

ATEX DELVALLE GENERAL CATALOGUE

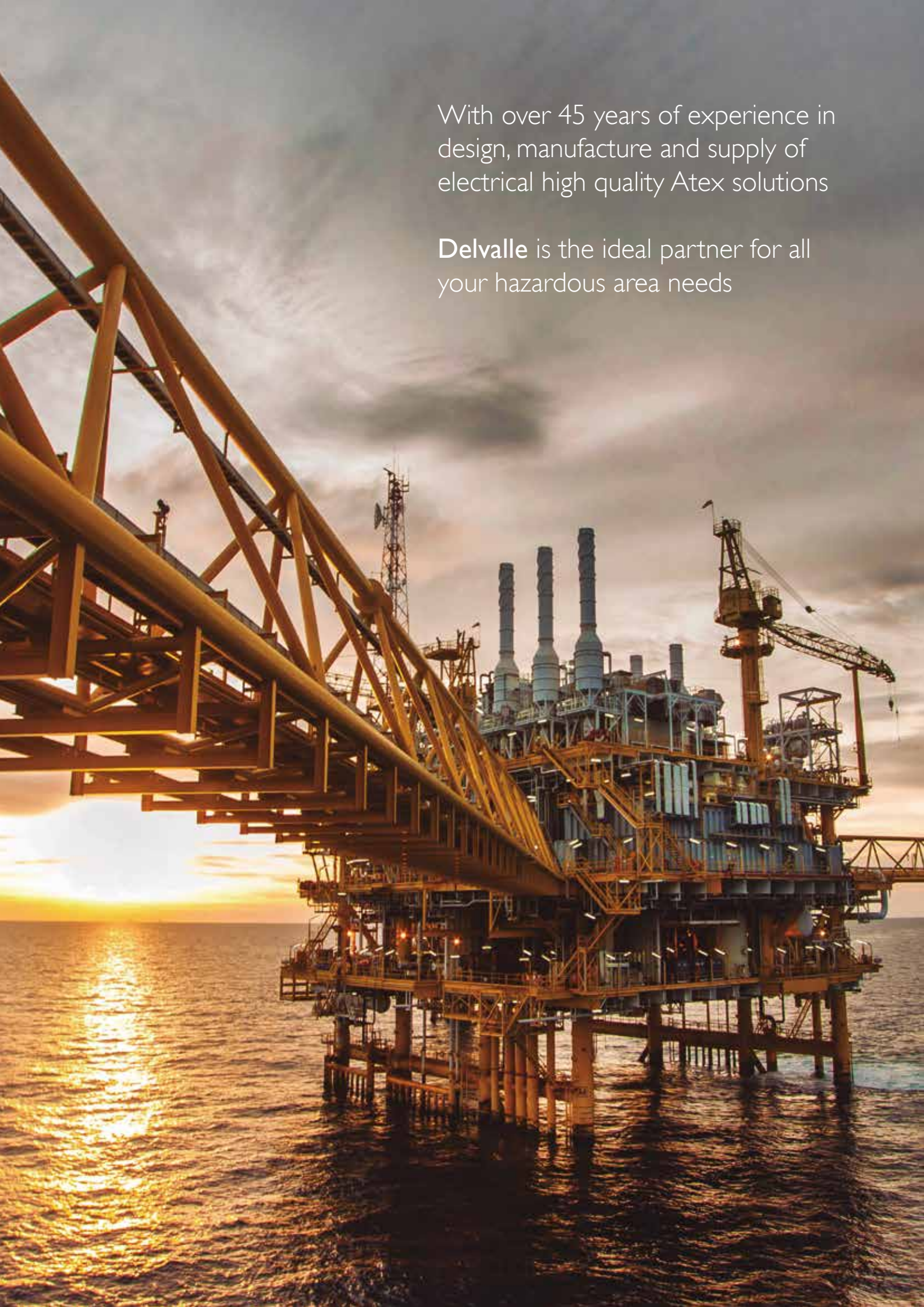
FLEXIBLE SOLUTIONS

**FOR HAZARDOUS AREAS UNDER
ATEX & IECEx DIRECTIVES**





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A large offshore oil platform is shown at sunset. The platform's complex steel structure, including pipes and walkways, is silhouetted against the bright orange and yellow sky. The sun is low on the horizon, creating a strong reflection on the dark, choppy water. In the background, several tall, cylindrical smokestacks or chimneys are visible, along with a crane on the right side of the platform. The overall scene conveys a sense of industrial scale and activity in a remote maritime location.

With over 45 years of experience in
design, manufacture and supply of
electrical high quality Atex solutions

Delvalle is the ideal partner for all
your hazardous area needs



YOUR NEEDS ARE OUR NEEDS

A team at your disposal
to offer their best solutions



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Delvalle, wide experience in manufacturing solutions for hazardous area



In Delvalle we love challenges and for this alone we take them on strongly with the ATEX electric cabinets to meet the highest technical requirements and complying with the strictest rulings: Ex Hazardous Area Solutions.

The whole Delvalle team is fully convinced it has the answers you need regarding Ex and flameproof enclosures.



WHY CHOOSE Delvalle? OUR ADVANTAGES:



FAST SERVICE

From the moment we receive your order at Delvalle and our technical department validates the drawings, we are able to deliver a custom-made ATEX enclosure in 3 weeks (maximum).



RECOGNIZED CERTIFICATIONS

Our products are certified according to the strictest ATEX and IECEx standards (worldwide).



ALL SIZES

Delvalle offers enclosures of every measurement. Our production capacity allows us to make products with dimensions that are unthinkable for other manufacturers.



ABSOLUTELY FLEXIBLE

Our manufacturing system reduces engineering hours as we believe in "Lean methodology" that eliminates unnecessary waste for the customer, and makes us more effective in saving resources.



THE BEST MATERIALS

It is not necessary for you to make a high investment, we give you the opportunity to choose the materials and pay only for what you need: AISI 304L and AISI 316L stainless steel.



ATEX DELVALLE ENGINEERING

All our knowledge is available to the most demanding customers

Classification of areas according to the 2014/34/EC directive concerning Atex Equipment is aimed at protecting equipment and areas where liquids, gases and/or explosive dust are to be found.

That is the way to reduce risks and increase protection in a profitable and reasonable way.

The most common environments where Ex Atex enclosures are required are the following: places with flammable vapors and gases, areas where hazardous liquids are transferred, installations for painting cabins, warehouses with solvent substances, and also those places with the possible presence of combustible dust such as grain stores, mills...

Thus, the objective is to ensure that devices and equipment manufactured under these rules meet the safety requirements by eliminating ignition sources and minimizing the consequences of possible explosions.

In Delvalle, our engineers are given an exhaustive training on Certification ISmAtex 2 issued by the Notified Organism INERIS that accredits the selection and assembly of Atex electrical appliances and the review and inspection of Atex equipment, through a complete compendium of specific matters.

We can say that Delvalle keeps its leading position in terms of Atex experience and we are proud of it.



CERTIFICATIONS

Viability and technical capacities are certified in our specific equipment for hazardous areas



Our protection solutions against explosion are fully certified to meet the demands of global markets. We comply with EX Atex and IECEx certification's to meet the strictest requirements worldwide. Delvalle rises to any challenge, even in the most demanding industries.



At Delvalle we are aware the decision to choose one supplier over another depends on the project need and the country. Whereas UL is the norm in USA, CE is the one in Europe.

We have eliminated this choice. We comply with both so only the project type determines the choice.



LOM Test Certificates

Thanks to the experience acquired in equipment and protection systems destined for hazardous areas, we comply with the certificates granted by LOM (Spanish Official Laboratory J.M. Madariaga), the sole laboratory in Spain which is authorized to confer Atex and Ex certificates. LOM is among the top seven European laboratories specialized in tests, certifications, studies and investments in a wide range of activities relative to hazardous areas.



LOM I4Atex3026U
for Luxorex Series

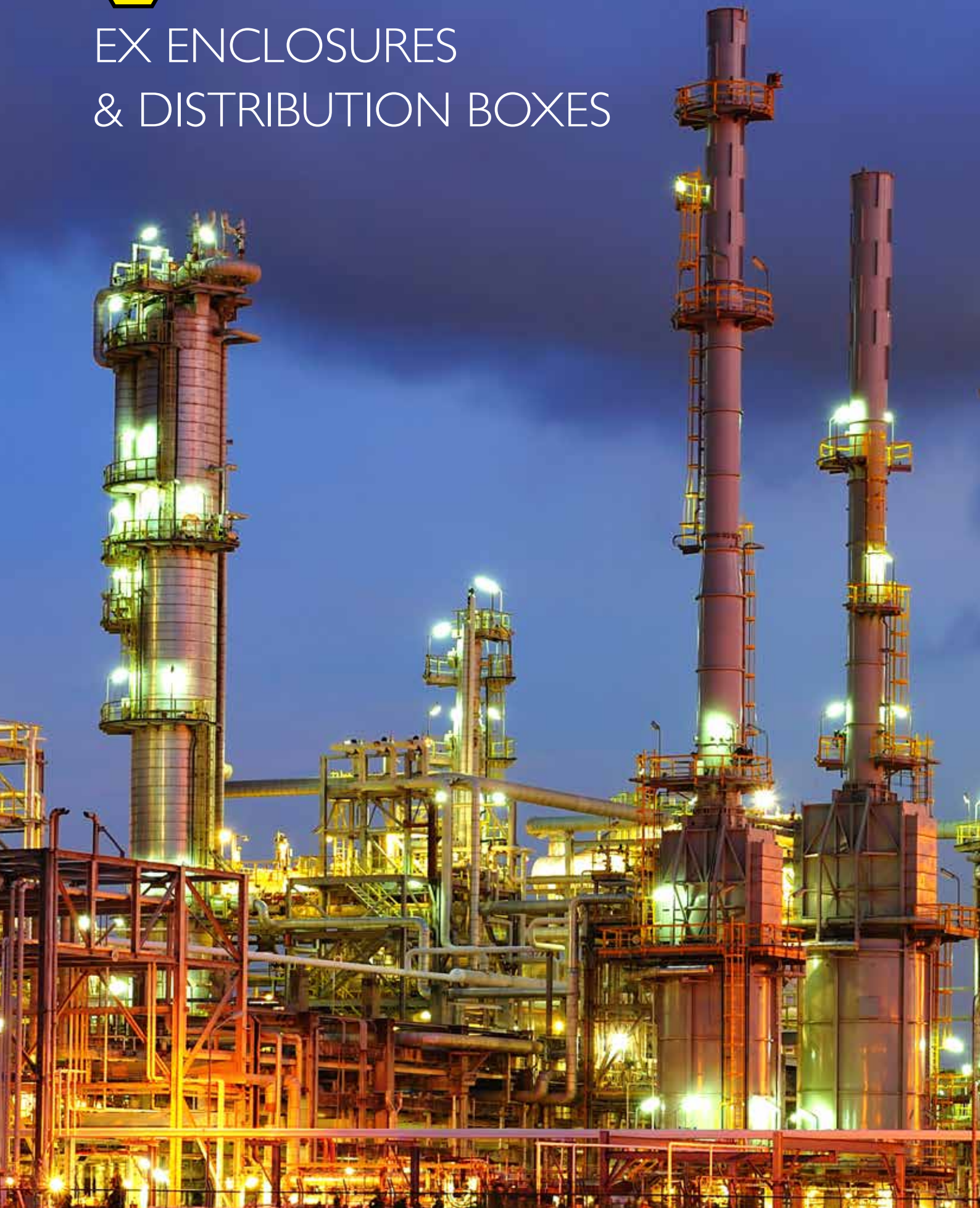
Ism Atex 2 Certification

Our engineers in Delvalle are well versed in this ruling awarded by INERIS which recognises the capability of assembling Atex electrical devices as well as their testing and inspecting passing through a full range of specific materials.





EX ENCLOSURES & DISTRIBUTION BOXES





Zones 1, 2, 21 and 22

TERMINAL & JUNCTION BOXES **TERBOX - GEOEX SERIES** IP66

**Gives Cost
and Time Savings**

Based on the design and specifications of our Geoex boxes (which are Ex-certified as final product). Terbox can be used in projects requiring the assembly and certification of junction boxes with terminal, cable glands and push-buttons, giving cost and time savings.



Examples



TECHNICAL FEATURES

- Made of stainless steel AISI 304L or AISI 316L, with a polished glossy surface finish.
- For use in zones 1, 2, 21 and 22 and to place Ex component terminals.
- Easy opening of boxes thanks to a screwed cover.
- Strict IEC 60079-7 tests passed.
- Seawater resistant.
- External M6 ground connection.
- Wide range of ambient temperatures.
- Thickness 1.5 mm (depending on boxes).
- Optional cable entry cover and hinges.
- Different mounting options.
- Operating temperature (ambience): -25° to ≤60°C.
- Voltage range: max. 1100 V.
- Current range: max. 350 A (depending on the types of terminal and Ex components used).

➔ **FOR MORE INFORMATION CLICK HERE**



TERMINAL & JUNCTION BOXES **TERBOX - GEOEX SERIES** IP66



TERMINALS

Weidmüller

Atex Delvalle mounts in Terbox Series, Weidmüller brand terminals.
We can also use other brands on request such as:



Delvalle offers users a wide range of accessories as ideal solutions for all possible tasks, even beyond the standard functions.

These accessories meet the same quality standards as the terminals themselves.



Visual separation
Endcaps



Signalling



Fixation



Electrical power
supply



Electrical distribution



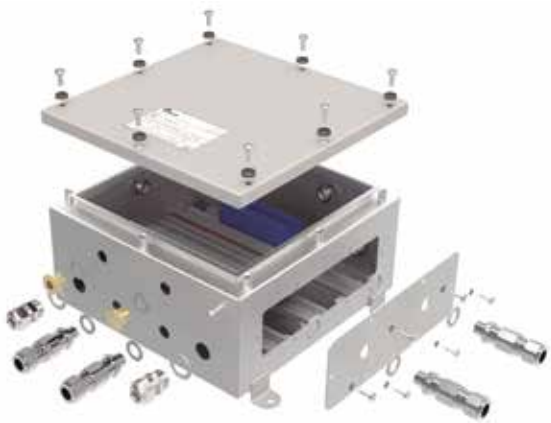
Testing



Specific functions,
color variations



TERMINAL & JUNCTION BOXES **TERBOX - GEOEX SERIES** IP66



TURNKEY PROJECTS

Options available include sizes, colours, types of connection among others.

As we have a close relationship with the main Ex certified companies in our field, we achieve total adaptability and flexibility.

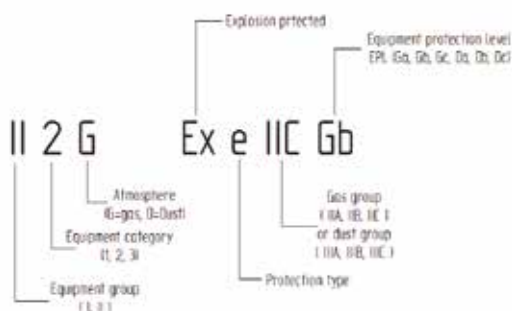
PROTECTION MODE

- According to directive EN 60079-0 for empty enclosures:
 - II 2G Ex e IICGb
 - II 2D Ex e IIIC Db IP66
- According to directive EN 60079-0 for terminal boxes:
 - II 2G Ex e IICGb
 - II 2D Ex e IIIC Db IP66
- Certificate empty box terminal:
 - LOM I4ATEX3028U
- Certificate Terbox:
 - LOM I4ATEX2082
- Certificate quality:
 - LOM I4ATEX9050
- Maximum IK10 norm IEC 62262.
- Voltage range: max. 1100V and current and voltage range: max. 350 A (depending on the types of terminal and Ex components used).

CERTIFICATION

Atex & IECEx directive and normative:

- Atex 2014/34/EU directive
- IP66 according to IEC Standard EN 62208 and EN 60529.
- IP (W) 66 corrosive environments.
- IEC 62208 and EN 62262. Degree of resistance against impact IK10.
- UNE-EN 60079-0:2011
- UNE-EN 60079-7:2007
- UNE-EN 60079-31:2014
- Operating temperature (ambience): -25° a ≤60°C.

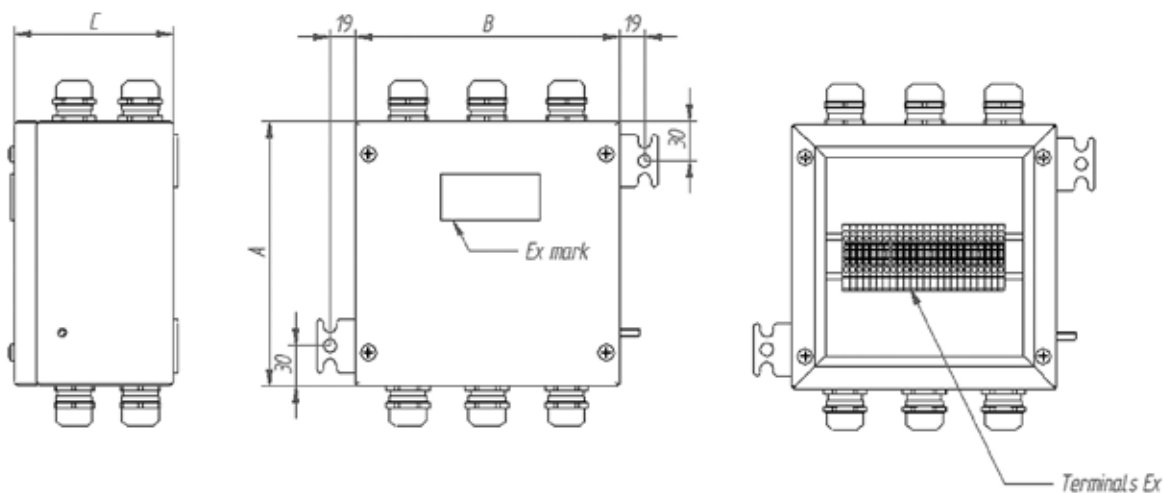


 Enclosures and cabinets for Special Requirements		DELVALLE ☎ +34 945 622 712 Paso del Prao 6 Oyón. 01320 (Spain) atex@atexdelvalle.com www.atexdelvalle.com	
CE 0163 		II 2G Ex e IIC T6 Gb II 2D Ex tb IIIC T85°C Db	
LOM-14-ATEX-2082		Type: GEOTB202012EX	
U _N =	V	-25 °C < Ta < 60°C	IP 66
I _N =	A	S. No/Year PV1415-00570-1A / 2014	
DO NOT OPEN WHEN ENERGIZED			



TERMINAL & JUNCTION BOXES **TERBOX - GEOEX SERIES** IP66

TECHNICAL SPECIFICATIONS



STAINLESS
ANTICORROSIVE



MECHANICAL
PARTS

REFERENCES

REFERENCES		N° TERMINALS													
REFERENCES	N° LANES	DIMENSIONS (mm)			6 A	10 A	16 A	24 A	32 A	50 A	80 A	110 A	130 A	150 A	230 A
		HEIGHT - A -	WIDTH - B -	DEPTH - C -	1,5 mm ²	2,5 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	35 mm ²	70 mm ²	95 mm ²	120 mm ²	240 mm ²
GEOTB111190EX	1	110	110	90	6	5	5	4	--	--	--	--	--	--	--
GEOTB161190EX	1	160	110	90	15	13	10	8	--	--	--	--	--	--	--
GEOTB111690EX	1	110	160	90	15	13	10	8	--	--	--	--	--	--	--
GEOTB261112EX	1	260	110	120	30	25	20	18	13	--	--	--	--	--	--
GEOTB112612EX	1	110	260	120	30	25	20	18	13	--	--	--	--	--	--
GEOTB202012EX	2	200	200	120	60	50	45	40	30	15	8	--	--	--	--
GEOTB252515EX	2	250	250	150	80	75	60	50	40	30	20	15	15	--	--
GEOTB302015EX	2	300	200	150	100	90	70	55	50	35	25	15	15	--	--
GEOTB203015EX	2	200	300	150	100	90	70	55	50	35	25	15	15	--	--
GEOTB303015EX	3	300	300	150	110	100	80	65	60	41	35	25	25	--	--
GEOTB404017EX	3	400	400	170	145	130	100	75	60	50	40	35	30	--	--
GEOTB505017EX	3	500	500	170	170	150	100	75	60	50	40	35	35	30	30
GEOTB606017EX	4	600	600	170	200	160	100	75	60	50	40	40	35	30	30

**Zones I, 2, 21 and 22**

HINGED TERMINAL & JUNCTION BOXES

TERBOX - LUXOREX SERIES IP66



Examples



Easy to Open

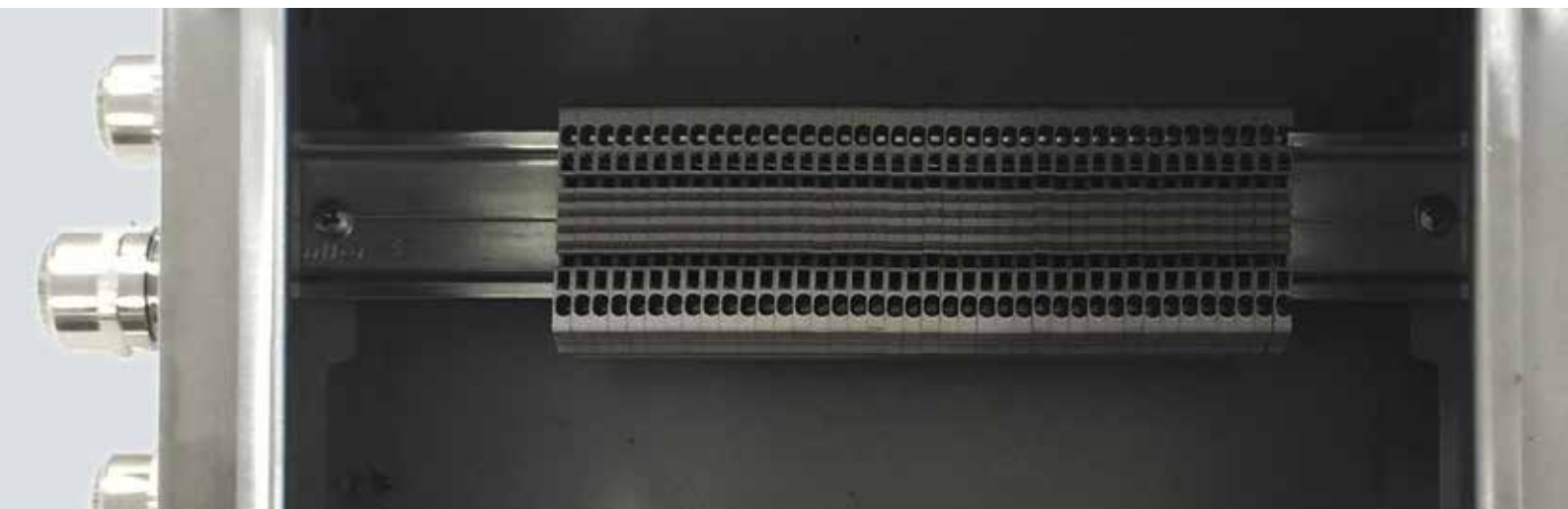
The terminal box with Terbox-Luxorex Series closures and hinges have been developed with a LOM I4ATEX3026U component certificate, sturdy and IP66 sealing.

These boxes can be used with increased safety protection mode "Ex e" including increased safety connection terminals or an "Ex t" enclosure protection mode.

These boxes stand out for incorporating Atex & IECEx components already installed inside them, without needing to re-homologize in a laboratory once assembled.

These stations are solely valid for flammable dust environments those stations where all the built-in components are suitable for group III.

➔ **FOR MORE INFORMATION CLICK HERE**





HINGED TERMINAL & JUNCTION BOXES **TERBOX - LUXOREX SERIES** IP66



ADVANTAGES

- Simple door opening with double bit fasteners.
- Great gate opening 120°.
- Robustness, safety, reliability tested.
- Polished finish on all sides.
- Large interior space that simplifies connection operations.
- Atex & IECEx components already installed inside.
- Indoor and outdoor use.
- Guaranteed corrosion protection.
- Great safety and resistance in the most aggressive explosive environments thanks to the design and materials used in its manufacture.



TECHNICAL CHARACTERISTICS

They are designed for a voltage up to 1100V and for a maximum ambient temperature up to +60°C, according to the kind of temperatures marked and currents assigned.

They are able to work between two temperature ranges, giving it greater versatility:

- $-25^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
- $-25^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$ when high current and temperature T6 are required.

As for the envelope, it is a box made of Luxorex stainless steel, which has the following characteristics:

- Ex Atex door cabinets made of stainless steel AISI 304L or AISI 316L and a satin polished surface finish.
 - They are intended to be used in explosive atmospheres classified as zones 1, 2, 21 and 22 and to place Ex components and terminals inside, as well as cable glands.
 - Unique monobloc system that achieves perfect sealing and impact resistance. With body pre-assembled, door and minimum welding.
 - Earth mass for external connection.
 - With double-bit quarter-turn locks and hinges made of stainless steel.
 - Very resistant polyurethane seal at -25°C to + 60°C.
- Boxes used as maneuver stations, incorporating certified components of connection, maneuver and Signalling: pushbuttons, emergency mushrooms, lights, pushbuttons.
 - Boxes used with enclosure protection mode.
 - These control stations may be used for connection of intrinsically safe circuits but not in combination with non-intrinsically safe circuits.

HINGED TERMINAL & JUNCTION BOXES **TERBOX - LUXOREX SERIES** IP66

TERMINALS

Weidmüller

Atex Delvalle mounts in Terbox Series, Weidmüller brand terminals.
We can also use other brands on request such as:



PROTECTION MODE

This box is certified for use in potentially explosive atmospheres of zones 1, 2, 21 and 22 and may be used with increased safety protection mode "Ex e" including increased safety connection terminals or enclosure protection mode "Ex t".

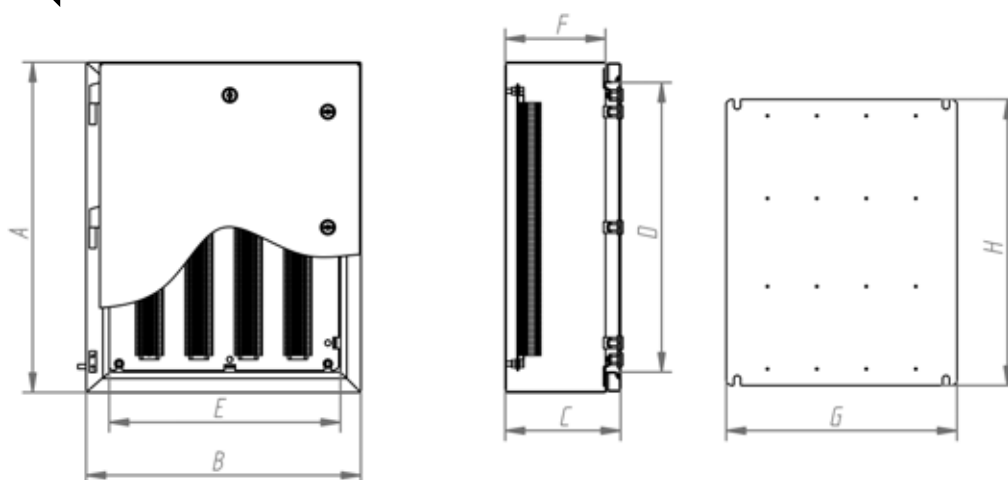
- Degree of protection Nema 4X, 12, 3r and I by request
- Certificate empty box terminal:
 - LOM I4ATEX3026U
- Certificate Terbox:
 - LOM I7ATEX1011
- Certificate quality:
 - LOM I4ATEX9050
- II 2G Ex eb IICT6/T5 Gb
- II 2D Ex tb IICT85°C/100°C Db
- IP66 protection
- Degree of resistance against impact IK10

CERTIFICATION

Atex & IECEx directive and normative:

- Atex 2014/34/EU directive
- IP66 according to IEC Standard EN 62208 and EN 60529.
- IP (W) 66 corrosive environments.
- IEC 62208 and EN 62262. Degree of resistance against impact IK10.
- UNE-EN 60079-0:2011
- UNE-EN 60079-7:2007
- UNE-EN 60079-31:2014
- Operating temperature (ambience): -25° a ≤40°C.

