Power supply	Rated frequency	Weight Kg
GRD-4200	230 Vac	50 - 60 Hz	20
GRD-4200/110	110 Vac	50 - 60 Hz	20
GRD-4200/24	24 Vac dc	0 / 50 - 60 Hz	20

ELECTRICAL WIRING

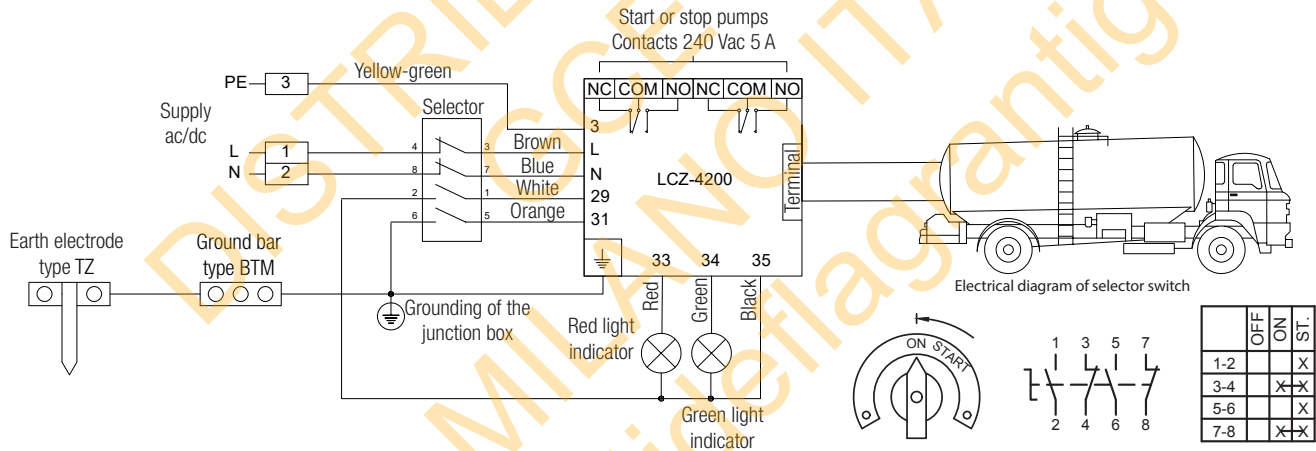


ILLUSTRATION	DESCRIPTION	MODEL	CODE	LEGEND
	Special switch	GRD...	SEA10X2/12EZ16R	
	Monitoring logic	GRD-4200	LCZ-4200	
		GRD-4200/110	LCZ-4200/110	
		GRD-4200/24	LCZ-4200/24	
	Earthing pliers	GRD...	PZCC-4209	
	Yellow cable Length: 8 metres	GRD...	NSSHOU-02X2,5	
	Barrier cable gland	GRD...	NAV2NB	