BLUEPRINT AND DIMENSIONS



STAINLESS
ANTICORROSIVE



MECHANICAL
PARTS



HINGED TERMINAL & JUNCTION BOXES **TERBOX - LUXOREX SERIES** IP66

REFERENCES

REFERENCES	DIMENSIONS (mm)								
TERBOX LUXOREX	HEIGHT - A -	WIDTH - B -	DEPTH - C -	USABLE INTERIOR HEIGHT - D -	USABLE INTERIOR WIDTH - E -	USABLE INTERIOR DEPTH - F -	MACHINABLE SIDE AREA		PLATE MESUREMENTS - GxH -
							DOOR	LATERAL	
LXCS302015EX	300	200	155	226	121,8	126	113x34,5	270x97,5	220x120
LXCS383015EX	380	300		306	221,8		181	193x134,5	350x97,5
LXCS383021EX			210			350x152,5			
LXCS603815EX	600	380	155	526	301,8	126	413x214,5	570x97,5	520x300
LXCS603821EX			210	326	321,8		181	570x152,5	
LXCS404021EX	400	426				421,8		213x234,5	370x152,5
LXCS504021EX	500			426	421,8		313x234,5	470x152,5	420x320
LXCS505021EX		500				626	421,8	313x334,5	670x152,5
LXCS705021EX	600			526	521,8			181	513x334,5
LXCS605021EX		600				526	521,8		271
LXCS606021EX	600			526	521,8			271	
LXCS606030EX		800	300			726	721,8		271
LXCS806030EX	800			300	726			721,8	
LXCS108030EX		1000	800			926	921,8		271
LXCS101030EX	1000			1000	926			921,8	

Separation depth plate 20mm

NUMBER OF TERMINALS PER SIZE

REFERENCES	DIMENSIONS (mm)																
TERBOX LUXOREX	HEIGHT - A -	WIDTH - B -	DEPTH - C -	RAILS	1,5 mm ²	2,5 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	35 mm ²	70 mm ²	95 mm ²	120 mm ²	240 mm ²	300 mm ²	
LXCS302015EX	300	200	155	2	75	60	29	21	17	14	11	6	6	6	-	-	
LXCS383015EX	380	300			115	90	70	60	40	40	30	8	8	8	6	4	
LXCS383021EX			210														
LXCS603815EX	600	380	155														
LXCS603821EX			210														
LXCS404021EX	400	400		3	260	210	165	135	105	90	60	26	26	26	10	8	
LXCS504021EX	500																
LXCS505021EX	500																
LXCS705021EX		700															
LXCS605021EX	600	600	4														450
LXCS606021EX																	
LXCS606030EX	800	800	300	5	750	600	525	400	260	215	160	72	72	72	54	45	
LXCS806030EX																	
LXCS808030EX	800																
LXCS108030EX		1000															
LXCS101030EX	1000																

**Zones I, 2, 21 and 22**

HIGH CAPACITY TERMINAL BOXES

TERBOX - TRIBEX SERIES IP66



Examples



High Terminal Capacity

The Terbox-Tribex Series has the biggest terminal capacity available in the world, with certificate of component LOM 14ATEX3027U.

These boxes stand out for incorporating Atex & IECEx components already installed inside them, without needing to re-homologize in a laboratory once assembled.

➔ [FOR MORE INFORMATION CLICK HERE](#)

ADVANTAGES

- Large dimensions, high terminal boxes capacity.
- Atex & IECEx components already installed inside.
- Indoor and outdoor use
- Large interior space that simplifies connection operations.
- Anti-corrosion protection guaranteed.
- It can store a large number of terminals, up to 1550 terminals in a single cabinet.
- Robustness, safety, reliability tested.
- Great safety and corrosion resistance in the most aggressive explosive environments thanks to the design and materials used in its manufacture.
- Double access option (front and rear doors).



HIGH CAPACITY TERMINAL BOXES **TERBOX - TRIBEX SERIES** IP66



TECHNICAL CHARACTERISTICS

They are designed for a maximum voltage up to 1100V and for maximum ambient temperature up to 60°C, according to class of temperature marked and currents assigned. They are able to work between two temperature ranges, to give it greater versatility:

- $-25^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
- $-25^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$

Each of the built-in components counts for the purposes of thermal dissipation and temperature class in the same way as if they were terminals.

Regarding the enclosure, it is a box made of stainless steel Tribex, which has the following characteristics:

- Ex Atex door cabinets made of stainless steel AISI 304L or AISI 316L and satin polished surface finish.
- They are intended to be used in explosive atmospheres classified as zones 1, 2, 21 and 22 and to place Ex components and terminals inside, as well as cable glands.
- Unique monobloc system that achieves perfect sealing and impact resistance. With body and door pre-assembled, and minimum welding.
- Dough insert that allows external connection.
- With double-bit quarter-turn locks and hinges made of stainless steel.
- Very resistant polyurethane seal from -25°C to $+60^{\circ}\text{C}$.
- Plugs, holes and hinges that resist from -25°C to $+60^{\circ}\text{C}$.



OPTIONS

- We manufacture with water-tightness and Atex & IECEx certifications.
- The enclosures can be used with increased safety protection mode "Ex e" including increased safety connection terminals or "Ex t" envelope protection mode.
- Boxes used as maneuver stations, incorporating certified components of connection, maneuver, signalling: push-buttons, emergency mushrooms and lights.
- Boxes used with enclosure protection mode.
- These control stations may be used for connection of intrinsically safe circuits but not in combination with non-intrinsically safe circuits.

HIGH CAPACITY TERMINAL BOXES **TERBOX - TRIBEX SERIES** IP66

TERMINALS

Weidmüller 

Atex Delvalle mounts in Terbox Series, Weidmüller brand terminals.
We can also use other brands on request such as:



PROTECTION MODE

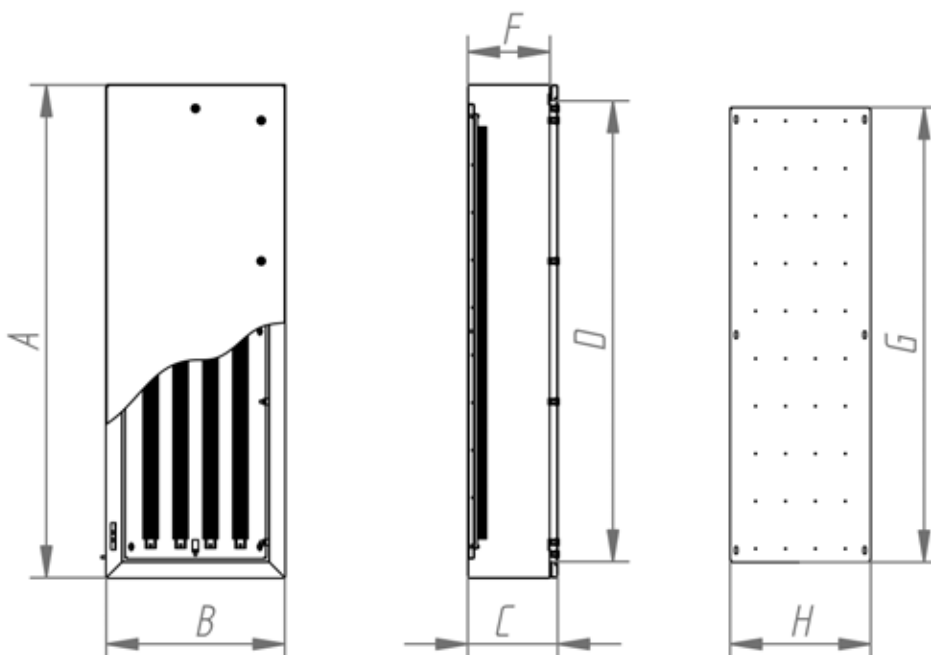
- Certificate empty box terminal:
 - LOM I4ATEX3027U
- Certificate Terbox:
 - LOM I7ATEX1012
- Certificate quality:
 - LOM I4ATEX9050
- II 2G Ex eb IICT6/T5 Gb
- II 2D Ex tb IICT85°C/100°C Db
- Protection degree Nema 4X, 12, 3r and I by request
- Degree of resistance against impact IK10
- IP66 protection

CERTIFICATION

Atex & IECEx directive and normative:

- Atex 2014/34/EU directive
- IP66 according to IEC Standard EN 62208 and EN 60529.
- IP (W) 66 corrosive environments.
- IEC 62208 and EN 62262. Degree of resistance against impact IK10.
- UNE-EN 60079-0:2011
- UNE-EN 60079-7:2007
- UNE-EN 60079-31:2014
- Operating temperature (ambience): -25° a ≤40°C.

BLUEPRINT AND DIMENSIONS



STAINLESS
ANTICORROSIVE



MECHANICAL
PARTS



HIGH CAPACITY TERMINAL BOXES **TERBOX - TRIBEX SERIES** IP66

NUMBER OF TERMINALS PER SIZE

REFERENCES	DIMENSIONS (mm)															
TERBOX TRIBEX	HEIGHT - A -	WIDTH - B -	DEPTH - C -	RAILS	1,5 mm ²	25 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	35 mm ²	70 mm ²	95 mm ²	120 mm ²	240 mm ²	300 mm ²
TBCSI26040EX	1200	600	400	4	950	760	640	500	400	320	240	70	70	70	54	48
TBCSI28040EX		800														
TBCSI21040EX		1000														
TBCSI66040EX	1650	600			1340	1080	920	700	560	460	348	100	100	100	70	60
TBCSI68040EX		800														
TBCSI61040EX		1000														
TBCSI86040EX	1800	600	1550		1260	1040	800	640	520	400	120	120	120	88	70	
TBCSI88040EX		800														
TBCSI88050EX		500														
TBCSI81040EX	2000	1000	400													
TBCSI81050EX		500														
TBCS206040EX		600	400													
TBCS208040EX	800	500														
TBCS208050EX		1000														
TBCS208010EX		400														
TBCS201040EX	1000	600														
TBCS201060EX		1000														
TBCS201010EX																

REFERENCES

REFERENCES	DIMENSIONS (mm)							
TERBOX TRIBEX	HEIGHT - A -	WIDTH - B -	DEPTH - C -	USABLE INTERIOR HEIGHT - D -	USABLE INTERIOR WIDTH - E -	USABLE INTERIOR DEPTH - F -	MACHINABLE SIDE AREA (F - 15mm per side)	PLATE MEASUREMENTS - GxH -
TBCSI26040EX	1200	600	400	1116	546	370	340	1140x470
TBCSI28040EX		800			746			1140x670
TBCSI21040EX		1000			946			1140x870
TBCSI66040EX	1650	600	400	1566	546	370	340	1590x470
TBCSI68040EX		800			746			1590x670
TBCSI61040EX		1000			946			1590x870
TBCSI86040EX	1800	600	400	1716	546	370	340	1740x470
TBCSI88040EX		800			746			1740x670
TBCSI88050EX		1000			946			1740x870
TBCSI81040EX	2000	600	400	1916	546	370	340	1940x470
TBCS208040EX		800	500		746	470	440	1940x670
TBCS208050EX		1000	600		946	970	940	
TBCS208010EX		600	400		946	370	340	1940x870
TBCS201040EX		800	500			470	440	
TBCS201060EX		1000	600			570	540	
TBCS201010EX		1000	1000			970	940	

Separation depth plate 20mm



**Zones 1, 2, 21 and 22**

GLAND PLATE EX TERMINAL BOXES **TERBOX SERIES**

**It's Easy Disassembly
that are Subject
by Means of Screws**

The Ex terminal boxes, Terbox Series include a removable cable gland plate, being useful and effective in advance to place and mechanize the different holes for cable glands and even keypads.

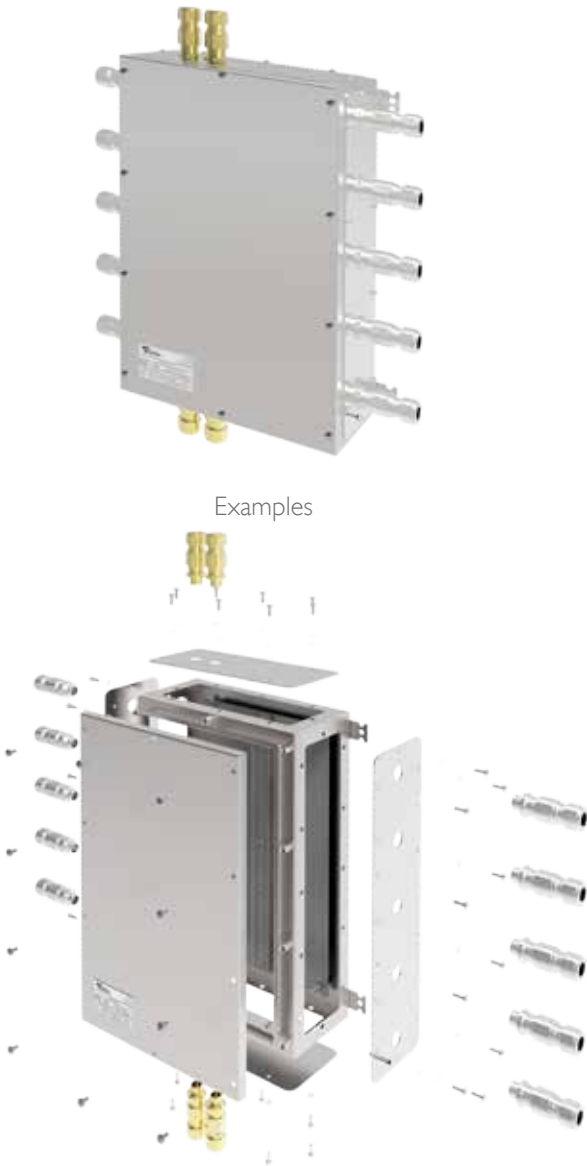
This equipment consists in a waterproof IP65, robust, safe and corrosion resistant Ex terminal box, which has been specially designed to the customer's specifications to perform the product and can deliver it in a record time.

These terminal boxes are placement in areas whereas a corrosive and hazardous areas.

In this terminal boxes you can put terminals, keypads, cable glands perform controls and maneuvers in explosive atmospheres, according to customer's specifications and be delivered with Atex final product certificate.

It's design, offers custom made terminal boxes, the exact placement of the holes and glands in the cable gland lug. It's easy disassembly that are subject by means of screws.

Examples



FOR MORE INFORMATION CLICK HERE





GLAND PLATE EX TERMINAL BOXES **TERBOX SERIES**



TECHNICAL CHARACTERISTICS

- Ex Terminal boxes manufactured of stainless steel AISI 304L or AISI 316L marine corrosion resistant and polished elegant surface finish.
- They are intended for use in explosive atmospheres listed as zones 1, 2, 21 and 22 and to place Ex components, terminals inside, as well as cable glands and keypads.
- Large inside space that simplifies connection operations.
- Great robustness, safety and resistance in the most aggressive environments.
- Monobloc construction that achieves a perfect seal (IP65 minimum tightness) and IK10 impact resistance.
- Preassembled body and cover.
- Corrosion resistant guaranteed.
- Standard screws in stainless steel AISI 316L.
- Multiple access option (cable lids on all four sides).



OPTIONS

- You can choose 3 different models cable gland boxes.
- We manufacture with waterproof and Atex & IECEx certifications.
- The terminal boxes can be used with increased safety protection mode "Ex e" including increased safety connection terminals or "Ex t" enclosure protection mode.
- Terminal boxes used with enclosure protection mode.
- These control stations may be used for connection of intrinsically safe circuits.
- 3D design and layout of custom components.
- The product offers the possibility to use Atex cable glands, as well as Roxtec cable entry systems.
- It is in stainless steel material grade AISI 304L, AISI 316L and polyester painted galvanized steel sheet.
- Materials available: AISI 304L and AISI 316L for maritime and corrosive environments.



ADVANTAGES

- Customized design and execution of cable gland's accessories.
- Available in stock for express delivery.
- Easily disassembly and be possible modify the design during its assembly.
- Optimized functionality thanks to a wide range of integrated equipment
- Polished finish on all sides.
- Simplify cable gland's opening, to perform our product.
- Quick delivery in the goods, amount of boxes in stock.
- Versatility of the product compare to other types of Terminal boxes, cause being customized adapts better to owner's needs.
- Robustness, security, guaranteed reliability.
- IECEx components already installed inside.
- Anti-corrosion protection guaranteed.
- Great safety and resistance in the most aggressive explosive environments thanks to the design and the materials used in its manufacture.

GLAND PLATE EX TERMINAL BOXES **TERBOX SERIES**

PROTECTION MODE

This enclosure is certified for use in potentially explosive atmospheres in zones 1, 2, 21 and 22 and may be used with increased safety protection mode "Ex e" including increased safety connection terminals or enclosure protection mode "Ex tb".

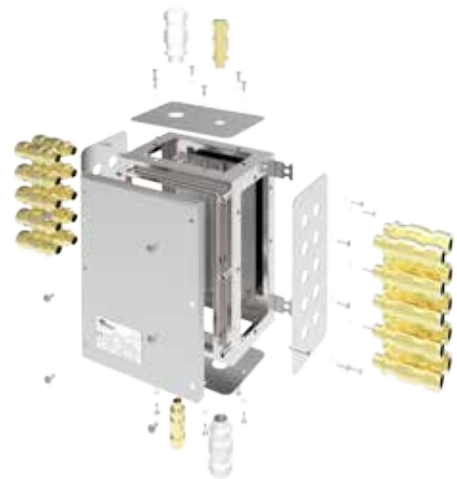
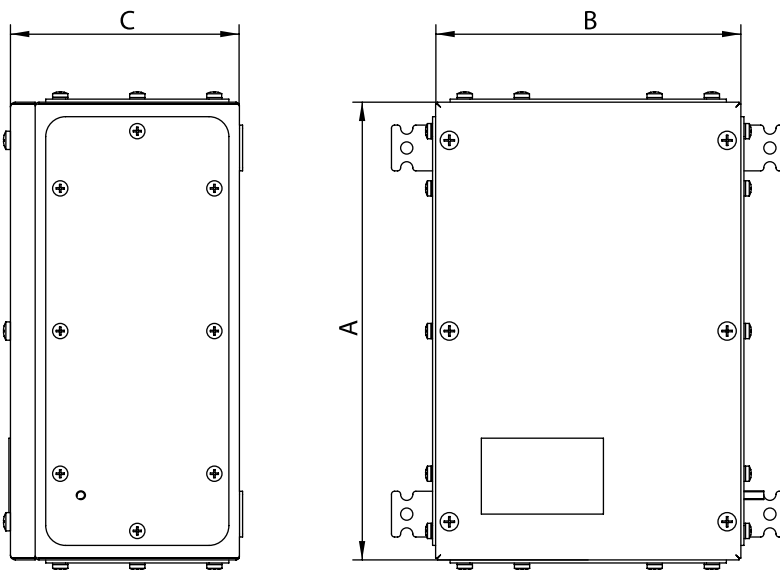
- Atex protection mode:
 - II2G Ex e IICT6/T5 Gb
 - II2D Ex tb IIIC T6/T5 Db
- IECEx protection mode:
 - Ex e IICT6/T5 Gb
 - Ex tb IIIC T6/T5 Db
 - Degree of resistance against impact IK10
 - IP65 protection

NORMATIVA

Atex & IECEx directive and regulations:

- Certificate of the envelope as a component:
 - LOM I4ATEX2082
- Atex directive 2014/34 / EU
- IP65 according to IEC Standard EN 60529.
- Degree of resistance against impact IK10 according to standard IEC 62262.
- EN 60079-7: 2007
- EN 60079-31: 2014
- EN-EN 60079-0: 2012
- Complies with RoHs regulations.

BLUEPRINT AND REFERENCES



REFERENCES	DIMENSIONS (mm)		
GLAND PLATE EXTERMINAL BOXES	HEIGHT -A-	WIDTH -B-	DEPTH -C-
GEOTB202012EX	200	200	120
GEOTB302015EX	300	200	150
GEOTB503015EX	500	300	150



Zones 1, 2, 21 and 22

PRE-ASSEMBLED STAINLESS STEEL TERMINAL BOXES **TERBOX SERIES** IP66



The terminal boxes or Atex Terbox are pre-assembled with 12 terminals (10 terminals 2,5mm, plus two ground terminals) installed on a numbered DIN rail, with 4 cable glands to choose from. Atex & IECEx certified and ready for use in explosive atmospheres zones 1, 2, 21 and 22, are robust and anti-corrosive.



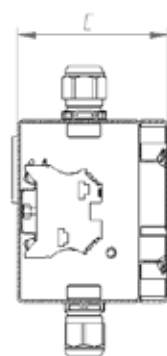
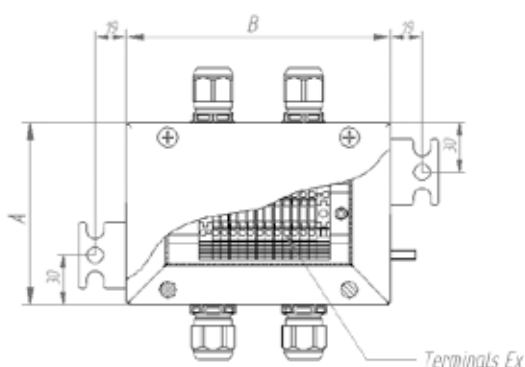
CHARACTERISTICS

- Pre-assembled Atex boxes made of stainless steel AISI 304L or AISI 316L.
- Installed terminals from Weidmüller brand.
- Access to the inside is facilitated thanks to the fastening of the cover with easy-to-install screws.
- External grounding of metric M6.
- Thickness 1.2mm (depending on boxes).



CERTIFICATION

- Terbox Certified:
 - LOM I4ATEX2082
- II 2G Ex eb IICT6/T5 Gb
- II 2D Ex tb IIIC T85°C/100°C Db
- Degree of resistance against impact IK10
- IP66 protection
- Working temperature (ambient): -25° a +60°C.



REFERENCE	DIMENSIONS (mm)						
IP66 TERBOX STAINLESS STEEL TERMINAL BOX	MEASUREMENTS (mm)			N° OF TERMINALS		CABLE GLANDS	
	HEIGHT -A-	WIDTH -B-	DEPTH -C-	CLAMPS	GROUND	UNIT	METRIC
GEOTB111690EX.001	110	160	90	10	2	4	M20





Zones I, 2, 21 and 22

ATEX ALUMINIUM TERMINAL BOXES

TERBOX SERIES IP66

Gives Cost and Time Savings



Examples



Terbox Series junction boxes are made from aluminum alloy and given an electrostatically applied polyester coating. Containing stainless steel particles which is then baked at 200 °C. This treatment ensures good UV as well as thermal stability, providing mechanical impact resistance and excellent resistance when exposed either to salt mist or to marine and other damp environments. Terbox Series junction boxes are usually installed in industrial plants where there is a risk of explosion and fire, classified as zones I, 2, 21, 22, they are mainly used as junction boxes and / or for routing cables to control rooms for analogue or digital signals and for control, monitoring and Signalling associated with equipment such as motors, pumps..., or for giving physical readings such as flow rate, temperature, pressure,... The thickness of its walls (7mm) means the Terbox Series is suitable for direct connection pipes and fittings featuring tapered threads.



APPLICATION

- Oil refineries
- Chemical and petrochemical plants
- Onshore plants
- Offshore plants
- Low temperatures
- Fuel depots
- Ships and shipbuilding



FOR MORE INFORMATION CLICK HERE



ATEX ALUMINIUM TERMINAL BOXES **TERBOX SERIES** IP66



TECHNICAL FEATURES

- 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.
- Mounting: cast aluminium feet for M6 screw.
- Earth screws: stainless steel on inside and outside of body complete with anti-rotation brackets.
- Coating: polyester epoxy RAL 7035 (light grey).
- Corrosion resistance: the standard of the aluminium has passed the tests required by standards EN60068-2-30 (hot/humid cycles) and EN60068-2-11 (salt mist tests).



MODELS

- Models from TBX (lightweight series), thinner walls. The body can only accommodate through holes with no threading
- Models from TBXG (heavy-duty series), extra-thick walls. The body can also accommodate threaded holes



TERMINALS



Atex Delvalle mounts in Terbox Series, Weidmüller brand terminals.



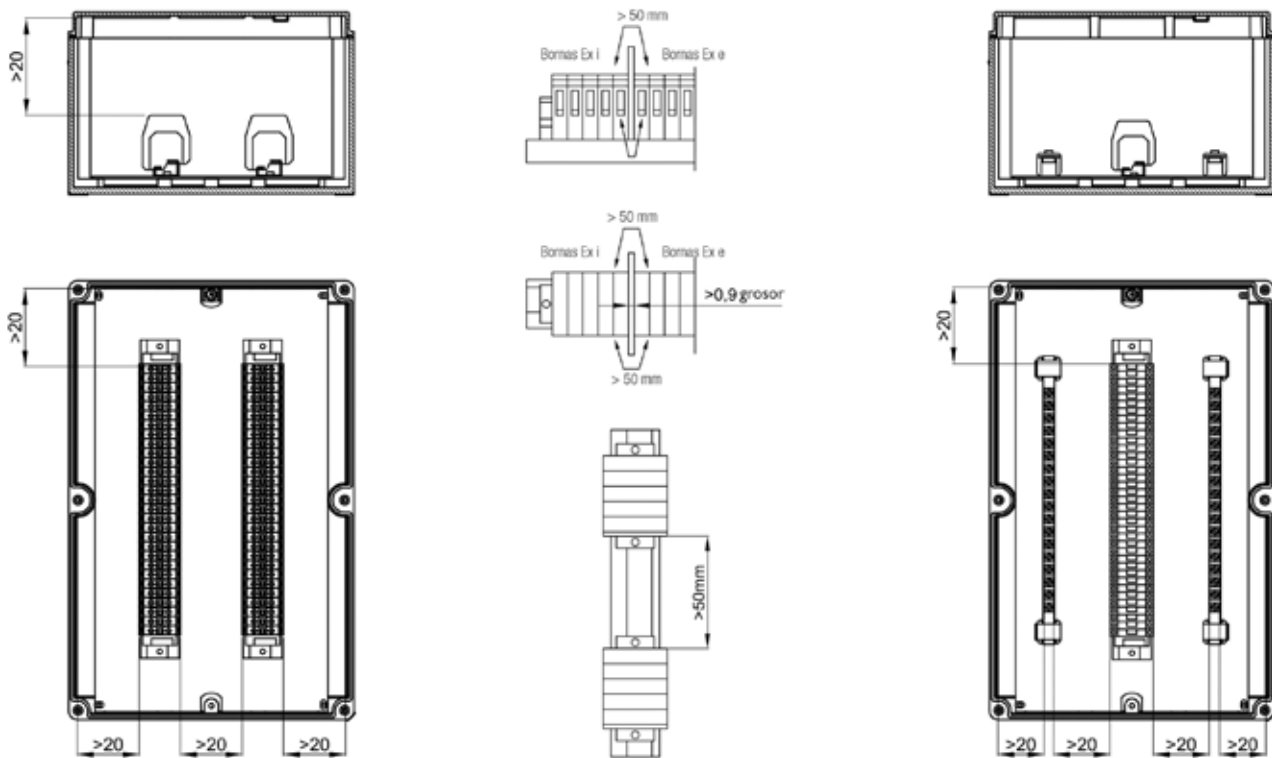
NORMS AND CERTIFICATES

- Zones I, 2, 21 and 22
- Degree protection IP66
- II 2GD Ex e IICT6/T5 Gb -
Ex tb IIICT85°C/T100°C Db IP66
- II 2GD Ex e ia IICT6/T5 Gb -
Ex tb ia IIICT85°C/T100°C Db IP66
- II 2GD Ex ia IICT6/T5 Gb -
Ex ia IIICT85°C/T100°C Db
- Operating temperature (ambience):
 $-40 \leq T_a \leq 40/55$
- Normes:
 - CENELEC EN 60079-0: 2012, EN 60079-7: 2007, EN 60079-11: 2012, EN 60079-31: 2009, EN 60079: 1991 and Directive European 2014/34/UE

ATEX ALUMINIUM TERMINAL BOXES **TERBOX SERIES** IP66

TERMINAL STRIPS WITH MINIMUM INSTALLATION DISTANCES

Only Atex Certified terminals are allowed inside the enclosures. Ex i rated terminals must be suitably labelled or coloured differently so they are clearly identifiable. Ex i cable entries must be suitably identified with either labelling or blue markings on cable glands or the enclosure's sides.



REFERENCES	MAXIMUM NUMBER OF TERMINALS HOUSED															
TYPE OF ENCLOSURE	TERMINAL CROSS-SECTIONAL AREA															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
TBX090907AL	11	7	6	5	-	-	-	-	-	-	-	-	-	-	-	-
TBX/TBXG111108AL	16	11	9	7	5	-	-	-	-	-	-	-	-	-	-	-
TBX/TBXG171108AL	32	22	19	14	11	9	-	-	-	-	-	-	-	-	-	-
TBX/TBXG141410AL	26	18	15	11	9	7	5	-	-	-	-	-	-	-	-	-
TBX202012AL	2x40	2x28	2x23	17	13	11	8	-	-	-	-	-	-	-	-	-
TBX/TBXG301410AL	69	48	40	30	24	20	14	-	-	-	-	-	-	-	-	-
TBX/TBXG302310AL	2x70	2x48	2x40	2x30	2x24	2x20	15	-	-	-	-	-	-	-	-	-
TBX/TBXG302318AL	2x70	2x48	2x40	2x30	2x24	2x20	15	15	13	11	-	-	-	-	-	-
TBX/TBXG473018AL	2x116	2x81	2x68	2x51	2x40	2x33	2x25	2x25	2x22	2x19	14	12	12	11	11	-
TBX623018AL	2x159	2x111	2x93	2x69	2x55	2x46	2x34	2x34	2x30	2x27	20	17	17	15	15	-
TBX606018AL	5x142	5x99	5x83	5x62	5x49	5x41	4x31	4x31	3x27	3x24	18	15	15	13	13	-

Ex. 2x22= 2 rows of 22 terminals (total 44 terminals). The maximum number of standard terminals refers to the mounting.

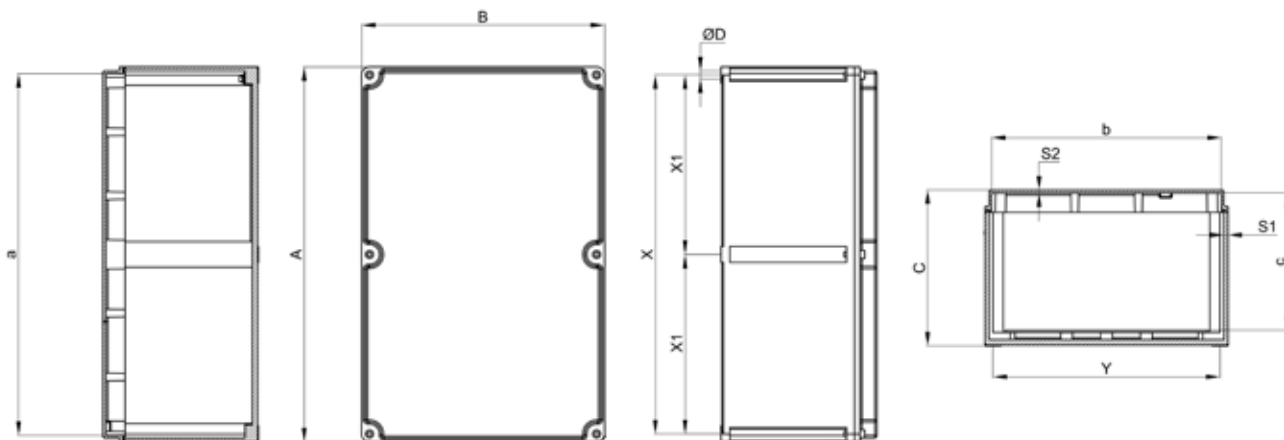
The data in the table are given as a rough guide only based solely on the size of the enclosures and the space taken up.



ATEX ALUMINIUM TERMINAL BOXES **TERBOX SERIES** IP66



BLUEPRINT AND DIMENSIONS



REFERENCES

REFERENCES	CHARACTERISTICS												
REFERENCES	EXT. DIMENSIONS (mm)			INT. DIMENSIONS (mm)					FIXATION				WEIGHT (KG)
	HEIGHT -A-	WIDTH -B-	DEPTH -C-	HEIGHT -A-	WIDTH -B-	DEPTH -C-	S1	S2	X	Y	X1	Ø D	
TBX090907AL	90	90	73	84	84	54	3	2,5	74	74	-	6,5	0,40
TBX111108AL	110	110	83	104	104	64	3	2,5	94	94	-	6,5	0,50
TBXG111108AL	110	110	83	96	96	64	7	2,5	94	94	-	6,5	0,75
TBX171108AL	170	110	83	164	104	65	3	2,5	154	94	-	6,5	0,80
TBXG171108AL	170	110	83	156	96	65	7	2,5	154	94	-	6,5	1,55
TBX141410AL	147	147	100	141	141	80	3	2,5	131	131	-	6,5	0,80
TBXG141410AL	147	147	100	133	133	80	7	2,5	131	131	-	6,5	1,40
TBX202012AL	200	200	120	192	192	98	4	3	180	180	-	6,5	1,70
TBX301410AL	305	147	110	296	138	90	4,5	3	285	127	-	6,5	2,00
TBXG301410AL	305	147	96	291	133	75	7	4	285	127	-	6,5	2,70
TBX302310AL	305	230	110	296	221	90	4,5	3	285	210	-	6,5	2,80
TBXG302310AL	305	230	100	291	216	75	7	4	285	210	-	6,5	3,40
TBX302318AL	305	230	190	296	221	165	4,5	3	285	210	-	6,5	3,50
TBXG302318AL	305	230	180	291	216	155	7	4	285	210	-	6,5	5,30
TBX473018AL	475	305	195	465	295	174	5	4	450	285	225	6,5	6,50
TBXG473018AL	475	305	195	461	294	174	7	4	450	285	225	6,5	8,90
TBX623018AL	625	305	195	613	293	174	6	5	605	285	302,5	6,5	11,3
TBX606018AL	600	600	205	584	584	177	10÷13	5	580	580	290	6,5	27,0



Zones I, 2, 2I and 22

PRE-ASSEMBLED ALUMINIUM TERMINAL BOX **TERBOX SERIES** IP66



The Terbox Aluminum Case is constructed of aluminum cast alloy and comes pre-assembled with 12 terminals (10 terminals, plus two grounds terminal) installed on numbered DIN rail, with 4 cable glands to choose from. Atex & IECEx certified and ready for use in explosive atmospheres zones I, 2, 2I and 22, are robust and anti-corrosive.

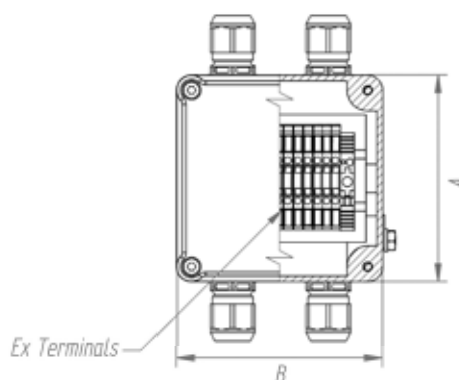
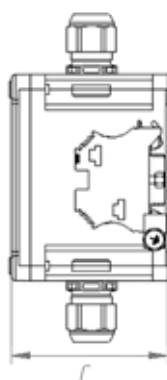
Being a stock product, the shipment is made on the same day that the order is received.

CHARACTERISTICS

- Fixing: Aluminum casting feet for M6 screw.
- Body and lid: made of aluminum alloy.
- Screws: stainless steel.
- Ground screws: stainless steel.
- Paint: RAL 7035 epoxy (gray).
- Installed terminals of Weidmüller brand.

CERTIFICATION

- II 2GD Ex e IICT6/T5 Gb -
Ex tb IICT85°C/TI 100°C Db IP66
- II 2GD Ex e ia IICT6/T5 Gb -
Ex tb ia IICT85°C/TI 100°C Db IP66
- II 2GD Ex ia IICT6/T5 Gb -
Ex ia IICT85°C/TI 100°C Db
- IP66 protection
- Working temperature: $-40 \leq T_a \leq 40/55$



REFERENCE	DIMENSIONS (mm)						
	MEASUREMENTS (mm)			N° OF TERMINALS		CABLE GLANDS	
IP66 TERBOX ALUMINIUM TERMINAL BOX	HEIGHT A	WIDTH B	DEPTH C	CLAMPS	GROUND	UNIT	METRIC
TBX141410AL001	147	147	100	10	2	4	M20



Zones I, 2, 21 and 22

GRP EX JUNCTION AND TERMINAL BOXES

TERBOX SERIES IP65

Gives Cost and Time Savings



Examples



The enclosures of terminal boxes are made of glass fibre reinforced polyester. All the metal elements are anti-corrosive rust proof. Concave-convex joints between the covers and bodies are designed to mount an air-foam silicone bar, which secure an IP65 degree of protection. Terminal boxes are used for dividing and connecting wires for various electrical apparatus and instruments in the circuits. Installation is certified for zones I, 2, 21 and 22.

Cables are made with Atex cable glands, either in polyamide, brass or stainless steel for corrosive areas.

TECHNICAL FEATURES

- Explosion protection.
- Zones I, 2, 21 and 22.
- Various sizes.
- Mounting included.
- Customized and flexible configurations.
- The enclosures of black terminal boxes are made of glass fibre reinforced polyester.
- International certification IECEx, Atex, TUV.

➔ **FOR MORE INFORMATION CLICK HERE**



GRP EX JUNCTION AND TERMINAL BOXES **TERBOX SERIES** IP65

NUMBER OF TERMINALS PER SIZE



Atex Delvalle mounts in Terbox Series, Phoenix Contact brand terminals. Delvalle offers users a wide range of accessories as ideal solutions for all possible tasks, even beyond the standard functions.



Visual separation
endcaps



Signalling



Fixation



Electrical power
supply



Electrical distribution



Testing



Specific functions, color
variations

REFERENCES	DIMENSIONS (mm)													
TERBOX GRP	HEIGHT - L -	WIDTH - W -	DEPTH - H -	RAILS (DIM.)	25 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	35 mm ²	50 mm ²	95 mm ²	150 mm ²	240 mm ²
TBX200 I GRP	122	122	96	1 (108)	14	12	10							
TBX201 I GRP	170	122	96	1 (145)	22	12	10							
TBX203 I GRP	220	134	96	1 (182)	26	22	16	12	10	8				
TBX2032 GRP	220	134	141	1 (182)	26	22	16	12	10	8				
TBX205 I GRP	275	160	96	1 (230)	40	34	25	20	17	13				
TBX2052 GRP	275	160	161	1 (230)	40	34	25	20	17	13				
TBX2053 GRP	275	160	226	1 (230)	40	34	25	20	17	13				
TBX2054 GRP	275	160	161	1 (230)	40	34	25	20	17	13				
TBX207 I GRP	352	234	96	1 (300)	50	41	31	25	21	18				
				2 (300)	100	82								
TBX2072 GRP	352	234	161	1 (300)	50	41	31	25	21	18				
				2 (300)	100	82								
TBX2073 GRP	352	234	231	1 (300)	50	41	31	25	21	18				
				2 (300)	100	82								
TBX2074 GRP	352	234	166	1 (300)	50	41	31	25	21	18				
				2 (300)	100	82								
TBX208 I GRP	352	352	96	1 (300)	50	41	32	26	22	18				
				2 (300)	100	82	64	52	44					
				3 (300)	150	123								
TBX2082 GRP	352	352	161	1 (300)	50	41	32	26	22	18	12	10	8	7
				2 (300)	100	82	64	52	44					
				3 (300)	150	123								
TBX2083 GRP	352	352	231	1 (300)	50	41	32	26	22	18	12	10	8	7
				2 (300)	100	82	64	52	44					
				3 (300)	150	123								
TBX2084 GRP	352	352	201	1 (300)	50	41	32	26	22	18	12	10	8	7
				2 (300)	100	82	64	52	44					
				3 (300)	150	123								
TBX2085 GRP	352	352	136	1 (300)	50	41	32	26	22	18	12	10	8	7
				2 (300)	100	82	64	52	44					
				3 (300)	150	123								
TBX2086 GRP	352	352	166	1 (300)	50	41	32	26	22	18	12	10	8	7
				2 (300)	100	82	64	52	44					
				3 (300)	150	123								
TBX2092 GRP	706	352	161	1 (300)	100	82	64	52	44	36	24	20	16	14
				2 (300)	200	164	128	104	88					
				3 (300)	300	246								
TBX2093 GRP	706	352	231	1 (300)	100	82	64	52	44	36	24	20	16	14
				2 (300)	200	164	128	104	88					
				3 (300)	300	246								
TBX2094 GRP	706	352	201	1 (300)	100	82	64	52	44	36	24	20	16	14
				2 (300)	200	164	128	104	88					
				3 (300)	300	246								

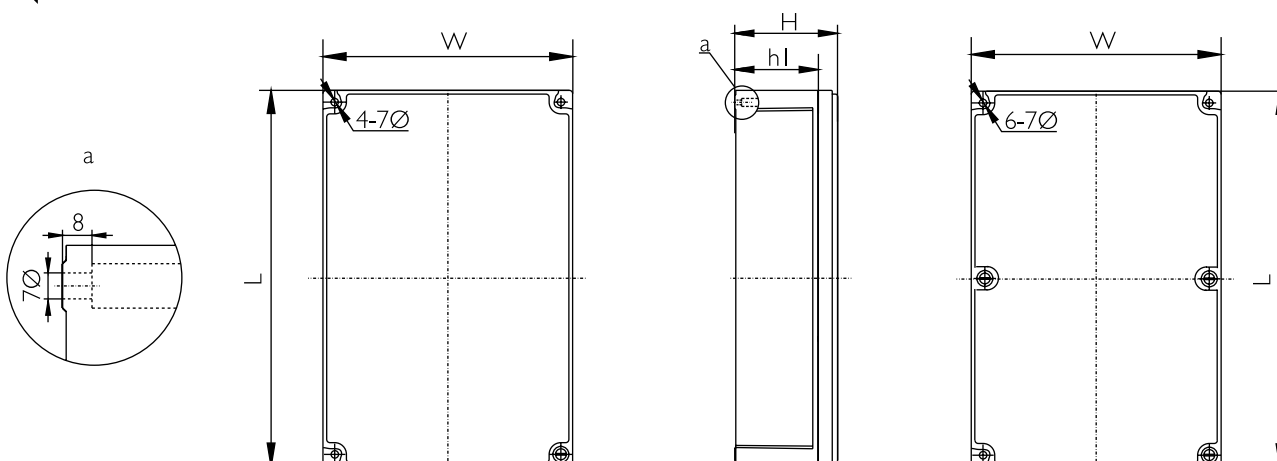


GRP EX JUNCTION AND TERMINAL BOXES **TERBOX SERIES** IP65

NORMS AND CERTIFICATES

- Zones I, 2, 2I and 22
- Degree protection IP65
- II 2GD Ex e II e II mCT6/T5 Gb
- Ex tD A2I T80°C/T95°C
- II IG Ex ia II A/IIB IIC T6/T5 Gb
- II ID Ex tD A20 IP65 T80°C/T95°C
- II 2G Ex ib IIA/II B/II C T6/T5 Gb
- II ID Ex ID A20 IP65 T80°C/T95°C
- Operating temperature (ambience):
 $-40 \leq T_a \leq 40/55$
- Directive Atex:
 - IEC60079-0-2007 EN60079-0-2009
 - IEC60079-7-2006 EN60079-7-2007
 - IEC60079-11-2006 EN60079-11-2007
 - IEC60079-26-2006 EN60079-26-2007
 - IEC61241-0-2004 EN61241-0-2006
 - IEC61241-1-2004 EN61241-1-2004

BLUEPRINT AND REFERENCES

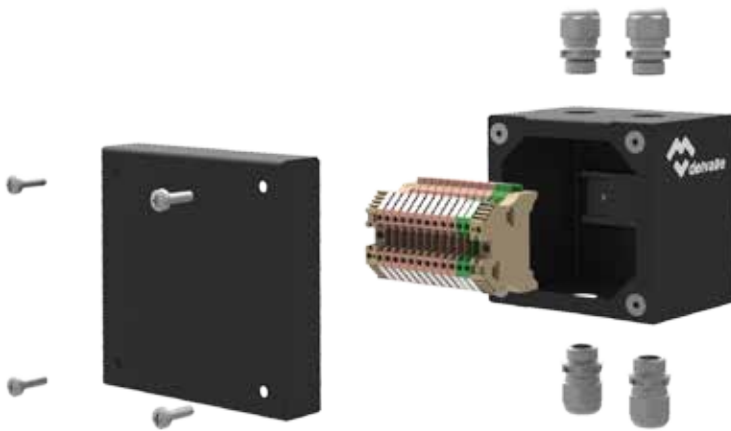


REFERENCES	CHARACTERISTICS				
REFERENCES	MEASUREMENTS (mm)				N° SCREWS
	HEIGHT L	WIDTH W	DEPTH H	DEPTH hl	
TBX2001 GRP	122	122	96	78	4
TBX2011 GRP	170	122	96	78	4
TBX2031 GRP	220	134	96	78	4
TBX2032 GRP	220	134	141	123	4
TBX2051 GRP	275	160	96	78	4
TBX2052 GRP	275	160	161	143	4
TBX2053 GRP	275	160	226	208	4
TBX2054 GRP	275	160	161	143	4
TBX2071 GRP	352	234	96	78	4
TBX2072 GRP	352	234	161	143	4
TBX2073 GRP	352	234	231	213	4
TBX2074 GRP	352	234	166	148	4
TBX2081 GRP	352	352	96	78	4
TBX2082 GRP	352	352	161	143	4
TBX2083 GRP	352	352	231	213	4
TBX2084 GRP	352	352	201	183	4
TBX2085 GRP	352	352	136	118	4
TBX2086 GRP	352	352	166	148	4
TBX2092 GRP	706	352	161	143	6
TBX2093 GRP	706	352	231	213	6
TBX2094 GRP	706	352	201	183	6



Zones I, 2, 21 and 22

PRE-ASSEMBLED POLYESTER GRP TERMINAL BOX **TERBOX SERIES** IP65



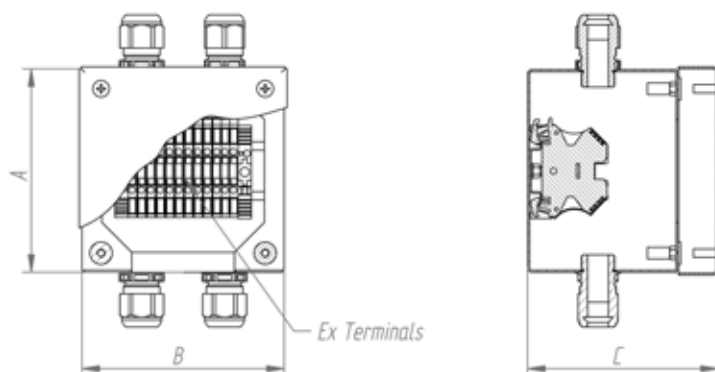
The terminal box or Atex GRP Terbox are pre-assembled with 12 terminals (10 terminals, plus two ground terminals) installed on numbered DIN rail, with 4 cable glands to choose from. Atex & IECEx certified and ready for use in explosive atmospheres zones I, 2, 21 and 22, are robust and anti-corrosive.

CHARACTERISTICS

- GRP enclosure in black color made of polyester, reinforced with fiber glass and with silicone gasket.
- Installed terminals from Phoenix Contact brand.
- International certifications IECEx, Atex, TUV.

CERTIFICATION

- IP65 protection
- II 2GD Ex e II e II mCT6/T5 Gb
- Ex tD A2I T80°C/T95°C
- II IG Ex ia II A/II B IIC T6/T5 Gb
- II ID Ex tD A20 IP65 T80°C/T95°C
- II 2G Ex ib IIA/II B/II C T6/T5 Gb
- II ID Ex ID A20 IP65 T80°C/T95°C
- Working temperature: $-40 \leq T_a \leq 40/55$



REFERENCE	DIMENSIONS (mm)						
IP65 TERBOX POLYAMIDE GRP TERMINAL BOX	MEASUREMENTS (mm)			N° OF TERMINALS		CABLE GLANDS	
	HEIGHT - A -	WIDTH - B -	DEPTH - C -	CLAMPS	GROUND	UNIT	METRIC
TBX2001 GRP001	122	122	96	10	2	4	M20

**Zones 1, 2, 21 and 22**

INCREASED SAFETY ENCLOSURE **LUXOREX SERIES** IP66



Examples



Luxorex Series Stands out for its Robustness and a Very Spacious Interior

The increased-safety, IP66 stainless steel cabinet Luxorex stands out for its robustness and very spacious interior.

Certified to be used for zones 1, 2, 21 and 22, it is greatly valued for its high security and resistance in even the harshest environments.

We can make Luxorex cabinets with any dimension as required by our customers.

➔ **FOR MORE INFORMATION CLICK HERE**



INCREASED SAFETY ENCLOSURE **LUXOREX SERIES** IP66

CHARACTERISTICS

- Made of stainless steel AISI 304L or AISI 316L and with a polished glossy surface finish.
- For use it in zones I, 2, 21 and 22 and to place Ex components terminals.
- Spacious interior that simplifies connection operations.
- Guaranteed anticorrosion protection.
- Safe and resistant in hard and aggressive environments.
- Monobloc shape giving perfect sealing and impact resistance.
- Pre-assembled body and door.
- Mass inserted allowing with external connection.
- Quarter-turn double-bit locks and stainless steel hinges.
- Option: Double access (both front and rear doors).
- Possible accessories: eyebolts, baseboards, perforated plates, cable gland caps, DIN rails...
- Polyurethane seal on the door -25° to ≤60°C.

NORMS AND CERTIFICATES

- II 2G Ex e IIC Gb and II 2D Ex tb IIIC Db IP66 according to directive 94/9/CE and standard EN 60079-0, EN 60079-7, EN 60079-31 and EN 61241-1.
- IP66 protection according to EN 60529.
- Maximum IK10 resistance, Norm IEC 62262.
- Certificate LOM I4Atex3026U.
- Certificate UL Nema 4x, I2, 3r and I (on request). N°File E342220.
- Polyurethane gasket: -25°C < Ta < 80°C.
- Silicone sponge gasket: -45°C < Ta < 135°C.
- Silicone foam gasket: -45°C < Ta < 155°C.



CE CERTIFICATE

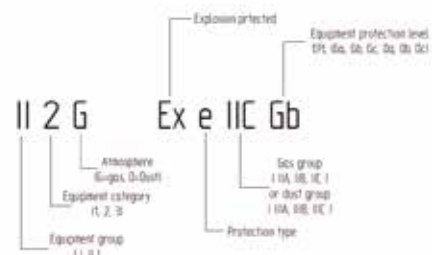


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Type: LX404025EX
LOM 14 ATEX 3028U
0163 
II 2G Ex e IIC Gb
II 2D Ex tb IIIC Db IP66

Serial nr: PV1516-01215-1A
IECEX LOM 16.0002U
Ex e IIC Gb
Ex tb IIIC Db IP66
Year: 2016

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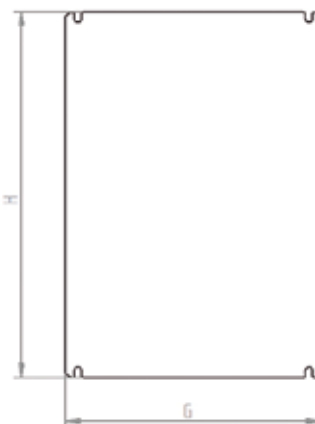
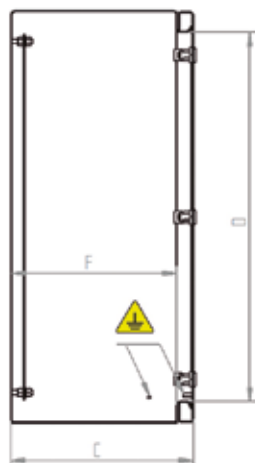
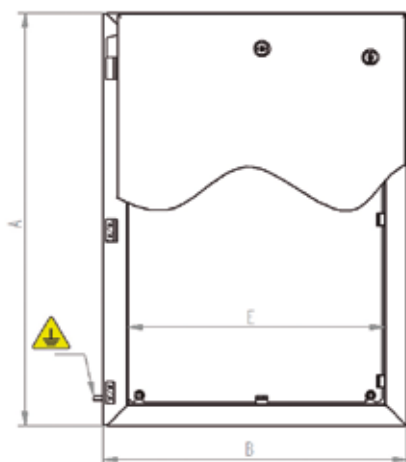




INCREASED SAFETY ENCLOSURE **LUXOREX SERIES** IP66



PLAN ONE DOOR



10
YEARS
GUARANTEE

STAINLESS
ANTICORROSIVE

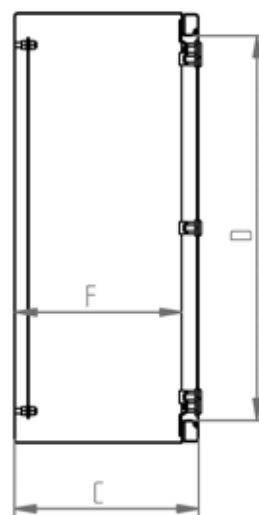
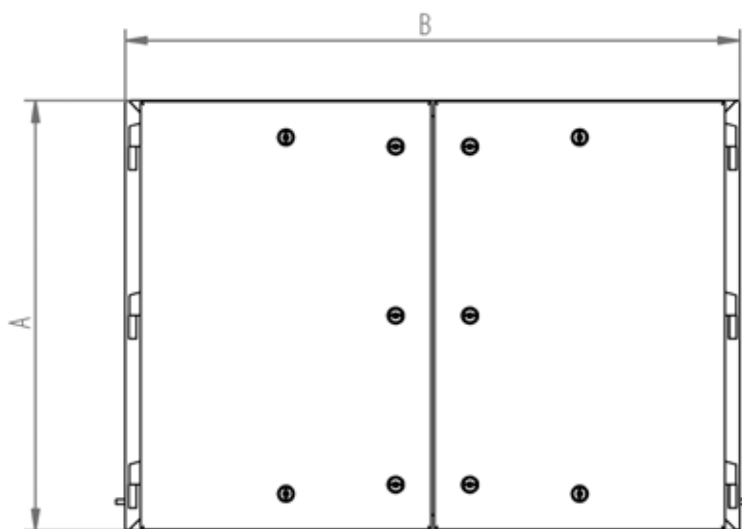
CUSTOM
MADE

5
YEARS
GUARANTEE

MECHANICAL
PARTS



PLAN TWO DOORS



10
YEARS
GUARANTEE

STAINLESS
ANTICORROSIVE

CUSTOM
MADE

5
YEARS
GUARANTEE

MECHANICAL
PARTS



INCREASED SAFETY ENCLOSURE **LUXOREX SERIES** IP66

REFERENCES ONE DOOR

ONE DOOR											
REFERENCES	HEIGHT - A -	WIDTH - B -	DEPTH - C -	USABLE INTERIOR HEIGHT - D -	USABLE INTERIOR WIDTH - E -	USABLE INTERIOR DEPTH - F -	LATERAL AREA MACHINABILITY		PANEL MEASURES - GXH -	WEIGHT (Kg)	VOLUME (m³)
							DOOR	SIDE			
LX302015EX	300	200	150	226	121	121	215,5x74,3	270x97,5	220x120	4,59	0,01
LX403020EX	400	300	150	326	221	121	243x174,3	370x97,5	420x320	7,85	0,02
LX504020EX	500	400	200	426	321	171	343x274,3	470x147,5	420x320	13,31	0,05
LX605025EX	600	500	250	526	421	221	443x374,3	570x197,5	520x420	19,93	0,09
LX606030EX	600	600	300	526	521	271	443x474,3	570x247,5	520x520	24,58	0,13
LX705030EX	700	500	300	626	421	271	543x374,3	670x247,5	620x420	24,12	0,13
LX8040(x)EX	800	400	300 to 800	726	321	271 to 771	638x274,3	770x247,5 to 747,5	720x520	22,87 to 41,47	0,12 to 0,30
LX8060(x)EX	800	600	300 to 800	726	521	271 to 771	638x474,3	770x247,5 to 747,5	720x520	31,31 to 52,55	0,17 to 0,43
LX8080(x)EX	800	800	300 to 1000	726	721	271 to 971	573x593	770x247,5 to 947,5	720x725	41,43 to 84,35	0,23 to 0,71
LX8010(x)EX	800	1000	300 to 1000	726	921	271 to 971	573x793	770x247,5 to 947,5	720x925	50,11 to 86,35	0,28 to 0,88
LX1040(x)EX	1000	400	300 to 1000	926	321	271 to 971	838x274,3	970x247,5 to 947,5	920x925	28,25 to 55,11	0,15 to 0,46
LX1060(x)EX	1000	600	300 to 1000	926	521	271 to 971	838x474,3	970x247,5 to 947,5	920x525	38,43 to 68,8	0,21 to 0,67
LX1080(x)EX	1000	800	300 to 1000	926	721	271 to 971	773x593	970x247,5 to 947,5	920x725	50,54 to 82,58	0,28 to 0,88
LX1010(x)EX	1000	1000	300 to 1000	926	921	271 to 971	773x793	970x247,5 to 947,5	920x925	60,97 to 97,29	0,35 to 1,09

(x) = 30, 40-50-60-70-80-90-10 for a depth 300, 400, 500, 600, 700, 800, 900 or 1000mm.
We can manufacture till 4mm thickness.

REFERENCES TWO DOORS

TWO DOORS											
REFERENCES	HEIGHT - A -	WIDTH - B -	DEPTH - C -	USABLE INTERIOR HEIGHT - D -	USABLE INTERIOR WIDTH - E -	USABLE INTERIOR DEPTH - F -	LATERAL AREA MACHINABILITY		PANEL MEASURES - GXH -	WEIGHT (Kg)	VOLUME (m³)
							DOOR	SIDE			
LX508020DEX	500	800	200	426	721	171	343x274,3	402,5x147,5	420x360	24,1	0,10
LX601025DEX	600	1000	250	526	921	221	443x374,3	502,5x197,5	520x460	36,21	0,18
LX601230DEX	600	1200	300	526	1121	271	443x474,3	502,5x247,5	520x560	44,75	0,25
LX701230DEX	700	1000	300	626	921	271	543x374,3	602,5x247,5	620x460	43,28	0,25
LX8080(x)DEX	800	800	300 to 800	726	721	271 to 771	643x274,3	702,5x 247,5 to 747,5	720x360	40,15 to 59,43	0,23 to 0,57
LX8012(x)DEX	800	1200	300 to 800	726	1121	271 to 771	643x474,3	702,5x 247,5 to 747,5	720x560	56,9 to 81	0,34 to 0,85
LX8016(x)DEX	800	1600	300 to 1000	726	1521	271 to 971	573x593	702,5x 247,5 to 947,5	720x760	77,11 to 117,39	0,45 to 1,39
LX8020(x)DEX	800	2000	300 to 1000	726	1921	271 to 971	573x793	702,5x 247,5 to 947,5	720x960	94,35 to 141,36	0,56 to 1,73
LX1080(x)DEX	1000	800	300 to 1000	926	721	271 to 971	843x274,3	902,5x 247,5 to 947,5	920x360	49,33 to 79,58	0,28 to 0,88
LX1012(x)DEX	1000	1200	300 to 1000	926	1121	271 to 971	843x474,3	902,5x 247,5 to 947,5	920x560	69,58 to 106,56	0,42 to 1,30
LX1016(x)DEX	1000	1600	300 to 1000	926	1521	271 to 971	773x593	902,5x 247,5 to 947,5	920x760	93,68 to 137,41	0,55 to 1,73
LX1020(x)DEX	1000	2000	300 to 1000	926	1921	271 to 971	773x793	902,5x 247,5 to 947,5	920x960	114,41 to 164,88	0,69 to 2,15

(x) = 30, 40-50-60-70-80-90-10 for a depth 300, 400, 500, 600, 700, 800, 900 or 1000mm.
This enclosure includes two mounting plates. We can manufacture till 4mm thickness.

**Zones 1, 2, 21 and 22**

INCREASED SAFETY ENCLOSURES **TRIBEX SERIES** IP66



Examples

**A Spacious Interior
with Great Capacity
Simplifies Connection
Operations**

The increased-safety, compact IP66 stainless steel cabinet Tribex is certified to be used in areas 1, 2, 21 & 22. It stands out for its high security and resistance in even the harshest environments.

A spacious interior with great capacity simplifies connection operations.

We can make Tribex cabinets to any dimension required by our customers.

➔ **FOR MORE INFORMATION CLICK HERE**



INCREASED SAFETY ENCLOSURES **TRIBEX SERIES** IP66

CHARACTERISTICS

- Made of stainless steel AISI 304L or AISI 316L and with a polished glossy surface finish.
- For use in zones 1, 2, 21 and 22 and to place Ex component terminals.
- Spacious interior that simplifies connection operations.
- Guaranteed anticorrosion protection.
- Safe and resistant in hard and aggressive environments.
- Monobloc shape giving perfect sealing and impact resistance.
- Earth stud inserted allowing with external connection.
- Quarter-turn double-bit locks and stainless steel hinges.
- Option: double access (front and rear doors).
- Possible accessories: eyebolt, baseboards and wall brackets.

NORMS AND CERTIFICATES

- II 2G Ex e IIC Gb and II 2D Ex tb IIIC Db IP66 according to directive 94/9/CE and standard EN 60079-0, EN 60079-7, EN 60079-31.
- IP66 protection according to EN 60529.
- Maximum IK10 resistance, Norm IEC 62262.
- Certificate LOM 14AteX3027U.
- Certificate UL Nema 4x, 12, 3r and I (on request). N°File E342220.
- Polyurethane gasket: $-25^{\circ}\text{C} < \text{Ta} < 80^{\circ}\text{C}$.
- Silicone sponge gasket: $-45^{\circ}\text{C} < \text{Ta} < 135^{\circ}\text{C}$.
- Silicone foam gasket: $-45^{\circ}\text{C} < \text{Ta} < 155^{\circ}\text{C}$.



CE CERTIFICATE



Type: TB404025EX
LOM 14 ATEX 3027U
0163 Ex
II 2G Ex e IIC Gb
II 2D Ex tb IIIC Db IP66

Serial nr: PV1516-01215-1A
IECEx LOM 16.0003U
Ex e IIC Gb
Ex tb IIIC Db
Year: 2016

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Type: TB404025EX
LOM 14 ATEX 3027U
0163 Ex
II 2G Ex e IIC Gb
IP66

Serial nr: PV1516-01215-1A
IECEx LOM 16.0003U
Ex e IIC Gb
Year: 2016

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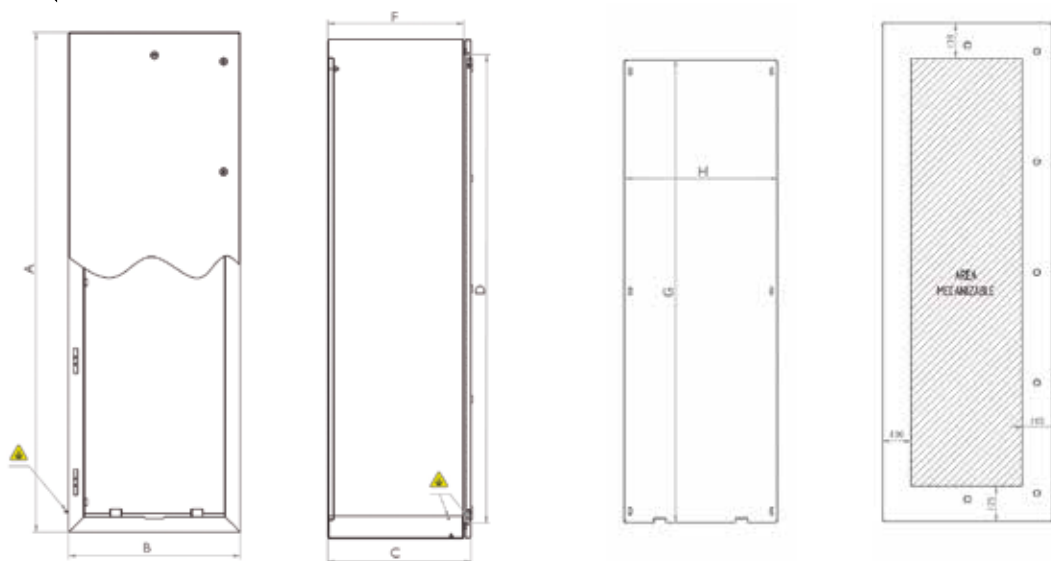
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atex@atexdelvalle.com



INCREASED SAFETY ENCLOSURES **TRIBEX SERIES** IP66



PLAN ONE DOOR



10
YEARS
GUARANTEE

STAINLESS
ANTICORROSIVE

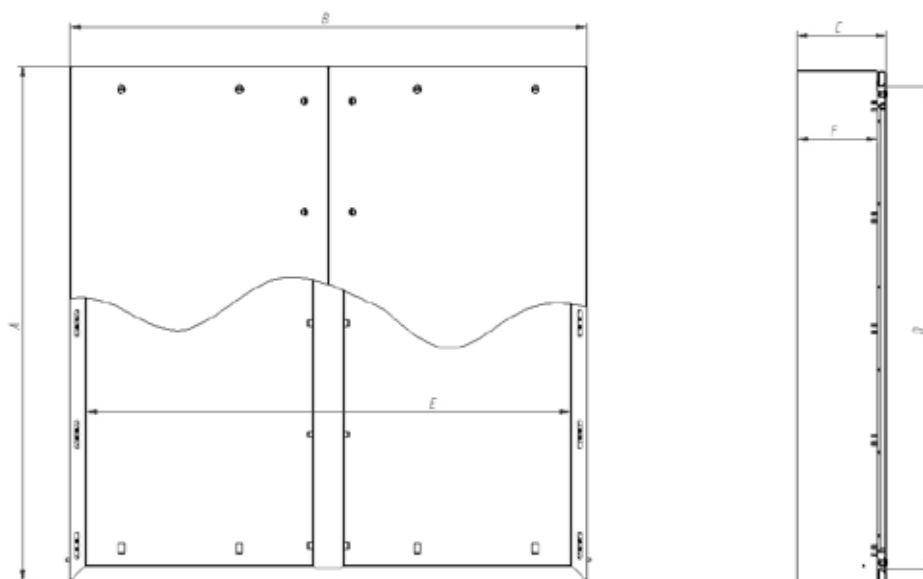
CUSTOM
MADE

5
YEARS
GUARANTEE

MECHANICAL
PARTS



PLAN TWO DOORS



10
YEARS
GUARANTEE

STAINLESS
ANTICORROSIVE

CUSTOM
MADE

5
YEARS
GUARANTEE

MECHANICAL
PARTS



INCREASED SAFETY ENCLOSURES **TRIBEX SERIES** IP66

REFERENCES ONE DOOR

ONE DOOR									
REFERENCES	HEIGHT - A -	WIDTH - B -	DEPTH - C -	USABLE INTERIOR HEIGHT - D -	USABLE INTERIOR WIDTH - E -	USABLE INTERIOR DEPTH - F -	LATERAL AREA MACHINABILITY		PANEL MEASUREMENTS - GXH -
							DOOR	SIDE	
TBI260(x)EX	1200	600	200 to 1000	1116	564	172 to 872	1003x439	1170x145 to 945	1070x470
TBI280(x)EX	1200	800		1116	746		933x573	1170x145 to 945	1070x670
TBI210(x)EX	1200	1000		1116	946		933x773	1170x145 to 945	1070x870
TBI660(x)EX	1650	600		1566	546		1453x439	1620x145 to 945	1520x470
TBI680(x)EX	1650	800		1566	746		1373x573	1620x145 to 945	1520x670
TBI610(x)EX	1650	1000		1566	946		1373x773	1620x145 to 945	1520x870
TBI860(x)EX	1800	600		1716	546		1603x439	1770x145 to 945	1670x470
TBI880(x)EX	1800	800		1716	746		1533x573	1770x145 to 945	1670x670
TBI810(x)EX	1800	1000		1716	946		1533x773	1770x145 to 945	1670x870
TB2060(x)EX	2000	600		1916	546		1803x439	1970x145 to 945	1870x470
TB2080(x)EX	2000	800		1916	746		1733x573	1970x145 to 945	1870x670
TB2010(x)EX	2000	1000		1916	946		1733x773	1970x145 to 945	1870x870
Version: Regulations UL		Add "UL" to the reference. Ex. "TBX1260(x)EXUL"							

(x) = 20, 40-50-60-70-80-90-10 for a depth 200, 400, 500, 600, 700, 800, 900 or 1000mm.

Can be manufactured up to 4mm thick.

REFERENCES TWO DOORS

TWO DOORS									
REFERENCES	HEIGHT - A -	WIDTH - B -	DEPTH - C -	USABLE INTERIOR HEIGHT - D -	USABLE INTERIOR WIDTH - E -	USABLE INTERIOR DEPTH - F -	LATERAL AREA MACHINABILITY		PANEL MEASUREMENTS - GXH -
							DOOR	SIDE	
TBI280(x)DEX	1200	800	200 to 1000	1090	690	172 to 872	840x155	1170x157 to 957	1070x735
TBI212(x)DEX	1200	1200		1090	1090		940x355	1170x157 to 957	1070x1135
TBI216(x)DEX	1200	1600		1090	1490		941x555	1170x157 to 957	1070x1535
TBI220(x)DEX	1200	2000		1090	1890		940x755	1170x157 to 957	1070x1935
TBI680(x)DEX	1650	800		1540	690		1390x155	1620x157 to 957	1520x735
TBI612(x)DEX	1650	1200		1540	1090		1390x355	1620x157 to 957	1520x1135
TBI616(x)DEX	1650	1600		1540	1490		1390x555	1620x157 to 957	1520x1535
TBI620(x)DEX	1650	2000		1540	1890		1390x755	1620x157 to 957	1520x1935
TBI880(x)DEX	1800	800		1690	690		1540x155	1770x157 to 957	1670x735
TBI812(x)DEX	1800	1200		1690	1090		1540x355	1770x157 to 957	1670x1135
TBI816(x)DEX	1800	1600		1690	1490		1540x555	1770x157 to 957	1670x1535
TBI820(x)DEX	1800	2000		1690	1890		1540x755	1770x157 to 957	1670x1935
TB2080(x)DEX	2000	800		1890	690		1750x155	1970x157 to 957	1870x735
TB2012(x)DEX	2000	1200		1890	1090		1740x355	1970x157 to 957	1870x1135
TB2016(x)DEX	2000	1600		1890	1490		1740x555	1970x157 to 957	1870x1535
TB2020(x)DEX	2000	2000		1890	1890		1740x755	1970x157 to 957	1870x1935
Version: Regulations UL		Add "UL" to the reference. Ex. "TBX1260(x)EXUL"							

(x) = 20, 40-50-60-70-80-90-10 for a depth 200, 400, 500, 600, 700, 800, 900 or 1000mm.

This enclosure includes two mounting plates. We can manufacture till 4mm thickness.

**Zones I, 2, 21 and 22**

ATEX JUNCTION BOX **GEOEX SERIES** IP66



Example

Anticorrosion Protection Guaranteed

The increased-safety IP66 Geoex junction box is made in either AISI 304L or 316L stainless steel.

Certified to be used in zones I, 2, 21 & 22, it is greatly valued for its high security and resistance even in the harshest environments.

We can make it to any dimension required by our customers, up to a maximum size of 1000x1000x1000mm.

➔ **FOR MORE INFORMATION CLICK HERE**



ATEX JUCTION BOX **GEOEX SERIES** IP66

CHARACTERISTICS

- Made of stainless steel AISI 304L or AISI 316L and with a polished glossy surface finish.
- For use it in zones 1, 2, 21 and 22 and to place Ex components terminals.
- Spacious interior that simplifies connection operations.
- Guaranteed anticorrosion protection.
- Safe and resistant in hard and aggressive environments.
- Monobloc shape giving perfect sealing and impact resistance.
- Pre-assembled body and door.
- Mass inserted allowing with external connection.
- Quarter-turn double-bit locks and stainless steel hinges.
- Option: Double access (both front and rear doors).
- Possible accessories: eyebolts, baseboards, perforated plates, cable gland caps, DIN rails...
- Option hinges.
- Polyurethane seal on the door -25° to ≤60°C.
- LDPE hinge, plugs -25° to ≤60°C.

NORMS AND CERTIFICATES

- II2G Ex e IIC Gb and II2D Ex tb IIIC Db IP66 according to directive 94/9/CE and standard EN 60079-0, EN 60079-7, EN 60079-31
- IP66 protection according to EN 60529.
- Certificate LOM I4Atex3028U.
- Maximum IK10 resistance, Norm IEC 62262.
- Certificate UL Nema 4x, 12, 3r and I (on request). N°File E342220.
- Polyurethane gasket: -25°C < Ta < 80°C.
- Silicone sponge gasket: -45°C < Ta < 135°C.
- Silicone foam gasket: -45°C < Ta < 155°C.



CE CERTIFICATE

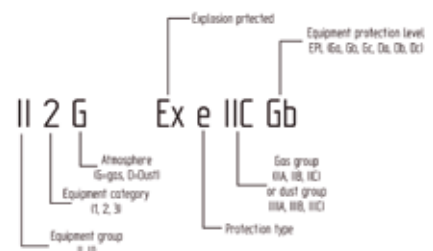


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Type: GEO404025EX
LOM 14 ATEX 3028U
0163
II 2G Ex e IIC Gb
II 2D Ex tb IIIC Db IP66

Serial nr: PV1516-01215-1A
IECEx LOM 16.0004U
Ex e IIC Gb
Ex tb IIIC Db IP66
Year: 2016

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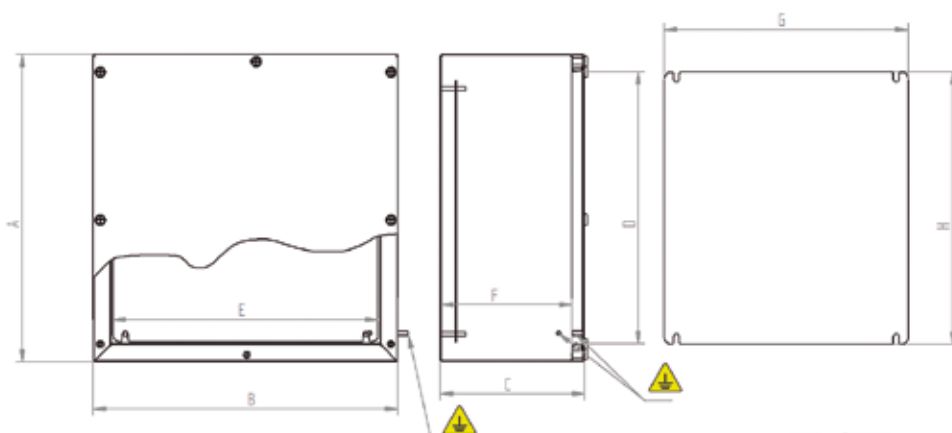




ATEX JUCTION BOX **GEOEX SERIES** IP66



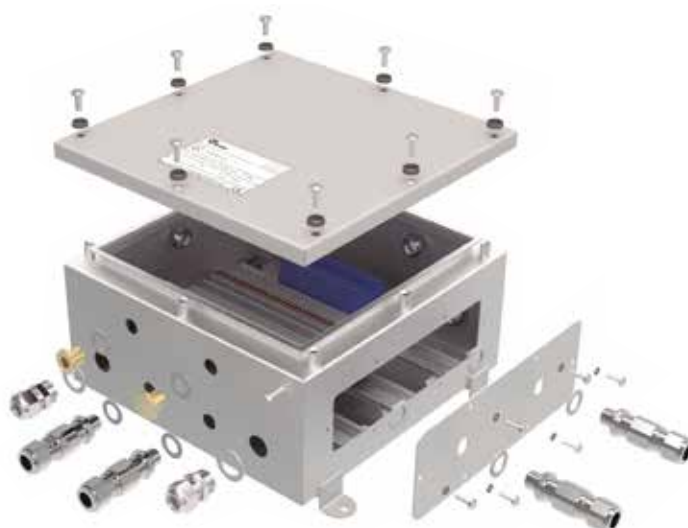
PLAN



STAINLESS
ANTICORROSIVE



MECHANICAL
PARTS



REFERENCES

DIMENSIONS (mm)											
REFERENCES	HEIGHT -A-	WIDTH -B-	DEPTH -C-	HIGH INTERIOR USEFUL -D-	INTERNAL WIDTH USEFUL -E-	INTERNAL FUND USEFUL -F-	LATERAL AREA MACHINABILITY		PANEL MEASURES -GXH-	WEIGHT (Kg)	VOLUME (m³)
							DOOR	SIDE			
GEO909080EX	90	90	80	39,6	39,6	61,4	26x26	60x28,8		0,71	0,001
GEO209080EX	200			149,6			136x26	170x28,8	144x34	1,32	0,003
GEO289080EX	280	90	80	229,6	39,6	61,4	216x26	250x28,8	224x34	1,6	0,003
GEO101615EX	100	160	150	49,6	109,6	131,4	36x96	70x98,8	44x104	1,55	0,004
GEO202015EX	200	200		149,6	149,6		136x136	170x98,8	144x144	2,78	0,009
GEO202520EX	200	250	200	149,6	199,6	181,4	136x186	170x148	144x194	3,7	0,015
GEO303020EX	300	300		249,6	249,6		236x236	270x148	244x244	5,77	0,025
GEO304030EX	300	400	300	249,6	349,6	281,4	236x336	270x248	244x344	8,51	0,047
GEO404030EX	400			349,6			336x336	370x248	344x344	10,47	0,061
GEO606040EX	600	600	400	549,6	549,6	381,4	536x536	570x348	544x544	22,05	0,171
GEO808040EX	800	800		749,6	749,6		673x673	770x348	744x744	36,39	0,296
GEO101050EX	1000	1000	500	949,6	949,6	481,4	873x873	970x448	944x944	64,16	0,562
GEO101070EX	1000	1000	700	949,6	949,6	681,4	873x873	970x649	944x945	76	0,774
GEO101080EX	1000	1000	800	949,6	949,6	781,4	873x873	970x742	944x946	80	0,880
GEO101010EX	1000	1000	1000	946,6	949,6	981,4	873x873	970x942	944x947	90	1,093



**Zones 1, 2, 21 and 22**

CONTROL DESK

ATEX & IECEX



Examples



Comfortable, Fast and Useful

This ATEX & IECEx desk allows the control of many ATEX & IECEx components and devices from control panel thanks to the easy control with selectors, push buttons, buttons with key, viewers, red mushrooms, alarms, light signals...

Its use is for industries zones with explosion risk, oil & gas and petro chemical industries.

It's based on the component placement, which is designed according to the customer needs to get a desk with a high view, comfort and control. Every component has ATEX & IECEx certification.

This ATEX & IECEx desk has been designed specifically as an anticorrosion and waterproof desk, made of stainless steel AISI 304L or AISI 316L, allowing its use in zones with high explosion or corrosion risk. Besides, it guarantees an IP66 protection.

**FOR MORE INFORMATION CLICK HERE**



CONTROL DESK

ATEX & IECEx



FEATURES

- This ATEX & IECEx desk is made of stainless steel AISI 304L.
- The control panel components (selectors, push buttons, viewers...) can be adjusted to their projects in explosive atmospheres.
- The current range is between 0-16A.
- Every panel component has the IP66 protection.



ADVANTAGES

- Configurations can be made following the customer's requirements, being able to choose as many control components as needed. This way can be controlled many machines.
- This desk is an easy and comfortable way to work and control more than one machine or section.
- Easy opening with doors and fasteners.
- The console has doors which open laterally up to 120° and is opened smoothly and easily than to the shock absorbers.
- This desk guarantees worker security because it controls the machines remote, making impossible to be injured by one of the machines.
- Really long useful life, about 100.000 work hours, and it give the machines a longer useful life too.



OPTIONS

- There are many control components.
- All control which can be installed: push buttons, selectors, viewers (ammeter and voltmeter), red mushrooms, sound and light alarms.
- It's possible to configure ATEX & IECEx desks or control panels.
- This desk can be made of stainless steel AISI 316L.



PROTECTION MODE

This ATEX & IECEx desk is certified for use in potentially explosive atmospheres in 1, 2, 21 and 22 zones.

- ATEX mark:
 - II2G Ex d e IICT6/T5 Gb
 - II2D Ex tb IICT85°C /T100°C Db
- IECEx mark:
 - Ex d e IICT6/T5 Gb
 - Ex tb IICT85°C/T100°C Db



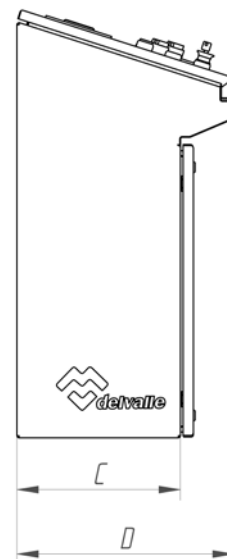
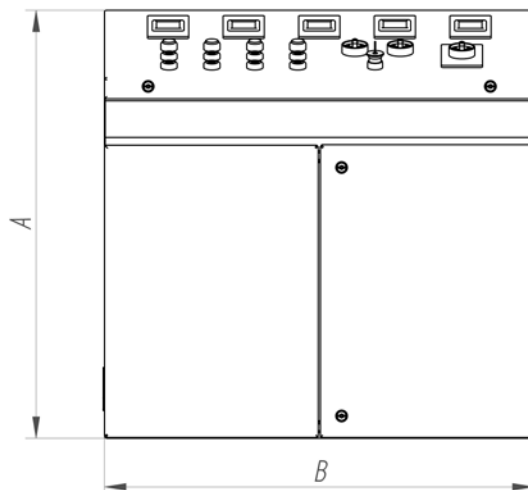
CONTROL DESK

ATEX & IECEx

CERTIFICATION

- Atex directive and regulation:
 - Atex directive 2014/34/EU
 - EN 60079-0:2012
 - EN 60079-1:2007
 - EN 60079-7:2015
 - EN 60079-31:2010
- IECEx regulation:
 - EC 60079-0:2011
 - IEC 60079-1:2006
 - IEC 60079-7:2015
 - IEC 60079-31:2013
- Enclosure regulation:
 - IP regulation (IP65): IEC 60529
 - IK regulation (IK10): IEC 62262
- Low voltage directive and regulation:
 - Directive 2014/35/UE
 - EN 61439-1:2011
 - EN 61439-2:2011

PLAN



REFERENCES

REFERENCES	DIMENSIONS (mm)				
IT DEPENDS OF THE DOORS NUMBER OF DOORS AND "B" VALUE	DOORS	A	B	C	D
CD/2/600	2	1000	600	380	500
CD/2/800			800		
CD/3/1000	3	1000	1000	380	500
CD/3/1200			1200		
CD/3/1400			1400		
CD/3/1600			1600		

**Zones 1, 2, 21 and 22**

RACK ENCLOSURE 19" **LUXOREX SERIES** IP66

**Enclosure System Murals
Ample Capacity
for Mounting Systems Rack 19"**



Example

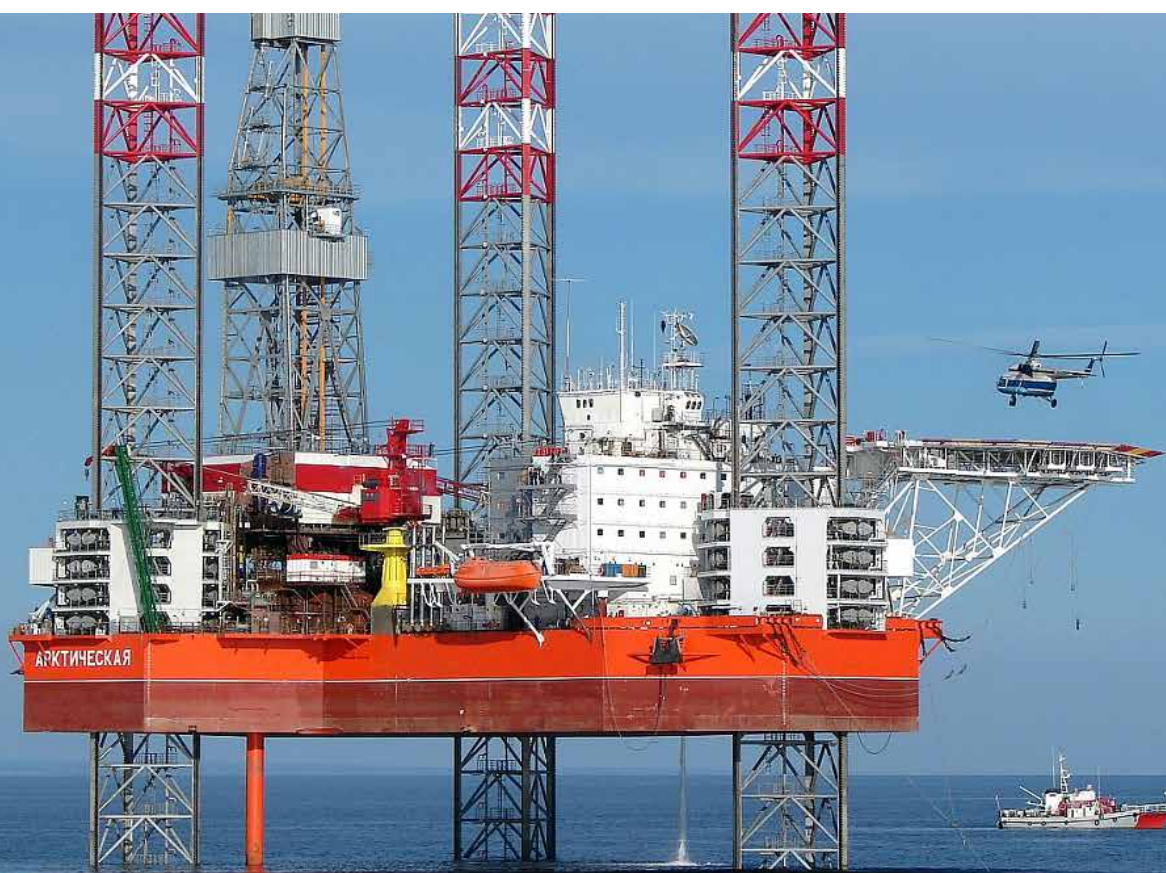
The increased-safety Rack 19" enclosure IP66 stainless steel cabinet Luxorex, stands out for its robustness and very spacious interior.

Certified to be used for zones 1, 2, 21 & 22, it is greatly valued for its high security and resistance in even the harshest environments.

We can make Luxorex cabinets with any dimension required by our customers.



FOR MORE INFORMATION CLICK HERE



RACK ENCLOSURE 19" LUXOREX SERIES IP66

CHARACTERISTICS

- Rack 19" enclosures. Variable rack depth and height.
- Made of stainless steel AISI 304L or AISI 316L and with a polished glossy surface finish.
- For use in zones 1, 2, 21 and 22 and to place Ex component terminals.
- Spacious interior that simplifies connection operations.
- Guaranteed anticorrosion protection.
- Safe and resistant in hard and aggressive environments.
- Pre-assembled body and door.
- Monobloc shape giving perfect sealing and impact resistance.
- Earth stud inserted allowing external connection.
- Quarter-turn double-bit locks and stainless steel hinges.
- Option: double access (both front and rear doors).
- Possible accessories: eyebolts, baseboards, perforated plates, cable gland caps, DIN rails...
- Polyurethane seal on the door -25° to ≤60°C.

NORMS AND CERTIFICATES

- II2G Ex e IIC Gb and II2D Ex tb IIIC Db IP66 according to directive 94/9/CE and standar EN 60079-0, EN 60079-7, EN 60079-31 and EN 61241-1.
- IP66 protection according to EN 60529.
- Maximum IK10 resistance, Norm IEC 62262.
- Certificate LOM I4ATEX3026U.
- Certificate UL Nema 4x, 12, 3r and I (on request). N°File E342220.



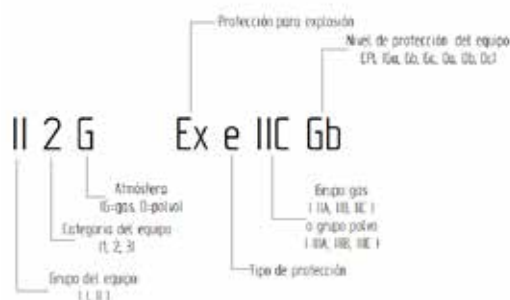
CE CERTIFICATE



+34 945 601 381
Paseo el Prado 6
Oyón 01320 (Spain)
atex@atexdelvalle.com
www.atexdelvalle.com

Type: LXYYYYYEX
0163
II 2G Ex e IIC Gb
II 2D Ex tb IIIC Db IP66

Serial nr: PVXXXX-XXXX-X
Year: 20XX
-25°C<Ta<+60°C
LOM 14 ATEX 3026U

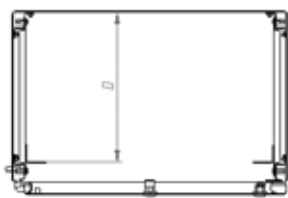
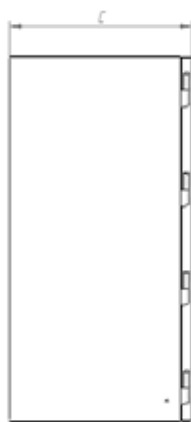
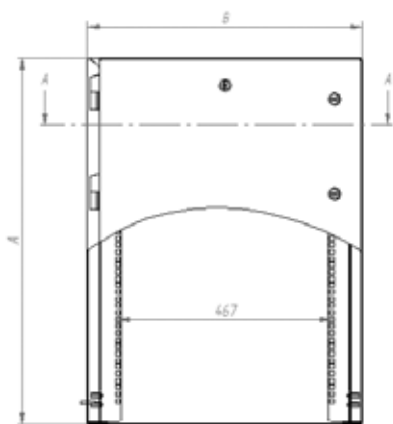




RACK ENCLOSURE 19" LUXOREX SERIES IP66



PLAN



CORTE A-A



STAINLESS
ANTICORROSIVE



MECHANICAL
PARTS



REFERENCES

RACK ENCLOSURE 19" LUXOREX					
REFERENCES	U's	A (mm)	B (mm)	C (mm)	D (mm)
LX506020EXRK10U	10	500	600	200	126
LX506040EXRK10U	10	500	600	400	326
LX506060EXRK10U	10	500	600	600	526
LX506080EXRK10U	10	500	600	800	726
LX706040EXRK14U	14	700	600	400	326
LX706060EXRK14U	14	700	600	600	526
LX706080EXRK14U	14	700	600	800	726
LX706010EXRK14U	14	700	600	1000	926
LX806020EXRK16U	16	800	600	200	126
LX806040EXRK16U	16	800	600	400	326
LX806060EXRK16U	16	800	600	600	526
LX806080EXRK16U	16	800	600	800	726
LX806010EXRK16U	16	800	600	1000	926
LX106020EXRK22U	22	1000	600	200	126
LX106040EXRK22U	22	1000	600	400	326
LX106060EXRK22U	22	1000	600	600	526
LX106080EXRK22U	22	1000	600	800	726
LX106010EXRK22U	22	1000	600	1000	926

**Zones I, 2, 21 and 22**

RACK ENCLOSURE 19" **TRIBEX SERIES** IP66



Example

Enclosure Systems Murals Ample Capacity for Mounting Systems Rack 19"

The increased-safety rack 19" compact IP66 stainless steel cabinet Tribex, is certified to be used in areas I, 2, 21 & 22. It stands out for its high security and resistance in even the harshest environments.

A spacious interior with great capacity simplifies connection operations.

Rack 19" enclosures. The racks that are mounted can be moved in depth.

We can make Tribex cabinets to any dimension required by our customers.

The cabinets can be up to 4mm thick.

**FOR MORE INFORMATION CLICK HERE**



RACK ENCLOSURE 19" TRIBEX SERIES IP66

CHARACTERISTICS

- Rack 19" enclosures. Variable rack depth and height.
- Made of stainless steel AISI 304L or AISI 316L and with a polished glossy surface finish.
- For use in zones 1, 2, 21 and 22 and to place Ex components terminals.
- Spacious interior that simplifies connection operations.
- Safe and resistant in hard and aggressive environments.
- Guaranteed anticorrosion protection.
- Monobloc shape giving perfect sealing and impact resistance.
- Mass inserted allowing with external connection.
- Quarter-turn double-bit locks and stainless steel hinges.
- Option: double access (front and rear doors).
- Possible accessories: eyebolt, baseboards and wall brackets.

NORMS AND CERTIFICATES

- II2G Ex e IIC Gb and II2D Ex tb IIIC Db IP66 according to directive 94/9/CE and standard EN 60079-0, EN 60079-7, EN 60079-31.
- IP66 protection according to EN 60529.
- Maximum IK10 resistance, Norm IEC 62262.
- Certificate LOM I4ATEX3027U.
- Certificate UL Nema 4x, 12, 3r and I (on request). N°File E342220.
- Polyurethane seal on the door -25° to ≤60°C.
- LDPE hinge, plugs -25° to ≤60°C.



CE CERTIFICATE



Type: TBYYYYYYEX
0163 II 2G
Ex e IIC Gb
IP66

+34 945 601 381
Paso el Prao 6
Oyón 01320 (Spain)
atex@atexdelvalle.com
www.atexdelvalle.com

Serial nr: PVXXXX-XXXX-X
Year: 20XX
-25°C<Ta<+60°C
LOM 14 ATEX 3027U



Type: TBYYYYYYEX
0163 II 2G Ex e IIC Gb
II 2D Ex tb IIIC Db IP66

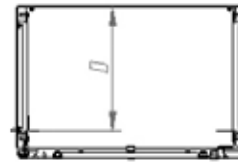
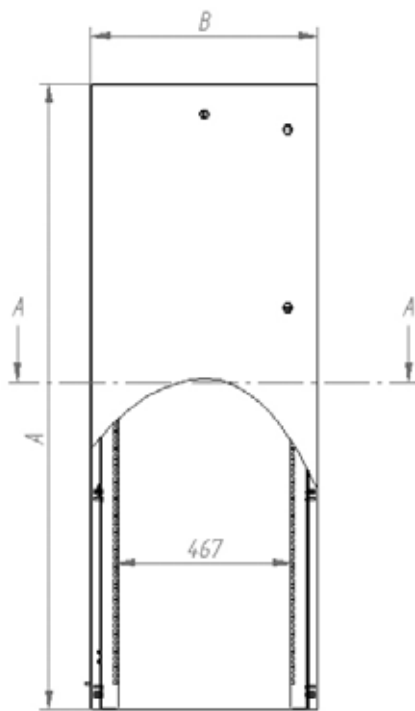
+34 945 601 381
Paso el Prao 6
Oyón 01320 (Spain)
atex@atexdelvalle.com
www.atexdelvalle.com

Serial nr: PVXXXX-XXXX-X
Year: 20XX
-25°C<Ta<+60°C
LOM 14 ATEX 3027U



RACK ENCLOSURE 19" **TRIBEX SERIES** IP66

PLAN



CORTE A-A

STAINLESS
ANTICORROSIVEMECHANICAL
PARTS

REFERENCES

RACK ENCLOSURE 19" TRIBEX					
REFERENCES	U's	A (mm)	B (mm)	C (mm)	D (mm)
TB126020EXRK26U	26	1200	600	200	126
TB126040EXRK26U	26	1200	600	400	326
TB126060EXRK26U	26	1200	600	600	526
TB126080EXRK26U	26	1200	600	800	726
TB166040EXRK36U	36	1650	600	400	326
TB166060EXRK36U	36	1650	600	600	526
TB166080EXRK36U	36	1650	600	800	726
TB166010EXRK36U	36	1650	600	1000	926
TB186020EXRK40U	40	1800	600	200	126
TB186040EXRK40U	40	1800	600	400	326
TB186060EXRK40U	40	1800	600	600	526
TB186080EXRK40U	40	1800	600	800	726
TB186010EXRK40U	40	1800	600	1000	926
TB206020EXRK44U	44	2000	600	200	126
TB206040EXRK44U	44	2000	600	400	326
TB206060EXRK44U	44	2000	600	600	526
TB206080EXRK44U	44	2000	600	800	726
TB206010EXRK44U	44	2000	600	1000	926



Zones I, 2, 21 and 22

AC CONTACTOR MODULES

ATEX & IECEX IP66

Device Designed to Control Circuits or Motor Circuits Which Allow the Operation or not Operation of the Circuit



Example screw closure (Geoex)



Example hinged closure (Luxorex)

The AC contactor modules ATEX & IECEX, are devices to control circuits or motor circuits permitting or not allowing the operation of the circuit. These contactor can be used in branch circuits to control lighting, heating, appliances, motors and similar circuits.

These contactors guarantee the safety of the technical staff who work with them, because these contactors can work at really high or low currents. In addition these devices are far from the controlled equipment, thus increasing safety.

The contactor allows the control of one machine from different places, wich it means less time spent on maintenance.

Enclosed in a waterproof antirust box with AISI 304L stainless steel. This design allows use of the device in protected spaces with high explosion risk, so obtaining, the "Ex e" and "Ex d" protection for use in potentially explosive atmospheres of dust and gas.

We have two types of closures:

- Screw closure (Geoex)
- Hinged closure (Luxorex)



FOR MORE INFORMATION CLICK HERE



AC CONTACTOR MODULES **ATEX & IECEx** IP66

TECHNICAL FEATURES

- The joint between the cover and body, is designed to secure a really high degree protection IP66.
- The box has a polished finish in AISI 304L stainless steel.
- This equipment includes three cable glands in nickel plated brass with "Ex e" protection two in M25 and the other in M16.
- It has wall brackets, encircling wall placement if so required.
- This contactor works with 690V rated voltage and up to 38A rated current.
- It can work between two temperature ranges, which give it a great use capacity.
 - $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
 - $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$



ADVANTAGES

- This device design is in 304L stainless steel, but can also be manufactured in 316L stainless steel.
- It's possible to add two auxiliary contacts so as to integrate another circuit more simply. It has no fragile mechanisms, so proves a really strong and reliable device.
- One of the most important advantages is the possibility of automatizing the motor on and off switch.
- It protects the internal receptor from important drops in voltage.
- These contactors allow work with complicated machines and equipment through auxiliary devices such, as position switches, inductive sensors, pressure switches, timers, etc.

OPTIONS

- We have two types of closures:
 - Screw closure (Geoex)
 - Hinged closure (Luxorex)
- 5 extra terminals between 1 and 2.5mm² can be added.
- Possibility of choosing voltage between: 24, 36, 48, 110, 220-230 and 380-400V.
- Possibility of choosing a current between: 12, 25 and 38.
- Box can be made in AISI 316L stainless steel for marine or highly corrosive places.
- Cable glands available in any size and thread (stainless steel).



AC CONTACTOR MODULES **ATEX & IECEx** IP66



PROTECTION MODE

This equipment is certified for use in potentially explosive atmospheres in 1, 2, 21 and 22 zones.

Atex marking:

- II2G Ex d e IICT6/T5 Gb
- II2D Ex tb IICT85°C /T100°C Db

- Certificate number: LOM I4ATEX2082
 - Certificate number: LOM I7ATEX1011
- IECEx marking:

- Ex d e IICT6/T5 Gb
- Ex tb IICT85°C/T100°C Db
- Certificate number: EX/LOM/IECEx



REGULATIONS

Atex directive and regulation:

- Atex directive 2014/34/EU
- EN 60079-0:2012
- EN 60079-1:2007
- EN 60079-7:2015
- EN 60079-31:2010

IECEx regulation:

- IEC 60079-0:2011
- IEC 60079-1:2006

- IEC 60079-7:2015
- IEC 60079-31:2013

Enclosure regulation:

- IP regulation (IP65): IEC 60529
- IK regulation (IK10): IEC 62262

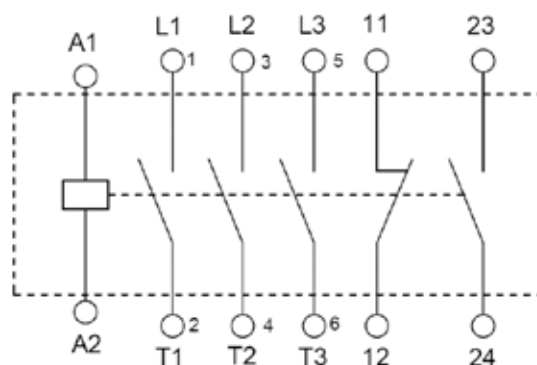
Low voltage directive and regulation:

- Directive 2014/35/UE
- EN 61439-1:2011
- EN 61439-2:2011



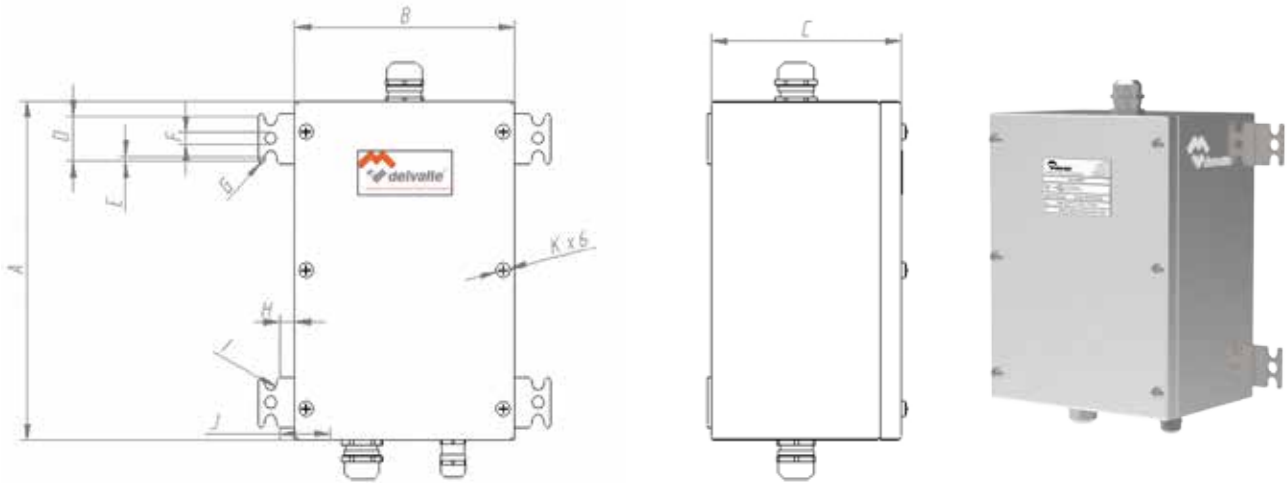
ELECTRICAL DIAGRAM

The electrical diagram is the same for each option, but the blueprint changes with the extra terminals. If terminals are added the size of the device will rise.



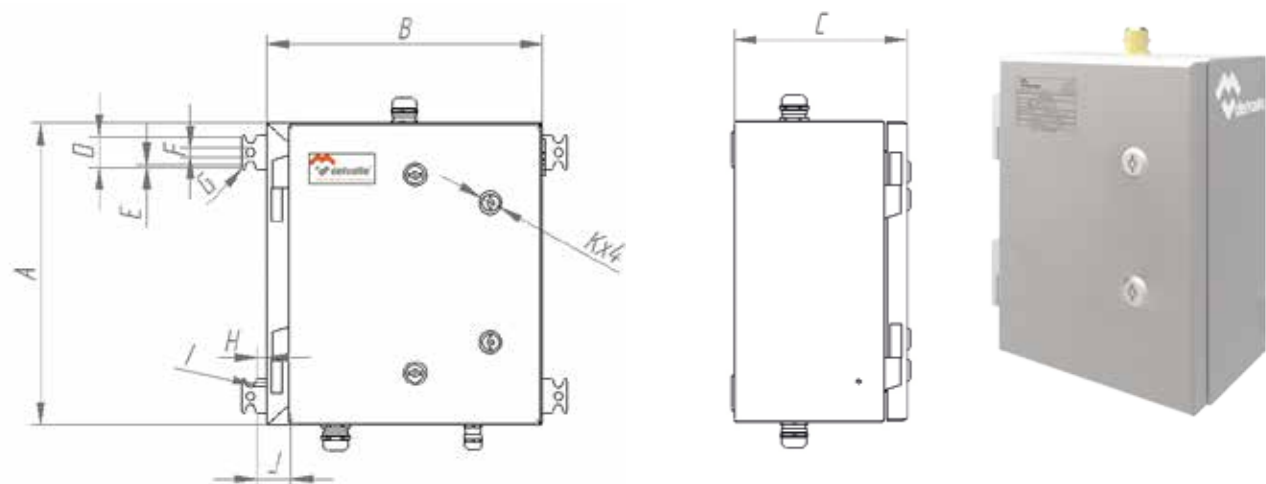
AC CONTACTOR MODULES **ATEX & IECEx** IP66

BLUEPRINT AND DIMENSIONS GEOEX



DIMENSIONS (mm)											
	A	B	C	D	E	F	G	H	I	J	K
Without terminals	270	175	150	36	3.5	D10	R2	I2	R5	40	D12
With terminals		200									

BLUEPRINT AND DIMENSIONS LUXOREX



DIMENSIONS (mm)											
	A	B	C	D	E	F	G	H	I	J	K
Without terminals	350	250	150	36	3.5	D10	R2	I2	R5	40	D27
With terminals		320									

AC CONTACTOR MODULES **ATEX & IECEx** IP66



10
YEARS
GUARANTEE

STAINLESS
ANTICORROSIVE

CUSTOM
MADE

5
YEARS
GUARANTEE

MECHANICAL
PARTS



REFERENCES

To create this product reference see the table below, including each possible option:

TYPE	RATED CURRENT (A)	RATED VOLTAGE (V)	EXTRA TERMINALS	AUXILIARY CONTACT INO+INC	EX
ACCM	To choose one	To choose one, in case of the last two write the higher number	To choose one	To write it if this option is required	EX
	12	24	0	NONC	
		36			
	25	48	5		
		110			
	38	210-230			
		380-400			

EXAMPLE GEOEX	A contactor Geoex with 12A, with 210-230V rated voltage, without extra terminals and with the auxiliary contact	
	CODE	ACCM/12/230-0-NONC-EX
EXAMPLE LUXOREX	A contactor Luxorex with 12A, with 210-230V rated voltage, without extra terminals and with the auxiliary contact	
	CODE	ACCM/12/230-0-NONC-EX-P



Zones I, 2, 21 and 22

ATEX ELECTRICAL BOXES WITH FIRE PROTECTION +1000°C



Avoid Damages in Case of Fire, With Our Fireproof Externally Facing that Isolate the Electrical Equipment Inside of the Enclosure

Atex Delvalle offers now a fireproof solution for boxes and enclosures protecting the terminals inside from the extreme temperatures of 1,093 °C /2000°F based fires for up to 30 minutes, in the meantime the internal temperature of the enclosure doesn't exceed of 87°C.

Ours enclosures are characterized by their high strength and durability, they are made of AISI 316L stainless steel with fireproof externally facing.

Examples

➔ **FOR MORE INFORMATION CLICK HERE**



APPLICATIONS

- For the environments of explosion proof (zones I, 2, 21 and 22), we have to control the tasks of supervision and control of demanding operations.
- Petrochemical production, gas plants, pumping stations, storage of deposits, LNG production ...
- Planned for use offshore, oil refineries, chemical and petrochemical sectors and any space with a risk of explosion in general.



ATEX ELECTRICAL BOXES WITH FIRE PROTECTION +1000°C



FEATURES

- For those who demand quality, reliability and above all, safety in extreme conditions.
- Considered for its quality and strength, extremely important in demanding environments.
- These boxes have few restrictions on their design and application.
- Setting boxes and cable entries to satisfy the customer requirements.
- The fireproof externally facing doesn't affect the certification, or the functionality of the enclosure. Not only is the enclosure protected, the glands are encased as well to ensure maximum protection and safety.



ADVANTAGES

- Suitable for critical low current control control and instrumentation applications.



NORMATIVE

- Suitable for use in zones 1, 2, 21 and 22.
- Construction and test standards:
 - IEC / EN 60079-0, IEC / EN 60079-7 and IEC / EN 60079-31
- UL 1709
- API 2218





CABLE ENTRY COVERS **ATEX** IP65

Our cable entry covers IP65 protection (minimum).

An ideal complement when we do not know in advance the number of holes or glands to be fixed on the cabinet.

Cable entry cover, Luxorex, Tribex and Geoex models.

CUSTOM
MADE

(Drilling holes for the placement of cable glands, plugs...)





CABLE ENTRY COVERS **ATEX** IP65

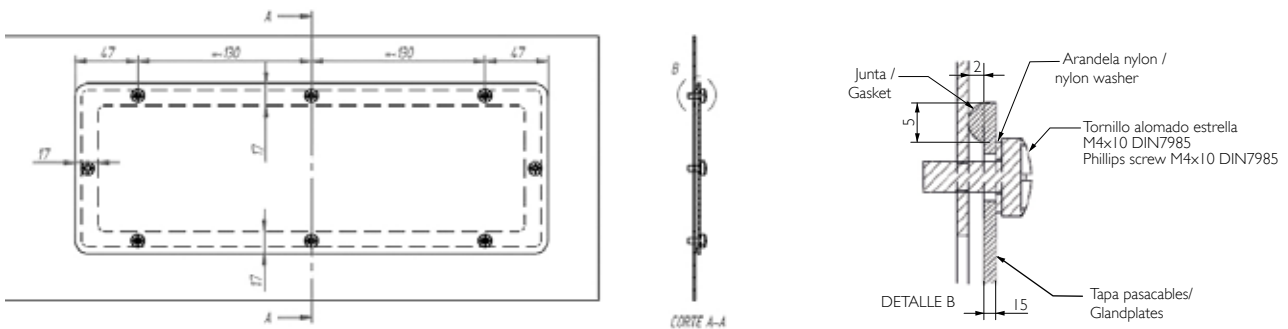


CHARACTERISTICS

- Made in stainless steel.
- Custom-made: minimum size of 90mmx90mm and maximum size of 600mmx600mm (the widest range now available on the market).
- Certified ATEX, Ex.
- Thickness:
 - Two options: 1.5 mm and 3 mm.
- Easy mounting with screws for easy drilling, keeping protection and ATEX safety.

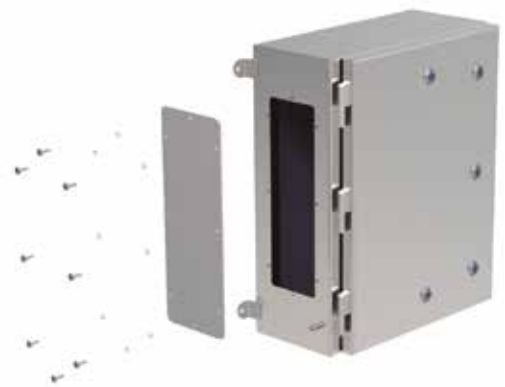


BLUEPRINT AND DIMENSIONS



REFERENCES

REFERENCES	DIMENSIONS (mm)			MACHINING
REFERENCES	HEIGHT - A -	WIDTH - B -	DEPTH - C -	MACHINABLE AREA - DxF -
TP909015EX	90	90	1,5	56x56
TP909030EX	90	90	3	56x56
TP149015EX	140	90	1,5	106x56
TP149030EX	140	90	3	106x56
TP259015EX	250	90	1,5	216x56
TP259030EX	250	90	3	216x56
TP351315EX	350	130	1,5	316x56
TP351330EX	350	130	3	316x56
TP503030EX	500	300	3	466x266
TP504030EX	500	400	3	466x366
TP606030EX	600	600	3	566x566





CONTROL STATION & DISTRIBUTION BOXES





STAINLESS STEEL

Zones 1, 2, 21 and 22

LOCAL CONTROL AND DISTRIBUTION BOXES

CONTREX-GEOEX SERIES IP66



Examples



Custom Made in Any Size

Atex control boxes. They are specially designed to perform checks, maneuvers and as actuators in explosive atmospheres. They have a rugged, anti-corrosion system and finished in stainless steel.

They it allows you to perform maneuvers and automation controls at the machine in hazardous areas control. Offering customers great combinations and flexibility. Select the components that best suit your operator panels, keypads, mushrooms, switches, ammeters, HMI,... and we assemble all with Atex certified Ex, IECEx and UL.

➔ [FOR MORE INFORMATION CLICK HERE](#)



LOCAL CONTROL AND DISTRIBUTION BOXES **CONTREX-GEOEX SERIES** IP66



GENERAL FEATURES

- Zones 1, 2, 21 and 22.
- Easy assembly.
- Custom made solutions.
- Stainless steel enclosure.
- Up to 4 pushbutton actuators.

TECHNICAL SPECIFICATIONS

- Explosion protection
 - Ex II 2G Ex edqm ia/ib [ia/ib] II, IIA, IIB, IIC, T6, T5 ◦ T4
 - Ex II 2D Ex tb T80 °C, T 95 °C, T1 30 °C, IP66.
- Permissible ambient temperature: -25°C < Ta < 60°C.
- Cable entry
 - Standard: A gland in the lower side of M25.
 - Special: glands at the bottom and other sizes. Consult information.
- Max connection: Terminals 2,5 mm².
- Protection type: IP66.
- Case material: AISI304L, optional AISI316L.

CUSTOM MADE CONTROL STATIONS BOXES PERSONALICE

1. SELECT THE SIZE OF THE BOX

2. CUSTOMIZE THE BOX WITH ACTUATORS

3. ADD THE CABLE GLANDS

4. DELVALLE GIVES PROJECT AND CERTIFIED ATEX / IECEx





STAINLESS STEEL

Zones 1, 2, 21 and 22

DISTRIBUTION AND CONTROL CABINETS

CONTREX-LUXOREX SERIES IP66



Control Cabinet with Atex Final Product Certificate

Distribution and control cabinets Contrex-Luxorex Series have been designed to be able to implement different devices and actuators on the customer's specifications and be delivered with an Atex final product certificate.

These cabinets stand out due to their easy door opening, up to 170 degrees by quarter-turn locks and hinges as well as by incorporating Atex & IECEx components pre-installed.

Example

➔ FOR MORE INFORMATION CLICK HERE



DISTRIBUTION AND CONTROL CABINETS **CONTREX-LUXOREX SERIES** IP66

CHARACTERISTICS

They are provided for a voltage up to 1100 V and for a maximum ambient temperature up to +60°C, depending on the kind of temperature needed and currents assigned.

As for the enclosure, it is a cabinet with quarter-turn closures and hinges made of stainless steel with 170° door opening with the following characteristics:

- Atex cabinets with stainless steel AISI 304L revolving door or AISI 316L and a polished elegant surface finish.
- They are intended for use in explosive atmospheres listed as zones 1, 2, 21 and 22 and to place Ex components and terminals inside, as well as cable glands.
- Fabrication of the cabinet based on a unique system of welding and folding monobloc that achieves a perfect sealing and resistance to impact with pre-assembled body and door and minimum welding.
- Atex M8 mass insert for external connection.
- Double-bit quarter-turn locks made of stainless and 170° opening hinges steel.
- Very resistant polyurethane joint from -25°C to +60°C.
- Silicone seal -45°C +135°C (optional).
- Plugs, holes and hinges that withstand temperatures from -25°C to +60°C.
- Atex cable glands, as well as Roxtec cable entry systems.



ADVANTAGES

- Customized design and execution.
- Optimized working thanks to a wide range of integrated equipment
- Single door opening with double bit fasteners.
- Great turn of door opening 170°.
- Polished finish on all sides.
- Robustness, security and guaranteed reliability.
- Variety of dimensions with large interior space that simplifies connection operations.
- Atex & IECEx components already installed inside.
- Use both indoors and outdoors or in corrosive areas.
- Anti-corrosion protection guaranteed.
- Great safety and resistance in the most aggressive explosive environments thanks to the design and the materials used in its manufacture.
- 5 year warranty on mechanical parts, and 10 year warranty on stainless steel.





DISTRIBUTION AND CONTROL CABINETS **CONTREX-LUXOREX SERIES** IP66

OPTIONS

- Cabinets used as maneuver stations, incorporating certified components of connection, maneuver, signaling: pushbuttons, emergency mushrooms, lights, pushbuttons.
- We manufacture with water tightness and Atex & IECEx certifications
- The cabinets can be used with increased in: "Ex e" or "Ex t".
- These control stations may be used for connection of intrinsically safe circuits.
- Design and layout of custom components.
- Atex cable glands, as well as Rextec cable entry systems.

PROTECTION MODE

This enclosure is certified for use in potentially explosive atmospheres in zones 1, 2, 21 and 22 and may be used with increased safety protection mode "Ex e" including increased safety connection terminals or enclosure protection mode "Ex tb".

- Atex protection mode:
 - II 2G Ex eb IICT6 Gb
 - II 2D Ex tb IICT85°C Db
- IECEx protection mode:
 - Ex eb IICT6 Gb
 - Ex tb IICT85°C Db
- Degree of resistance against impact IK10
- IP66 protection

NORMATIVE

Atex & IECEx directive and regulations:

- Atex Directive 2014/34 / EU
- Certificate of the envelope as a component:
 - LOM I4ATEX3026U
- Equipment Certificate:
 - LOM I7ATEX1011
- Quality certificate:
 - LOM I4ATEX9050
- IP66 according to IEC Standard EN 62208 and EN 60529
- Complies with RoHs regulations

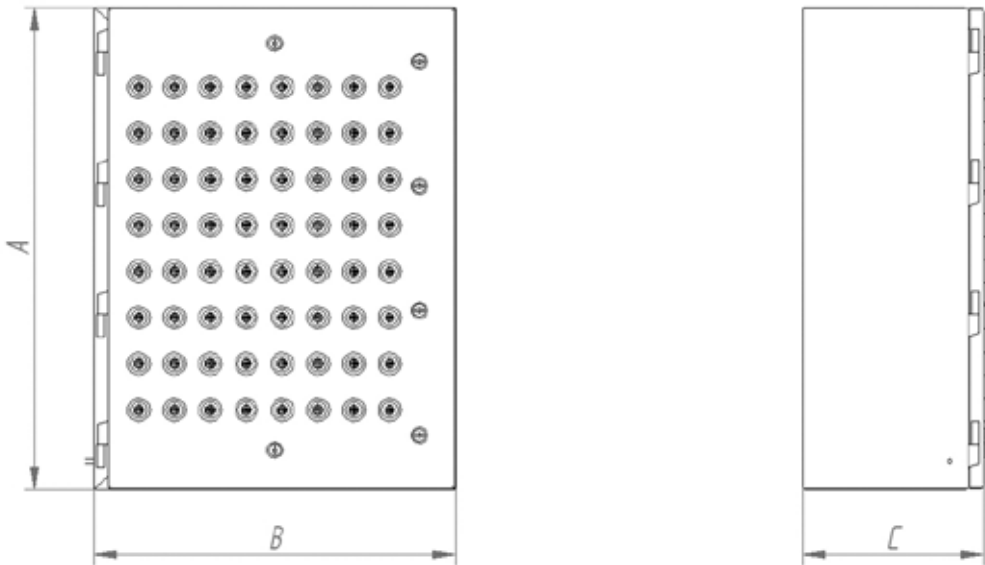
- Degree of resistance against impact IK10 according to standard IEC62208 and EN 62262
- EN 60079-7: 2007
- EN 60079-31: 2014
- UNE-EN 60079-0: 2011
- UNE-EN 60079-1: 2015
- UNE-EN 60079-5: 2008
- UNE-EN 60079-7: 2007
- UNE-EN 60079-18: 2016
- UNE-EN 60079-25: 2010
- UNE-EN 60079-31: 2014





DISTRIBUTION AND CONTROL CABINETS **CONTREX-LUXOREX SERIES** IP66

BLUEPRINT AND DIMENSIONS



REFERENCES

REFERENCES	DIMENSIONS (mm)			MAXIMUM NUMBER		
CONTREX LUXOREX	HEIGHT - A -	WIDTH - B -	DEPTH - C -	MEASURING DEVICES	PLUG MOUNTING PLUGS	ACTUATORS
LXCSP302015EX	300	200	155	3	2	6
LXCSP383015EX	380	300		6	6	19
LXCSP504021EX	500	400	210	12	9	25
LXCSP605021EX	600	500		20	16	49
LXCSP806030EX	800	600	300	30	30	64
LXCSP108030EX	1000	800		42	56	90





STAINLESS STEEL

Zones I, 2, 21 and 22

LARGE SIZE DISTRIBUTION AND CONTROL CABINETS

CONTREX-TRIBEX SERIES IP66



Example

Large Sizes

The distribution local control panels of Contrex-Tribex Series incorporates different devices and actuators according to the customer's needs and is delivered with Atex final product certificate. No need to be homologated in a laboratory once assembled.

Atexdelvalle have been providing world class ex panel and ex enclosure solutions for several years now and we often get asked by our customers to provide fully wired up Ex enclosures so they can just plug in and play.

The distribution and control device combinations of Atex Delvalle are built according to customer specifications for use in areas with flammable gases and dust.

We have a set of Atex actuators that can be implemented: Atex buttons, Atex ammeters, Atex selectors, Atex voltmeters, Atex lights,... to implement in our Atex enclosures and give the complete solution.

➔ [FOR MORE INFORMATION CLICK HERE](#)



LARGE SIZE DISTRIBUTION AND CONTROL CABINETS **CONTREX-TRIBEX SERIES** IP66

CHARACTERISTICS

The stand Ex enclosures hinged door, high capacity, to house great amount of elements and of devices for explosive atmospheres.

They are designed for a maximum voltage of up to 1100V and for maximum ambient temperature up to 60°C, according to class of temperature marked and currents assigned.

With regard to the Ex enclosure, is made of stainless steel Tribex, which has the following characteristics:

- Ex stand enclosures made of stainless steel AISI 304L or AISI 316L and satin polished surface finish.
- They are intended for use in explosive atmospheres classified as Zones I, 2, 21 and 22 and to place Ex components and terminals inside, as well as cable glands.
- Unique monobloc system that achieves perfect sealing and impact resistance. With body and door pre-assembled, and minimum welding.
- Dough insert that allows external connection.
- With double-bit quarter-turn closures and hinges made of stainless steel.
- Very resistant polyurethane seal from -25°C to +60°C, or silicone -40°C to +130°C.
- Plugs, holes and hinges that resist from -25°C to +60°C.



ADVANTAGES

- Contrex-Tribex is the largest approved Ex enclosure now stands at two door 2000mm(h)×2000(w)×1000(d). or in one door 2000(h)×1000(w)×1000(d)
- Fully wired panels, Full Customized design and execution.
- Functionality optimized thanks to a wide range of integrated equipment.
- Equipped with integrated actuators.
- Degree of IP66 tightness.
- Atex & IECEx components already installed inside.
- Use both inside and outside.
- Large interior space that simplifies connection operations.
- Anti-corrosion protection guaranteed.
- It can store a large number of terminals. Up to 1550 terminals in one cabinet.
- Robustness, safety, reliability tested.
- Great safety and resistance in the most aggressive explosive environments thanks to the design and the materials used in its manufacture.
- Double access option (front and rear doors).
- Made to order in AISI 316L with high corrosion resistant & maritime areas.



LARGE SIZE DISTRIBUTION AND CONTROL CABINETS **CONTREX-TRIBEX SERIES** IP66



OPTIONS

- Ex Enclosures used as maneuvering stations, incorporating certified components of connection, maneuver, signaling: pushbuttons, emergency mushrooms, lights, pushbuttons.
- We manufacture waterproof IP66 with Atex & IECEx certifications.
- The Ex enclosures can be used with increased safety protection mode "Ex e" including increased safety connection terminals or "Ex t" ex enclosure protection mode.
- Enclosures used with enclosure protection mode.
- These control stations may be used for connection of intrinsically safe circuits.



PROTECTION MODE

This Enclosure is certified for use in potentially explosive atmospheres in zones 1, 2, 21 and 22 and may be used with increased safety protection mode "Ex e" including increased safety connection terminals or enclosure protection mode "Ex t".

- Protection mode:
 - II 2G Ex eb IICT6 Gb
 - II 2D Ex tb IICT85°C Db
- Resistance against impact IK10
- IP66 enclosure protection.



NORMATIVE

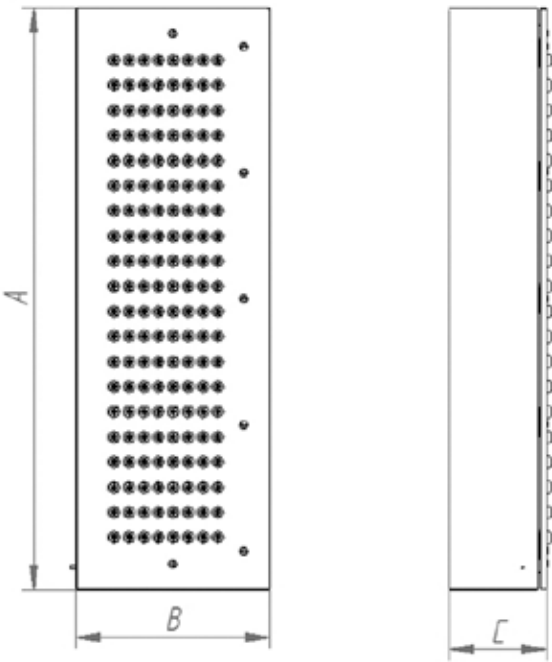
Atex & IECEx directive and regulations:

- Atex Directive 2014/34 / EU
- Certificate of the envelope as a component:
 - LOM I4ATEX3026U
- Equipment Certificate:
 - LOM I7ATEX1012
- Quality certificate:
 - LOM I4ATEX9050
- IP66 according to IEC Standard EN 62208 and EN 60529
- Complies with RoHs regulations
- Degree of resistance against impact IK10 according to standard IEC62208 and EN 62262
 - EN 60079-7:2007
 - EN 60079-31:2014
 - UNE-EN 60079-0:2011
 - UNE-EN 60079-1:2015
 - UNE-EN 60079-5:2008
 - UNE-EN 60079-7:2007
 - UNE-EN 60079-18:2016
 - UNE-EN 60079-25:2010
 - UNE-EN 60079-31:2014



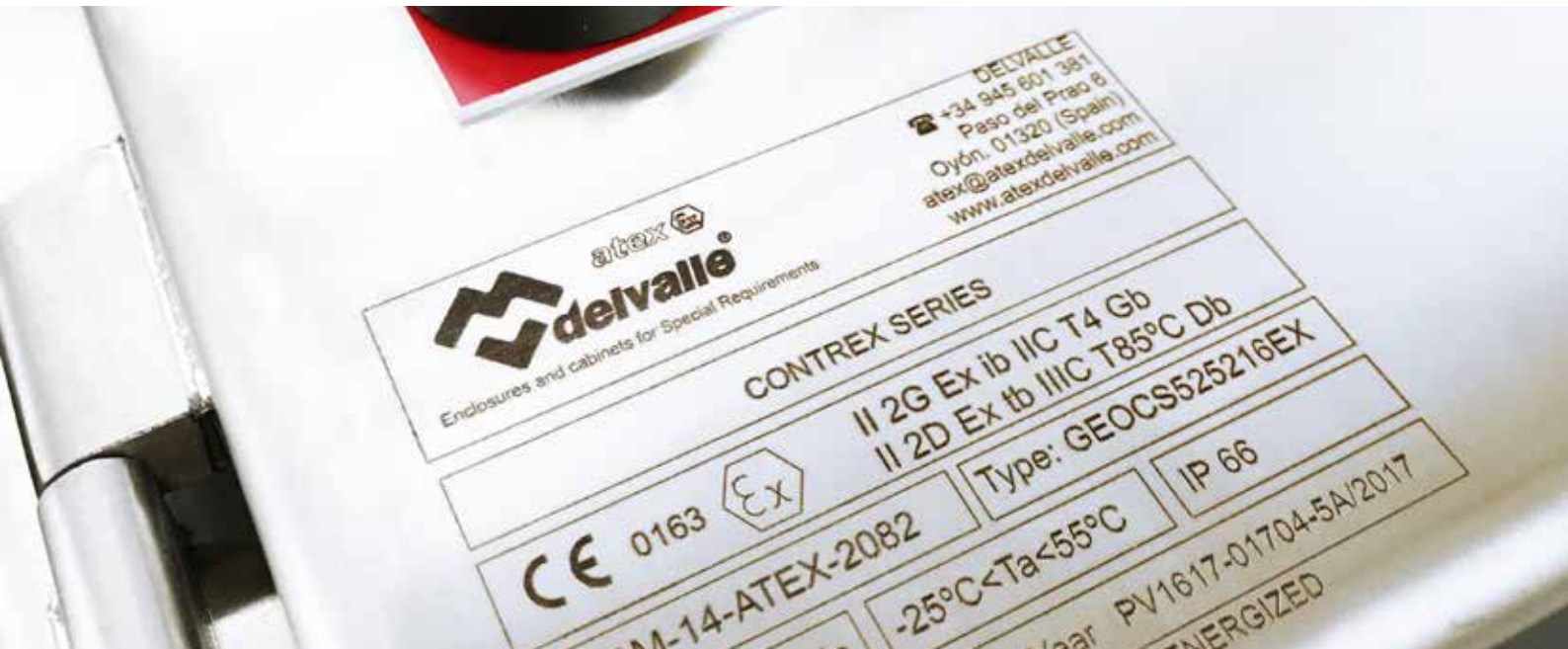
LARGE SIZE DISTRIBUTION AND CONTROL CABINETS **CONTREX-TRIBEX SERIES** IP66

BLUEPRINT AND DIMENSIONS



REFERENCES

REFERENCES	DIMENSIONS (mm)			MAXIMUM NUMBER		
	HEIGHT - A -	WIDTH - B -	DEPTH - C -	MEASURING DEVICES	PLUG MOUNTING PLUGS	ACTUATORS
TBCS126030EX	1200	600	300	36	36	80
TBCS166030EX	1650			64	64	144
TBCS186030EX	1800			68	68	160





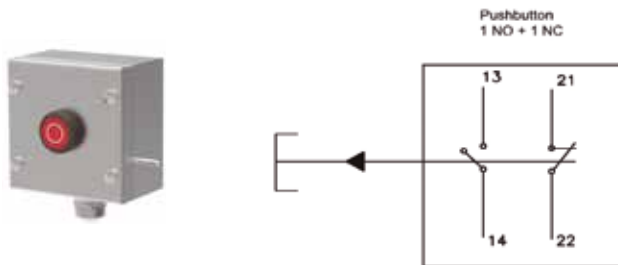
STAINLESS STEEL

Zones 1, 2, 21 and 22

PRE-ASSEMBLED STAINLESS STEEL CONTROL BOXES

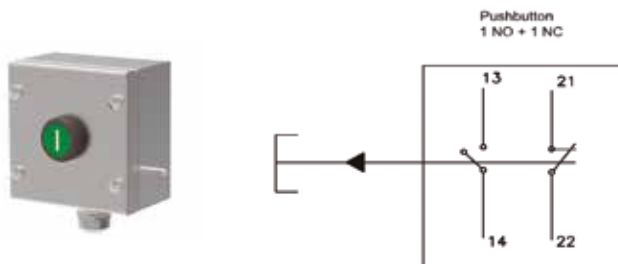
CONTREX-GEOEX SERIES IP66

CONTREX 1000. I PUSH BUTTON STOP



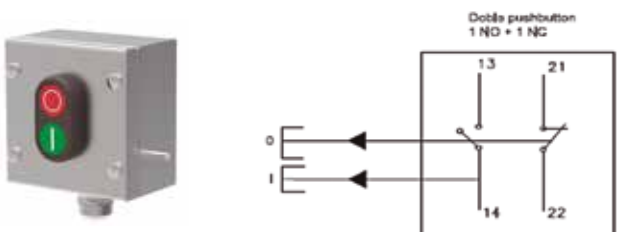
REFERENCE	CONTREX 1000
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Stop switch NO + NC • Nickel plated brass or stainless steel for non armored cable M20. • Optional other metrics, other materials, for armored cable, etc

CONTREX 1010. I PUSH BUTTON START



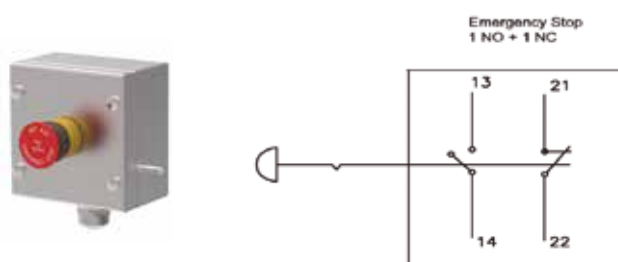
REFERENCE	CONTREX 1010
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Push start NO + NC • Nickel plated brass or stainless steel for non armored cable M20. • Options other metrics, other materials, for armored cable, etc

CONTREX 1020. DOUBLE PUSH



REFERENCE	CONTREX 1020
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Double pushbutton NO + NC • Nickel plated brass or stainless steel for non armored cable M20. • Options other metrics, other materials, for armored cable, etc

CONTREX 1030. EMERGENCY STOP

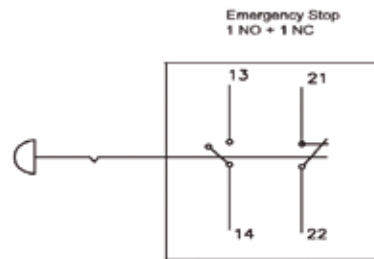


REFERENCE	CONTREX 1030
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Emergency button NO + NC • Nickel plated brass or stainless steel for non armored cable M20. • Options other metrics, other materials, for armored cable, etc



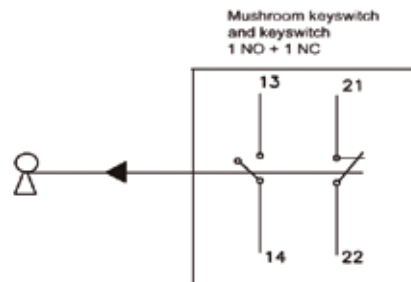
PRE-ASSEMBLED STAINLESS STEEL CONTROL BOXES **CONTREX-GEOEX SERIES** IP66

CONTREX I03I. EMERGENCY STOP BUTTON WITH KEY



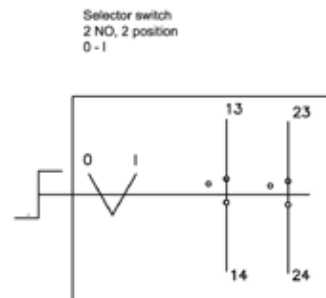
REFERENCE	CONTREX I03I
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	- Emergency stop button with key NO + NC - Nickel plated brass or stainless steel for non armored cable M20. - Options other metrics, other materials, for armored cable, etc

CONTREX I040. I KEY SWITCH

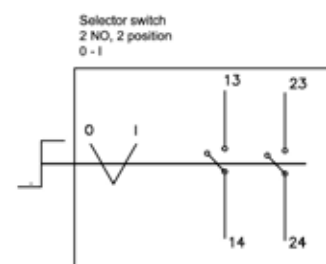


REFERENCE	CONTREX I040
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	- Key switch NO + NC - Nickel plated brass or stainless steel for non armored cable M20. - Options other sizes, other materials for armored cable,...

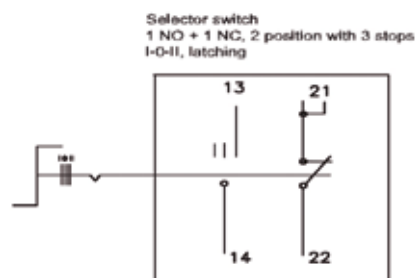
CONTREX I05I. A 3-POSITION SELECTOR



REFERENCE	CONTREX I05I
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	- Selector two positions NO - Nickel plated brass M20 cable gland for non armored cable. - Options other sizes, other materials for armored cable,...



CONTREX I050. A 3-POSITION SELECTOR

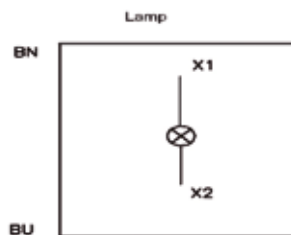


REFERENCE	CONTREX I050
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	- Selector three positions NO + NC - Nickel plated brass or stainless steel for non armored cable M20. - Options other sizes, other materials for armored cable,...



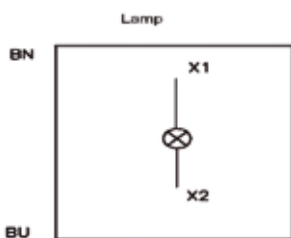
PRE-ASSEMBLED STAINLESS STEEL CONTROL BOXES **CONTREX-GEOEX SERIES** IP66

CONTREX 1060. A WHITE LIGHT



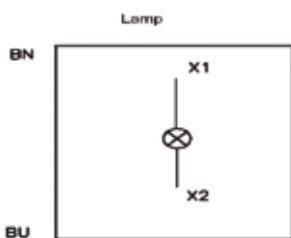
REFERENCE	CONTREX 1060
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• White pilot light • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX 1061. A GREEN LIGHT



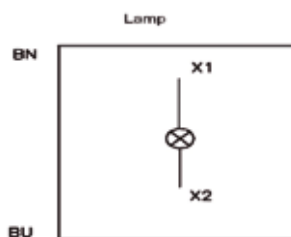
REFERENCE	CONTREX 1061
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Green pilot light • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX 1062. A RED LIGHT



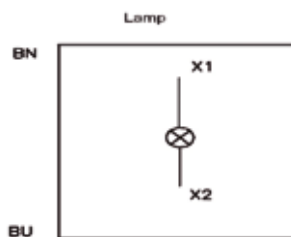
REFERENCE	CONTREX 1062
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Red pilot light • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX 1063. A YELLOW LIGHT



REFERENCE	CONTREX 1063
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Yellow pilot light with free NC • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

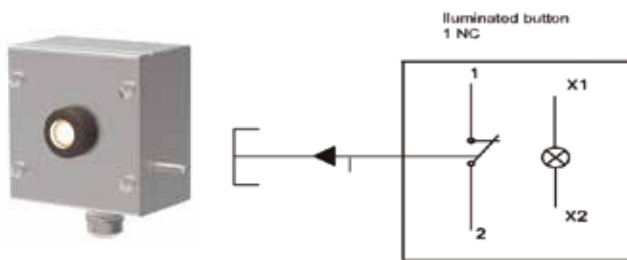
CONTREX 1064. A BLUE LIGHT



REFERENCE	CONTREX 1064
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Blue pilot light with free NC • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

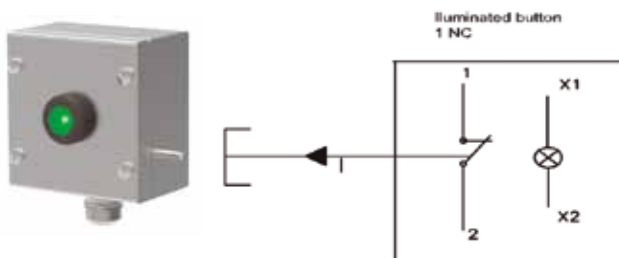
PRE-ASSEMBLED STAINLESS STEEL CONTROL BOXES **CONTREX-GEOEX SERIES** IP66

CONTREX 1070. BRIGHT WHITE BUTTON NC



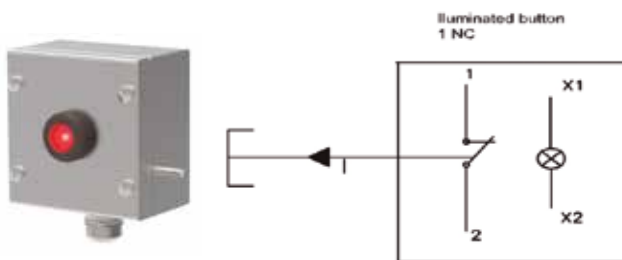
REFERENCE	CONTREX 1070
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• White pilot light with free NC • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX 1071. BRIGHT GREEN BUTTON NC



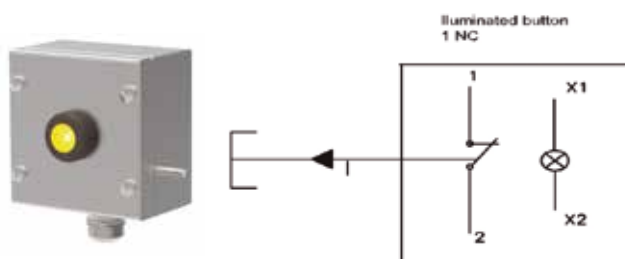
REFERENCE	CONTREX 1071
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Green pilot light with free NC • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX 1072. BRIGHT RED BUTTON NC



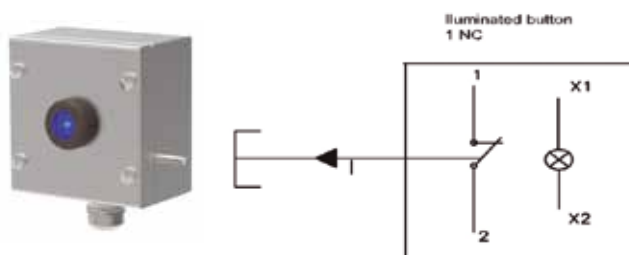
REFERENCE	CONTREX 1072
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Red pilot light with free NC • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX 1073. BRIGHT YELLOW BUTTON NC



REFERENCE	CONTREX 1073
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Yellow pilot light with free NC • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX 1074. BRIGHT BLUE BUTTON NC

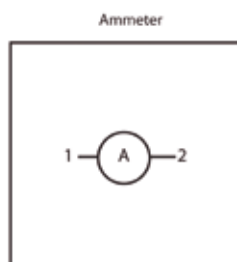


REFERENCE	CONTREX 1074
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Blue pilot light with free NC • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...



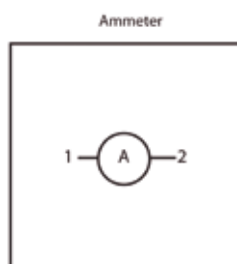
PRE-ASSEMBLED STAINLESS STEEL CONTROL BOXES **CONTREX-GEOEX SERIES** IP66

CONTREX I 100. AMMETER 1A



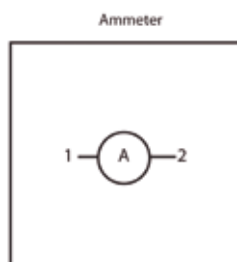
REFERENCE	CONTREX I 100
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Ammeter 1A. • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX I 101. AMMETER 4A



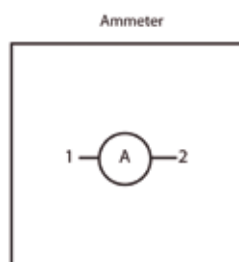
REFERENCE	CONTREX I 101
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Ammeter 4A. • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX I 102. AMMETER 5A



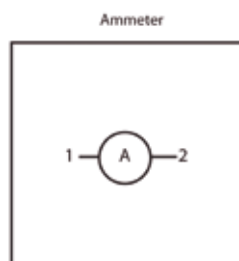
REFERENCE	CONTREX I 102
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Ammeter 5A. • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX I 103. AMMETER 10A



REFERENCE	CONTREX I 103
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Ammeter 10A. • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX I 104. AMMETER 15A



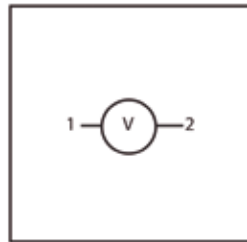
REFERENCE	CONTREX I 104
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Ammeter 15A. • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

PRE-ASSEMBLED STAINLESS STEEL CONTROL BOXES **CONTREX-GEOEX SERIES** IP66

CONTREX I200. VOLTMETER 25V



Voltmeter

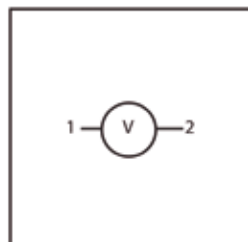


REFERENCE	CONTREX I200
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Voltmeter 25V. • Nickel plated brass or stainless steel for non armored cable M20. • Options other metrics, other materials, for armored cable, etc

CONTREX I201. VOLTMETER 40V



Voltmeter

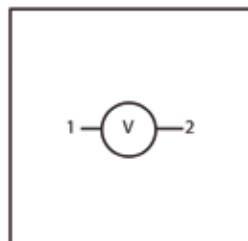


REFERENCE	CONTREX I201
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Voltmeter 40V. • Nickel plated brass or stainless steel for non armored cable M20. • Options other metrics, other materials, for armored cable, etc

CONTREX I202. VOLTMETER 150V



Voltmeter

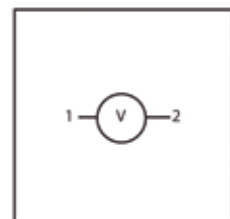


REFERENCE	CONTREX I202
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Voltmeter 150V. • Nickel plated brass or stainless steel for non armored cable M20. • Options other metrics, other materials, for armored cable, etc

CONTREX I203. VOLTMETER 250V



Voltmeter

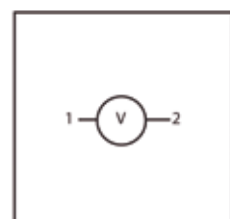


REFERENCE	CONTREX I203
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Voltmeter 25V. • Nickel plated brass or stainless steel for non armored cable M20. • Options other metrics, other materials, for armored cable, etc

CONTREX I204. VOLTMETER 500V



Voltmeter

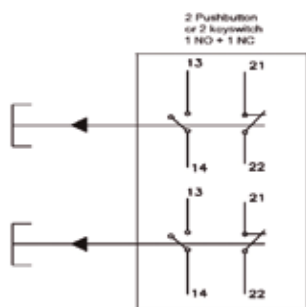


REFERENCE	CONTREX I204
SIZE	120x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Voltmeter 25V. • Nickel plated brass or stainless steel for non armored cable M20. • Options other metrics, other materials, for armored cable, etc



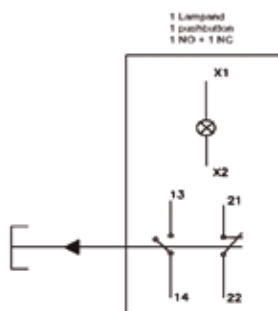
PRE-ASSEMBLED STAINLESS STEEL CONTROL BOXES **CONTREX-GEOEX SERIES** IP66

CONTREX 2010. 2 BUTTONS, START AND STOP



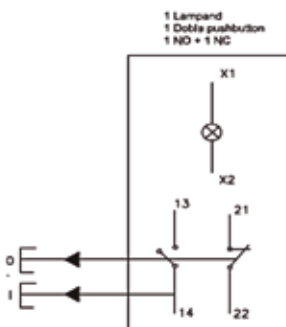
REFERENCE	CONTREX 2010
SIZE	160x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• NO + NC Start button. • NO + NC Stop button. • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX 2020. BRIGHT AND STOP



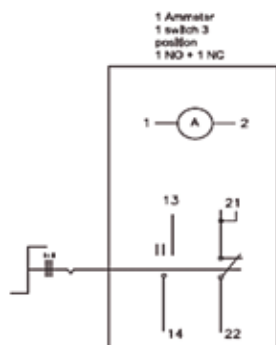
REFERENCE	CONTREX 2020
SIZE	160x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Green lamp. • Stop switch NO + NC. • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX 2030. BRIGHT AND DOUBLE BUTTON



REFERENCE	CONTREX 2030
SIZE	160x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Green lamp. • Double pushbutton NO + NC. • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

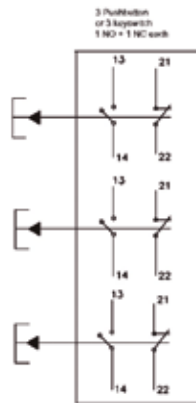
CONTREX 2100. AMMETER AND SELECTOR



REFERENCE	CONTREX 2100
SIZE	190x130x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Ammeter 5A. • 3-position selector NC + NO. • Nickel plated brass or stainless steel for non armored cable M20. • Options other metrics, other materials, for armored cable, etc

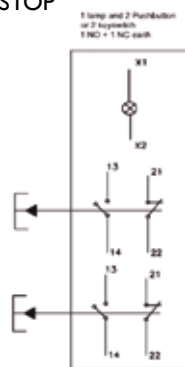
PRE-ASSEMBLED STAINLESS STEEL CONTROL BOXES **CONTREX-GEOEX SERIES** IP66

CONTREX 3010. 3 BUTTONS



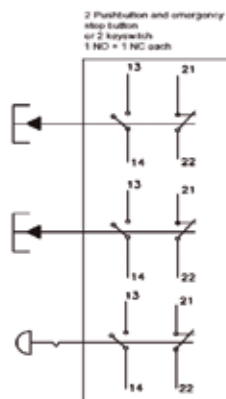
REFERENCE	CONTREX 3010
SIZE	210x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Green button NC + NO. • Green button NC + NO. • Red button NC + NO • Nickel plated brass or stainless steel for non armored cable M20. Metric options, other materials, for armored cable, etc.

CONTREX 3020. START AND STOP



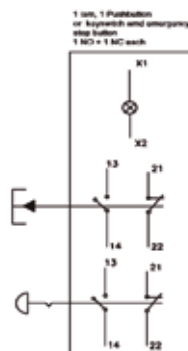
REFERENCE	CONTREX 3020
SIZE	210x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Red Pilot. • Start button NC + NO. • Stop switch NC + NO. • Nickel plated brass M20 stainless steel for non armored cable. Metric options, other materials, for armored cable, etc.

CONTREX 3030. START, STOP AND EMERGENCY STOP



REFERENCE	CONTREX 3030
SIZE	210x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Start button NC + NO. • Stop switch NC + NO. • Emergency button NC + NO. • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX 3040. BRIGHT, STOP AND EMERGENCY STOP

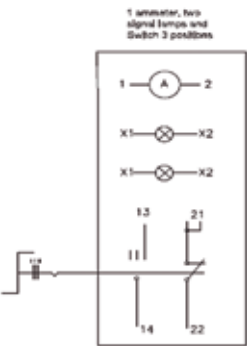


REFERENCE	CONTREX 3040
SIZE	210x120x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Pushbutton start NC + NO. • Pushbutton stop NC + NO. • Emergency button NC + NO. • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...



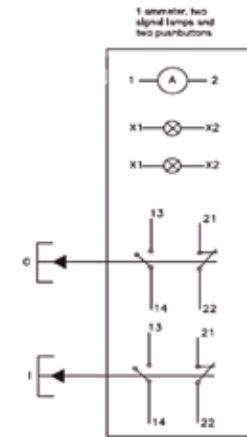
PRE-ASSEMBLED STAINLESS STEEL CONTROL BOXES **CONTREX-GEOEX SERIES** IP66

CONTREX 4010. 2 PILOTS AND A SELECTOR



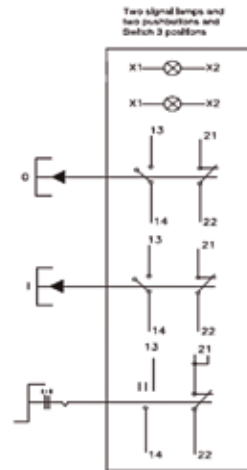
REFERENCE	CONTREX 4010
SIZE	300x200x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Ammeter 5A. • Red Pilot. • Pilot Green. • Selector three NC + NO positions. • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX 4020. AMMETER, 2 PILOTS AND 2 BUTTONS



REFERENCE	CONTREX 4020
SIZE	300x200x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Ammeter 5A. • Red Pilot. • Green lamp. • Stop button NC + NO. • Startbutton NC + NO. • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...

CONTREX 4030. 2 PILOTS, 2 PUSH BUTTONS AND SELECTOR



REFERENCE	CONTREX 4030
SIZE	300x200x75 (Option AISI304L and AISI316L)
IT CONTAINS	• Red Pilot. • Green lamp. • Stop button NC + NO. • Start button NC + NO. • Selector three NC + NO positions • Nickel plated brass or stainless steel for non armored cable M20. • Options other sizes, other materials for armored cable,...





GRP REINFORCED POLYESTER

Zones 1, 2, 21 and 22

CONTROL STATION BOXES

CONTREX GRP SERIES



**Get Control in Any Area
with Maximum Security
and Flexibility**

For efficient operation and monitoring of multiple electrical circuits and machinery in explosion hazardous areas, control stations can be tailored to exactly meet application requirements.

Control station GRP product series, and stainless steel are available, certified according to the types of explosion protection “Ex e”, “Ex ib” and “Ex tb”. Up to 56 operator elements covering various control functions can be integrated in a single control station, depending on enclosure size and series.

➔ [FOR MORE INFORMATION CLICK HERE](#)

Examples





CONTROL STATION BOXES **CONTREX GRP SERIES**



TECHNICAL FEATURES

- Ex mark:
 - Ex II 2G Ex de IIC T6
 - Ex II 2D Ex tD A2I T80 °C IP66.
- Ambient temperature use: $-40^{\circ}\text{C} < T_a < 40^{\circ}\text{C}$
- Sección de conexión máx.: terminals of $2,5 \text{ mm}^2$
- Degree of protection: IP66
- Material of enclosure: Alloy plastic of static resistance.
- Rated voltage: 250V
- Rated current: 16A



GENERAL CHARACTERISTICS

- Ex de (factory sealed) operators including push buttons, illuminated push buttons, selector switches, control and load break switches, contact blocks, pilot lights (LED), and terminal blocks.
- Enclosures are rated for IP66 with a firmly secured gasket.
- Operators and contact blocks are spaced out so as to have easy and ample space for wiring.
- Wide selection of cable glands, union adapter entries at top and bottom locations.
- Choice of DIN rail mounted high performance contact block suitable for low intensity (less than 5mA).
- Captive, corrosion resistant stainless steel cover screws four sizes available.
- Zones I, 2, 21 and 22.
- International certification IECEx, Atex and TUV.

CUSTOMIZE YOUR BOXES MANEUVERS MADE OF REINFORCED POLYAMIDE GRP

1. SELECT THE SIZE OF THE BOX
2. SELECT BASES
3. DETERMINE THE COVERS
4. DELVALLE GIVES PROJECT AND CERTIFIED ATEX





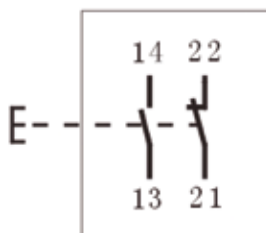
GRP REINFORCED POLYESTER

Zones I, 2, 2I and 22

PRE-ASSEMBLED POLYESTER CONTROL BOX

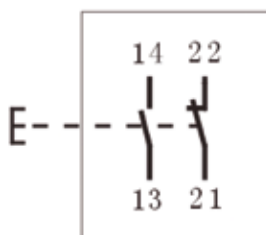
CONTREX-GRP SERIES

CONTREX I000GRP. PUSHBUTTON STOP



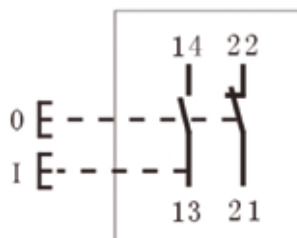
REFERENCE	CONTREX I000GRP
SIZE	95x86x76
IT CONTAINS	• Pushbutton stop NO+NC • Polyamide M20 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I010GRP. PUSHBUTTON START



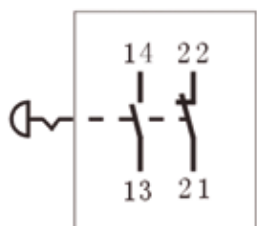
REFERENCE	CONTREX I010GRP
SIZE	95x86x76
IT CONTAINS	• Pushbutton start NO+NC • Polyamide M20 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I020GRP. DOUBLE PUSHBUTTON



REFERENCE	CONTREX I020GRP
SIZE	95x86x76
IT CONTAINS	• Double pushbutton NO+NC • Polyamide M20 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I030GRP. EMERGENCY STOP

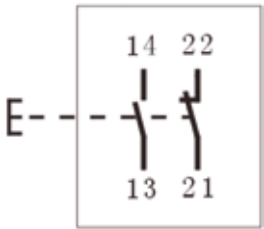


REFERENCE	CONTREX I030GRP
SIZE	95x86x76
IT CONTAINS	• Emergency stop NO+NC • Polyamide M20 cable gland for non armored cable. • Optional other materials, for armored cable,...



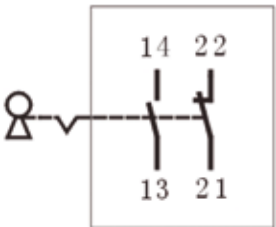
PRE-ASSEMBLED POLYESTER CONTROL BOX **CONTREX-GRP SERIES**

CONTREX I03 IGRP. EMERGENCY STOP BUTTON WITH KEY



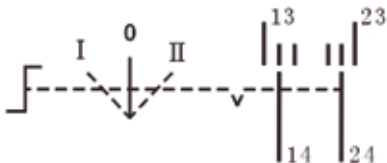
REFERENCE	CONTREX I03 IGRP
SIZE	95x86x76
IT CONTAINS	• Emergency stop button with key NO+NC • Polyamide M20 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I040GRP. EMERGENCY STOP BUTTON WITH KEY



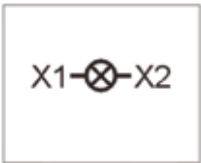
REFERENCE	CONTREX I040GRP
SIZE	95x86x76
IT CONTAINS	• Emergency stop button with key NO+NC • Polyamide M20 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I050GRP. CONTREX 3-POSITION SELECTOR



REFERENCE	CONTREX I050GRP
SIZE	95x86x76
IT CONTAINS	• 3-position selector • Polyamide M20 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I060GRP. PILOT WHITE LIGHT

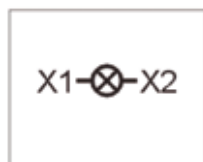


REFERENCE	CONTREX I060GRP
SIZE	95x86x76
IT CONTAINS	• Pilot white light • Polyamide M20 cable gland for non armored cable. • Optional other materials, for armored cable,...



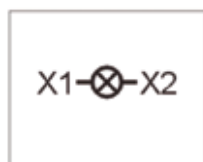
PRE-ASSEMBLED POLYESTER CONTROL BOX **CONTREX-GRP SERIES**

CONTREX I061GRP. BRIGHT GREEN



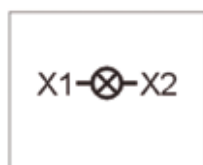
REFERENCE	CONTREX I061GRP
SIZE	95x86x76
IT CONTAINS	• Green pilot light • Polyamide M20 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I062GRP. BRIGHT RED



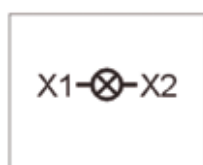
REFERENCE	CONTREX I062GRP
SIZE	95x86x76
IT CONTAINS	• Red pilot light • Polyamide M20 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I063GRP. BRIGHT YELLOW



REFERENCE	CONTREX I063GRP
SIZE	95x86x76
IT CONTAINS	• Yellow pilot light • Polyamide M20 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I064GRP. BRIGHT BLUE

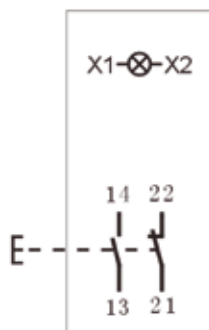


REFERENCE	CONTREX I064GRP
SIZE	95x86x76
IT CONTAINS	• Pilot blue light • Polyamide M20 cable gland for non armored cable. • Optional other materials, for armored cable,...



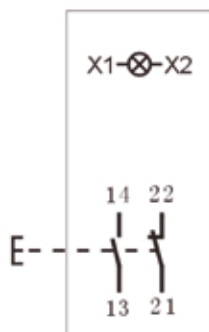
PRE-ASSEMBLED POLYESTER CONTROL BOX **CONTREX-GRP SERIES**

CONTREX I070GRP. CONTREX BRIGHT WHITE BUTTON NC



REFERENCE	CONTREX I070GRP
SIZE	138x86x76
IT CONTAINS	- Bright white button NC - Polyamide M25 cable gland for non armored cable. - Optional other materials, for armored cable,...

CONTREX I071GRP. CONTREX BRIGHT GREEN BUTTON NC



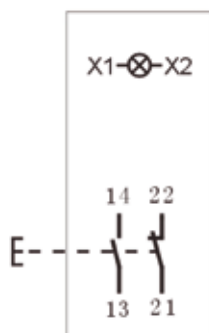
REFERENCE	CONTREX I071GRP
SIZE	138x86x76
IT CONTAINS	- Bright green button NC - Polyamide M25 cable gland for non armored cable. - Optional other materials, for armored cable,...

CONTREX I072GRP. CONTREX BRIGHT RED BUTTON NC



REFERENCE	CONTREX I072GRP
SIZE	138x86x76
IT CONTAINS	- Bright red button NC - Polyamide M25 cable gland for non armored cable. - Optional other materials, for armored cable,...

CONTREX I073GRP. CONTREX BRIGHT YELLOW BUTTON NC

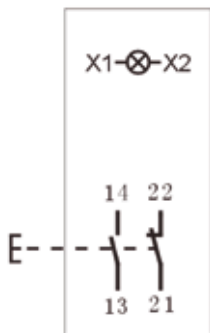


REFERENCE	CONTREX I073GRP
SIZE	138x86x76
IT CONTAINS	- Bright yellow button NC - Polyamide M25 cable gland for non armored cable. - Optional other materials, for armored cable,...



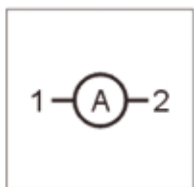
PRE-ASSEMBLED POLYESTER CONTROL BOX **CONTREX-GRP SERIES**

CONTREX I074GRP. BRIGHT BLUE BUTTON NC



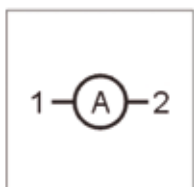
REFERENCE	CONTREXI074GRP
SIZE	135x86x76
IT CONTAINS	• Bright blue and button NC • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I100GRP. AMMETER 1A



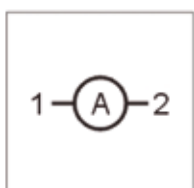
REFERENCE	CONTREXI100GRP
SIZE	135x86x76
IT CONTAINS	• Ammeter 1A • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I101GRP. AMMETER 4A



REFERENCE	CONTREXI101GRP
SIZE	135x86x76
IT CONTAINS	• Ammeter 4A • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I102GRP. AMMETER 5A

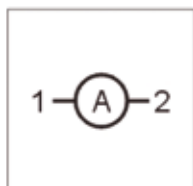


REFERENCE	CONTREXI102GRP
SIZE	135x86x76
IT CONTAINS	• Ammeter 5A • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...



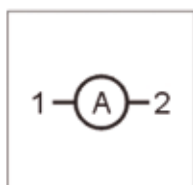
PRE-ASSEMBLED POLYESTER CONTROL BOX **CONTREX-GRP SERIES**

CONTREX I103GRP. AMMETER 10A



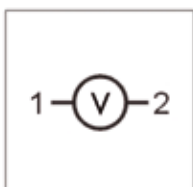
REFERENCE	CONTREX I103GRP
SIZE	135x86x76
IT CONTAINS	• Ammeter 10A • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I104GRP. AMMETER 15A



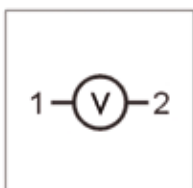
REFERENCE	CONTREX I104GRP
SIZE	135x86x76
IT CONTAINS	• Ammeter 15A • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I200GRP. VOLTMETER 25V



REFERENCE	CONTREX I200GRP
SIZE	135x86x76
IT CONTAINS	• Voltmeter 25V • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I201GRP. VOLTMETER 40V

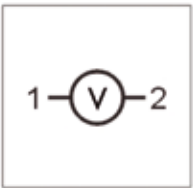


REFERENCE	CONTREX I201GRP
SIZE	135x86x76
IT CONTAINS	• Voltmeter 40V • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...



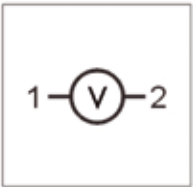
PRE-ASSEMBLED POLYESTER CONTROL BOX **CONTREX-GRP SERIES**

CONTREX I202GRP. VOLTMETER 150V



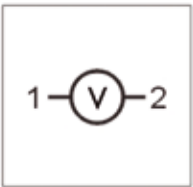
REFERENCE	CONTREXI202GRP
SIZE	135x86x76
IT CONTAINS	• Voltmeter 150V • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I203GRP. VOLTMETER 250V



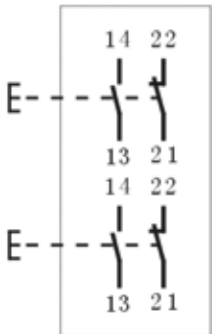
REFERENCE	CONTREXI203GRP
SIZE	135x86x76
IT CONTAINS	• Voltmeter 250V • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX I204GRP. VOLTMETER 500V



REFERENCE	CONTREXI204GRP
SIZE	135x86x76
IT CONTAINS	• Voltmeter 500V • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX 2010GRP. 2 PUSHBUTTONS, START AND STOP



REFERENCE	CONTREX2010GRP
SIZE	138x86x76
IT CONTAINS	• Pushbuttons start NO-NC • Pushbuttons stop NO-NC • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...



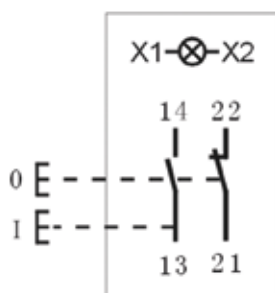
PRE-ASSEMBLED POLYESTER CONTROL BOX **CONTREX-GRP SERIES**

CONTREX 2020GRP. GREEN PILOT AND PUSHBUTTONS STOP



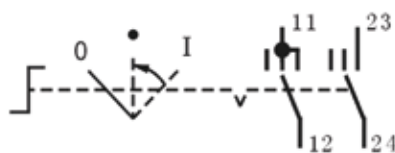
REFERENCE	CONTREX2020GRP
SIZE	135x86x76
IT CONTAINS	• Pilot green • Pushbutton stop NO + NC • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX 2030GRP. GREEN LAMP AND DOUBLE START-STOP BUTTON



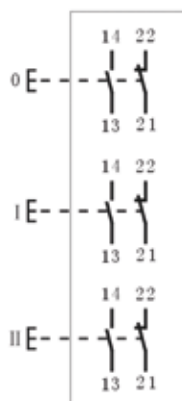
REFERENCE	CONTREX2030GRP
SIZE	135x86x76
IT CONTAINS	• Pilot green • Double pushbutton NO + NC • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX 2100GRP. 5A AMMETER AND SELECTOR 3 POSITION



REFERENCE	CONTREX2100GRP
SIZE	175x86x76
IT CONTAINS	• Ammeter 5A • 3 position selector NC + NO • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...

CONTREX 3010GRP. 3 BUTTONS

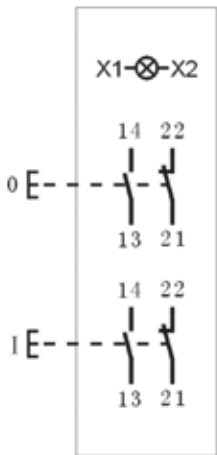


REFERENCE	CONTREX3010GRP
SIZE	175x86x76
IT CONTAINS	• Pushbutton green NO + NC • Pushbutton rojo NO + NC • Pushbutton amarillo NO + NC • Polyamide M25 cable gland for non armored cable. • Optional other materials, for armored cable,...



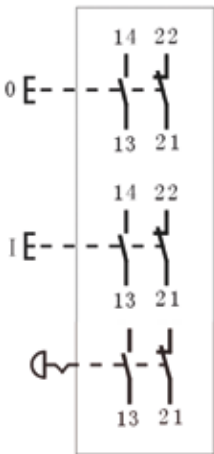
PRE-ASSEMBLED POLYESTER CONTROL BOX **CONTREX-GRP SERIES**

CONTREX 3020GRP. 1 PILOT LIGHT AND 2 PUSHBUTTON



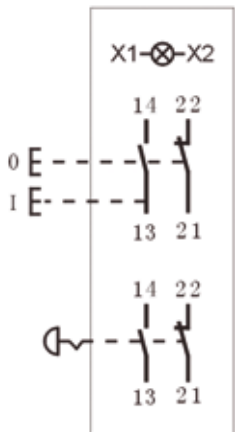
REFERENCE	CONTREX3020GRP
SIZE	175x86x76
IT CONTAINS	• Pilot green • Pushbutton stop NC + NO • Pushbutton start NC + NO • Polyamide M25 cable gland for non armored cable • Options other materials, for armored cable...

CONTREX 3030GRP. 3 BUTTONS



REFERENCE	CONTREX3030GRP
SIZE	175x86x76
IT CONTAINS	• Pushbutton start • Pushbutton stop NC + NO • Pushbutton of emergency NC + NO • Polyamide M25 cable gland for non armored cable • Options other materials, for armored cable...

CONTREX 3040GRP. 1 PILOT LIGHT, DOUBLE PUSHBUTTON AND BUTTON OF EMERGENCY

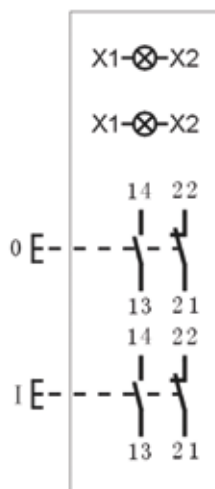


REFERENCE	CONTREX3040GRP
SIZE	175x86x76
IT CONTAINS	• Pilot green • Double pushbutton NC + NO • Button of emergency NC + NO • Polyamide M25 cable gland for non armored cable • Options other materials, for armored cable...



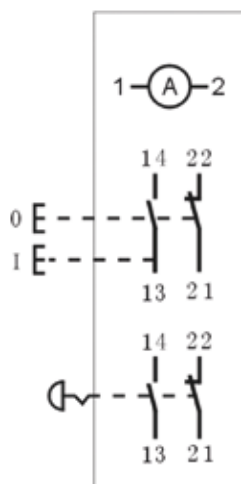
PRE-ASSEMBLED POLYESTER CONTROL BOX **CONTREX-GRP SERIES**

CONTREX 4010GRP. 2 PILOTS LIGHT AND 2 PUSHBUTTON



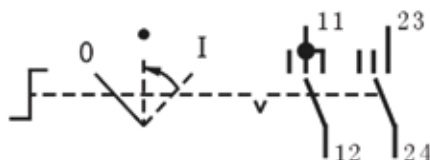
REFERENCE	CONTREX4010GRP
SIZE	215x100x76
IT CONTAINS	• Pilot red • Pilot green • Pushbutton stop NC + NO • Pushbutton start NC + NO • Polyamide M25 cable gland for non armored cable • Options other materials, for armored cable...

CONTREX 4020GRP. AMMETER, DOUBLE PUSHBUTTON AND BUTTON OF EMERGENCY



REFERENCE	CONTREX4020GRP
SIZE	215x100x76
IT CONTAINS	• Ammeter 5A • Double pushbutton NC + NO • Pushbutton of emergency NC + NO • Polyamide M25 cable gland for non armored cable • Options other materials, for armored cable...

CONTREX 4030GRP. AMMETER, PILOTS LIGHT AND 3 POSITION SELECTOR



REFERENCE	CONTREX4030GRP
SIZE	215x100x76
IT CONTAINS	• Ammeter 5A • Pilot green • 3 position selector NC + NO • Polyamide M25 cable gland for non armored cable • Options other materials, for armored cable...



Zones I, 2, 21 and 22

PUSHBUTTONS AND ACTUATORS FOR IN ATEX CABINETS INSTALLATION

Select the Model
and Discover Multiple Options



PUSH BUTTON

Each emergency button has multiple configuration options.

- Simple push button
- Double push button
- Bright LED technology push button

We have a safety latch for the push button.



Push button 2NO
red O rear mounted

REFERENCE

PB1003HT2NO



Dual push button 1NC/1NO
green/red rear mounted

REFERENCE

PB20023TNCNO



Push button light
NC rear mounted

REFERENCE

PBSL3TNC



FOR MORE INFORMATION CLICK HERE





PUSHBUTTONS AND ACTUATORS FOR IN ATEX CABINETS INSTALLATION

CONFIGURATION OPTIONS FOR BUTTONS

Select each table features need to form the reference

PUSH BUTTON

PB100XXXX · SIMPLE

COLOUR | CONTACT
TEXT | MOUNTING
BUTTON

PB200XXXX · DOUBLE

COLOUR 1 | CONTACT
COLOUR 2 | MOUNTING

COLOUR	
1	WHITE
2	GREEN
3	RED
4	YELLOW
5	BLACK

TEXT IN BUTTON	
A	START
B	STOP
H	O
J	ON
K	OFF
G	I
L	VOID

MOUNT WITH SCREWS TERMINATION	
C	LANE
T	REAR MOUNTING

CONTACT	
NCNO	I CLOSE I OPEN
2NO	DOUBLE OPEN
2NC	DOUBLE CLOSE



Stopping plug: seal unused aperture on the front panel

REFERENCE
STOPPLUG

PUSH BUTTON LIGHT

PBSLXXX · LIGHT

COLOUR | CONTACT
MOUNTING

COLOUR	
1	WHITE
2	GREEN
3	RED
4	YELLOW
6	BLACK

MOUNTING	
C	LANE
T	REAR MOUNTING

CONTACT	
NO	OPEN
NC	CLOSE

PUSH BUTTON WITH KEY

PB300XX · WITH KEY

CONTACT
MOUNTING

MOUNTING	
C	LANE
T	REAR MOUNTING

CONTACT	
NCNO	I CLOSE I OPEN
2NO	DOUBLE OPEN
2NC	DOUBLE CLOSE



Safety latch for push button

REFERENCE
SAFEPB

PUSHBUTTONS AND ACTUATORS FOR IN ATEX CABINETS INSTALLATION

MUSHROOM

Each emergency button has multiple configuration options.

- Mushroom push
- Emergency mushroom push/pull
- Emergency mushroom with key

We have safety latch for mushroom.



Example



Emergency mushroom
1NC/1NO rear mounted



Key release mushroom
2NC rear mounted



Push mushroom
rear mounted



Safety latch
for mushroom

REFERENCES	DESCRIPTION
MH100CNCNO	Mushroom push mounting rail. 1 close 1 open
MH100C2NO	Mushroom push mounting rail. Double open
MH100C2NC	Mushroom push mounting rail. Double close
MH100TNCNO	Mushroom push rear mounting. 1 close 1 open
MH100T2NO	Mushroom push rear mounting. Double open
MH100T2NC	Mushroom push rear mounting. Double close
MH200CNCNO	Mushroom push/pull mounting rail. 1 close 1
MH200C2NO	Mushroom push/pull mounting rail. Double open
MH200C2NC	Mushroom push/pull mounting rail. Double close
MH200TNCNO	Mushroom push/pull rear mounting. 1 close 1
MH200T2NO	Mushroom push/pull rear mounting. Double open
MH200T2NC	Mushroom push/pull rear mounting. Double close
MH300CNCNO	Key release mushroom mounting rail 1 close 1
MH300C2NO	Key release mushroom mounting rail Double open
MH300C2NC	Key release mushroom mounting rail. Double close
MH300TNCNO	Key release mushroom. Rear mounting. 1 close 1
MH300T2NO	Key release mushroom. Rear mounting. Double open
MH300T2NC	Key release mushroom. Rear mounting. Double close

REFERENCE	DESCRIPTION
SAFEMH	Safety latch for mushroom



PUSHBUTTONS AND ACTUATORS FOR IN ATEX CABINETS INSTALLATION

SELECTORS

Each selector has multiple configuration options.

- 2 position selector
- 3 position selector

Padlock closure is available for ø60mm selectors. Add "LOCK" to the reference.



Example

Selector 2 and 3 positions



REFERENCE	NOMBRE PRODUCTO
SLC200XX	Selector 2 positions ø39mm
SLC201XX	Selector de 2 positions ø60mm
SLC300XX	Selector de 3 positions ø39mm
SLC301XX	Selector de 3 positions ø60mm
Padlock closure	Add "LOCK" to the reference



Selector 3 positions i 0 ii rear mounted

REFERENCE

SLC300AC



Selector 3 positions I -> 0 <II rear mounted

REFERENCE

SLC300DT

CONFIGURATION OPTIONS FOR SELECTORS

Select each table features need to form the reference

SELECTOR

SLC200XX · 2 POSITIONS Ø39mm

SLC201XX · 2 POSITIONS Ø60mm

MOUNTING
POSITION

POSITION	
A	○ I
B	I II

MOUNTING SCREW TERMINATION	
C	RAIL
T	REAR MOUNTED

PADLOCK CLOSURE Add "LOCK" to the reference

SLC300XX · 3 POSITIONS Ø39mm

SLC301XX · 3 POSITIONS Ø60mm

MOUNTING
POSITION

POSITION	
C	RAIL
T	REAR MOUNTED

MOUNTING SCREW TERMINATION	
A	I ○ II
B	○ I II
C	○ > I < II
D	I > ○ < II

PADLOCK CLOSURE Add "LOCK" to the reference

PUSHBUTTONS AND ACTUATORS FOR IN ATEX CABINETS INSTALLATION

LED LIGHT

Each model has multiple options configuration.



Bright yellow
rear mounting



REFERENCES	DESCRIPTION
SL1C	White pilot light, rail mounting
SL2C	Green pilot light, rail mounting
SL3C	Red pilot light, rail mounting
SL4C	Yellow pilot light, rail mounting
SL6C	Blue pilot light, rail mounting
SL1T	White pilot light, rear mounted
SL2T	Green pilot light, rear mounted
SL3T	Red pilot light, rear mounted
SL4T	Yellow pilot light, rear mounted
SL6T	Blue pilot light, rear mounted

VOLTMETERS



Voltmeter
0-500V

REFERENCES	DESCRIPTION
VOLT25	Voltmeter 0-25V
VOLT40	Voltmeter 0-40V
VOLT50	Voltmeter 0-150V
VOLT75	Voltmeter 0-250V
VOLT100	Voltmeter 0-500V

AMMETERS



Ammeter
0-500V

REFERENCES	DESCRIPTION
AMP25	Ammeters 0-2A
AMP40	Ammeters 0-4A
AMP50	Ammeters 0-5A
AMP75	Ammeters 0-10A
AMP100	Ammeters 0-15A

LIMIT SWITCH

REFERENCE

MVLC261 IEx





PUSHBUTTONS AND ACTUATORS FOR IN ATEX CABINETS INSTALLATION

TECHNICAL AND ELECTRICAL CHARACTERISTICS

LIGHT MODULE



LIGHT MODULE	
Terminals	2 x 2,5 mm ²
Rated voltage	10V - 28V AC/DC (Ex de IIC Gb)
	20V - 250V AC/DC (Ex de IIC Gb)*
	250V - 400V AC (Ex de IIC Gb)
	10V - 28V AC/DC (Ex ia IIC Ga)
Light source	LED
Consumption	P _{max} ≤ 1 W
Electrical life	100.000 hours
Temperature	-40 ≤ Ta ≤ +55 °C
Normative	Zones I and 2
	Ex de IIC Gb - Ex de IIC Ga
	II 2G Ex de IIC Gb - II 1G Ex ia IIC Ga
	IEC60079 - EN60079

* Standard rated voltage, other voltages available upon request

LIGHT	
Material	Polyamide
Protection	IP66
Temperature	-40 ≤ Ta ≤ +55 °C
Normative	Zones I, 2, 21 and 22
	Ex e IIC Gb - Ex tb IIIC Db
	II 2GD Ex e IIC Gb Ex tb IIIC Db
	IEC60079 - EN60079

PUSH BUTTON LIGHT MODULE

PUSH BUTTON LIGHT	
Material	Polyamide
Protection	IP66
Temperature	-40 ≤ Ta ≤ +55 °C
Normative	Zones I, 2, 21 and 22
	Ex e IIC Gb - Ex tb IIIC Db
	II 2GD Ex e IIC Gb Ex tb IIIC Db
	IEC60079 - EN60079

PUSH BUTTON LIGHT MODULE	
Terminals	2 x 2,5 mm ²
Button	Rated voltage: AC250V/10A
	Rated current: DC24V/1A
	Electrical life: 300.000 hours
Signal lamp	Light source: LED
	Consumption: P _{max} ≤ 1 W
	Rated voltage: 20V - 250V AC/DC
	Rated voltage: 10V - 28V AC/DC
Temperature	Electrical life: 100.000 hours
	-55 ≤ Ta ≤ +60 °C
Normative	Zones I and 2
	Ex de IIC Gb - II 2G Ex de IIC Gb
	IEC60079 - EN60079



PUSH BUTTON AND SELECTOR MODULE



Module 2 poles



Module 4 poles

PUSH BUTTON AND SELECTOR MODULE	
Terminals	2 x 2,5 mm ²
Rated voltage	AC400V/16A
Rated current	DC110V/1A
Consumption	P _{max} ≤ 1 W
Electrical life	100.000 hours
Temperature	-40 ≤ Ta ≤ +55 °C
Normative	Zones I and 2
	Ex de IIC Gb
	II 2G Ex de IIC Gb
	IEC60079 - EN60079

PUSH BUTTON AND SELECTOR	
Material	Polyamide
Protection	IP66
Temperature	-40 ≤ Ta ≤ +55 °C
Normative	Zones I, 2, 21 and 22
	Ex e IIC Gb - Ex tb IIIC Db
	II 2GD Ex e IIC Gb Ex tb IIIC Db
	IEC60079 - EN60079



Module 2 poles



Module 4 poles

**Zonas 1, 2, 21 and 22**

EX LIGHTING DISTRIBUTION PANEL BOARDS

Feed, Protect, Control and Distribute Illumination



Ex lighting distribution panel boards with Atex & IECEx protection are specially designed to store electrical control components for the distribution of energy in hazardous areas. These Ex lighting panels boards consist of a robust, watertight enclosure, made of stainless steel (304L or 316L), which protects electrical circuits from water and dust, and allows them to be used in Atex zones 1, 2, 21 and 22. It also has corrosion protection and (IK 10) resistance degree against any impacts. Ex lighting distribution panel boards are equipped with Atex & IECEx electrical elements, designed to operate safely in explosive atmospheres. Those electrical elements are pre installed inside, without needing to re-test in a laboratory once assembled.

**FOR MORE INFORMATION CLICK HERE**

CERTIFICATION

Atex & IECEx directive and regulations:

- Atex Directive 2014/34/UE
- Certificate of the envelope as a component:
 - LOM I4ATEX3026U
- Equipment Certificate:
 - LOM I7ATEX1012
- Quality certificate:
 - LOM I4ATEX9050
- IP66 according to IEC Standard EN 62208 and EN 60529
- Complies with RoHs regulations
- Degree of resistance against impact IK10 according to standard IEC62208 and EN62262
 - EN 60079-7:2007
 - EN 60079-31:2014
 - UNE-EN 60079-0:2011
 - UNE-EN 60079-1:2015
 - UNE-EN 60079-5:2008
 - UNE-EN 60079-7:2007
 - UNE-EN 60079-18:2016
 - UNE-EN 60079-25:2010
 - UNE-EN 60079-31:2014



CABLE GLANDS ATEX



**Zones I, 2, 21 and 22**

CABLE GLANDS EX D/E

ATEX

:xamples

The Most Powerful Security

Cable glands ATEX made by Delvalle are used for passing, holding and compressing cables between two compartments, such as junction boxes, cabinets, electrical boxes or devices requiring sealing against dust, dirt or water.

[➔ FOR MORE INFORMATION CLICK HERE](#)



CABLE GLANDS EX D/E

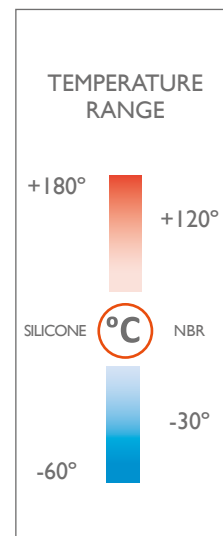
ATEX

CABLE GLANDS UNARMoured IP66 - IP68

CABLE GLANDS UNARMoured EX D / EX E IP66 - IP68

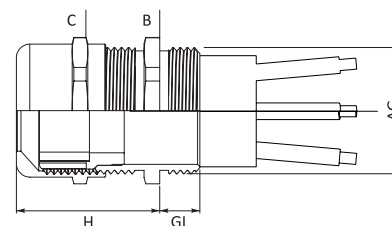


- Material:
 - Nickel-plated brass brass*
 - Stainless steel AISI303L**
 - Stainless steel AISI304L**
 - Stainless steel AISI316L**
- O-ring: NBR or silicone (optional)
- Normative and marking:
 - II 2G Exd/e IIC Gb II ID Ex ta IIIC Da I M2 Exd/e I Mb
 - EN 60079-0:2009, 60079-1:2007, 60079-31:2009
- Protection class: IP66 / IP68 (EN 60529)
- Application area:
 - Zones I, 2, 21 and 22
 - Group Gas IIA, IIB and IIC



Reference configuration. Examples: MCNAE.M16.SI.S6 or MCNAD.N1-1/4.NB.S4

1	2	3	4
Type	Size	O-ring	Material
MCNAD MCNAE	M: Entry thread N: Conic thread	NB: NBR SI: Silicone (optional)	ON: Nickel-plated brass S3: Stainless steel AISI303L S4: Stainless steel AISI304L S6: Stainless steel AISI 316L
MCNAE	M16	SI	S6



REFERENCES CABLE GLANDS UNARMoured EX D / EX E									
CABLE GLANDS UNARMoured EX D / EX E	SIZE	ENTRY THREAD ISO 262 (AG)	CONIC THREAD NPT (AG)	CLAMPING RANGE (mm)		GL (mm)	B (mm)		MINIMUM
				MIN.	MAX.		B	C	
MCNAD	M12 - N1/4	M12x1,5	1/4"	3	6,5	15	14	14	50* 25**
MCNAD	M16 - N3/8	M16x1,5	3/8"	4	8	15	18	17	
MCNAD	M20 - N1/2	M20x1,5	1/2"	6	12	15	22	22	
MCNAD	M25S - N3/4S	M25Sx1,5	3/4"	10	14	15	27	24	
MCNAD	M25 - N3/4	M25x1,5	3/4"	13	18	15	30	30	
MCNAD	M32 - N1	M32x1,5	1"	13	18	15	34	30	25* 10**
MCNAD	M40 - N1-1/4	M40x1,5	1 1/4"	18	25	15	43	40	
MCNAD	M50 - N1-1/2	M50x1,5	1 1/2"	22	32	15	55	50	
MCNAD	M63S - N2S	M63Sx1,5	2"	33	44	15	68	64	
MCNAD	M63 - N2	M63x1,5	2"	45	55	15	70	75	
MCNAD	M75S - N2-1/2S	M75Sx1,5	2 1/2"	45	55	15	85	75	10* 5**
MCNAD	M75 - N2-1/2	M75x1,5	2 1/2"	50	63	20	90	90	
MCNAD	M80 - N3S	M80x2	3"	50	63	20	90	90	
MCNAD	M90 - N3	M90x2	3"	60	70	20	100	100	
MCNAE	M12 - N1/4	M12x1,5	1/4"	3	6,5	6	14	14	50* 25**
MCNAE	M16 - N3/8	M16x1,5	3/8"	4	8	7	18	17	
MCNAE	M20 - N1/2	M20x1,5	1/2"	6	12	8	22	22	
MCNAE	M25S - N3/4S	M25Sx1,5	3/4"	10	14	8	27	24	
MCNAE	M25 - N3/4	M25x1,5	3/4"	13	18	8	30	30	
MCNAE	M32 - N1	M32x1,5	1"	13	18	9	34	30	25* 10**
MCNAE	M40 - N1-1/4	M40x1,5	1 1/4"	18	25	9	43	40	
MCNAE	M50 - N1-1/2	M50x1,5	1 1/2"	22	32	9	55	50	
MCNAE	M63S - N2S	M63Sx1,5	2"	33	44	14	68	64	
MCNAE	M63 - N2	M63x1,5	2"	45	55	15	70	75	
MCNAE	M75S - N2-1/2S	M75Sx1,5	2 1/2"	45	55	15	85	75	10* 5**
MCNAE	M75 - N2-1/2	M75x1,5	2 1/2"	50	63	20	90	90	
MCNAE	M80 - N3S	M80x2	3"	50	63	20	90	90	
MCNAE	M90 - N3	M90x2	3"	60	70	20	100	100	

* Nickel-plated brass

** Stainless steel AISI303L - Stainless steel AISI304L - Stainless steel AISI316L

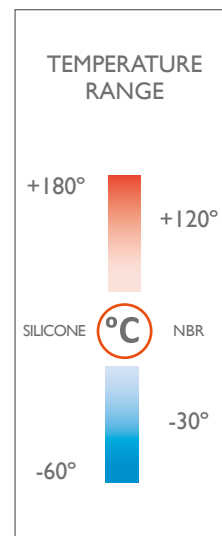


CABLE GLANDS EX D/E

CABLE GLANDS UNARMoured EX D/E IP66 - IP68

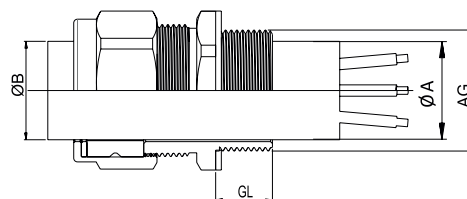


- Material:
 - Nickel-plated brass*
 - Stainless steel AISI303L**
 - Stainless steel AISI304L**
 - Stainless steel AISI316L**
- O-ring: NBR or silicone (optional)
- Normative and marking:
 - II 2G Exd/e IIC Gb II 1D Ex ta IIC Da I M2 Exd/e I Mb
 - EN 60079-0:2009, 60079-1:2007, 60079-31:2009
- Protection class: IP66 / IP68 (EN 60529)
- Application area:
 - Zones I, 2, 21 and 22
 - Group Gas IIA, IIB and IIC



Reference configuration. Examples: MCNA.MI6.SI.S6 or MCNA.NI/2S.NB.ON

1	2	3	4
Type	Size	O-ring	Material
MCNA	M: Entry thread N: Conic thread	NB: NBR SI: Silicone (optional)	ON: Nickel-plated brass S3: Stainless steel AISI303L S4: Stainless steel AISI304L S6: Stainless steel AISI 316L
MCNA	MI6	SI	S6



REFERENCES CABLE GLANDS UNARMoured EX D/E

CABLE GLANDS UNARMoured EX D/E	SIZE	ENTRY THREAD ISO 262 (AG)	CONIC THREADS NPT (AG)	B		GL (MIN. mm)	(mm)		MINIMUM
				MIN.	MAX.		C	B	
MCNA	MI6 - NI/2S	M16x1,5	1/2"	6,1	11,6	15	20	24	50* 25**
MCNA	M20 - NI/2	M20x1,5	1/2"	9,5	15,9	15	24	24	
MCNA	M25 - N3/4	M25x1,5	3/4"	12,5	20,5	15	30	30	
MCNA	M32 - NI	M32x1,5	1"	18,2	26,2	15	38	38	
MCNA	M40 - NI 1/4	M40x1,5	1 1/4"	23,7	33,9	15	45	45	25* 10**
MCNA	M50 - NI 1/2	M50x1,5	1 1/2"	27,9	40,4	15	55	55	
MCNA	M63S - N2	M63Sx1,5	2"	40,4	51	15	70	70	
MCNA	M63 - N2 1/2	M63x1,5	2 1/2"	47,2	55,9	15	70	80	
MCNA	M75S - N2 1/2S	M75Sx1,5	2 1/2"	52,8	59	15	80	80	10* 5**
MCNA	M75 - N3	M75x1,5	3"	59,1	67,9	15	90	100	

* Nickel-plated brass

** Stainless steel AISI303L - Stainless steel AISI304L - Stainless steel AISI316L



CABLE GLANDS EX D/E

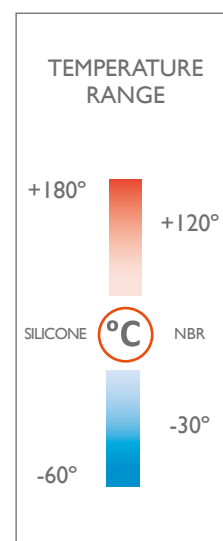
ATEX

CABLE GLANDS ARMoured EX D/E IP66 - IP68

CABLE GLANDS ARMoured EX D/E IP66 - IP68

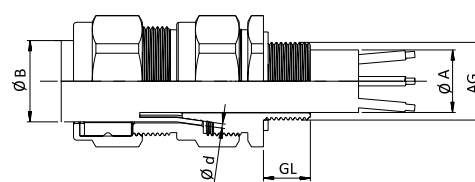


- Material:
 - Nickel-plated brass*
 - Stainless steel AISI303L**
 - Stainless steel AISI304L**
 - Stainless steel AISI316L**
- O-ring: NBR or silicone (optional)
- Normative and marking:
 - II 2G Exd/e IIC Gb II ID Ex ta IIIC Da I M2 Exd/e I Mb
 - EN 60079-0:2009, 60079-1:2007, 60079-31:2009
- Protection class: IP66 / IP68 (EN 60529)
- Application area:
 - Zones I, 2, 21 and 22
 - Group Gas IIA, IIB and IIC



Reference configuration. Examples: MVCGA I.M16.SI.S6 or MVCGA I.N3/4.NB.ON

1	2	3	4
Type MVCGA I	Size M : Entry thread N : Conic thread	O-ring NB : NBR SI : Silicone (optional)	Material ON : Nickel-plated brass S3 : Stainless steel AISI303L S4 : Stainless steel AISI304L S6 : Stainless steel AISI 316L
MVCGA I	M16	SI	S6



REFERENCES CABLE GLANDS ARMoured EX D/E											
CABLE GLANDS ARMoured EX D/E	SIZE	ENTRY THREAD ISO 262 (AG)	CONIC THREADS NPT (AG)	A (MIN.)	B		Ø D		GL (mm)	 (mm)	 MINIMUM
					MIN.	MAX.	MIN.	MAX.			
MVCGA I	M16 - N1/2SS	M16x1,5	1/2"	8,6	6,1	13,2	0,8	1,0	15	24	50* 25**
MVCGA I	M20S - N1/2S	M20Sx1,5	1/2"	11,6	9,5	15,9	0,8	1,25	15	24	
MVCGA I	M20 - N1/2	M20x1,5	1/2"	13,9	12,5	20,9	0,8	1,25	15	30	
MVCGA I	M25S - N3/4S	M25Sx1,5	3/4"	19,9	14	22	1,25	1,60	15	38	
MVCGA I	M25 - N3/4	M25x1,5	3/4"	19,9	18,2	26,2	1,25	1,60	15	38	
MVCGA I	M32 - N1	M32x1,5	1"	26,2	23,7	33,9	1,6	2,0	15	45	
MVCGA I	M40 - N1 1/4	M40x1,5	1 1/4"	33,9	27,9	40,4	1,6	2,0	15	55	25* 10**
MVCGA I	M50S - N1 1/2	M50Sx1,5	1 1/2"	38,1	35,2	46,7	2,0	2,5	15	60	
MVCGA I	M50 - N2S	M50x1,5	2"	44,0	40,4	53,1	2,0	2,5	15	70	
MVCGA I	M63S - N2	M63Sx1,5	2"	49,9	45,6	59,4	2,0	2,5	15	75	
MVCGA I	M63 - N2 1/2S	M63x1,5	2 1/2"	55,9	54,6	65,9	2,0	2,5	15	80	
MVCGA I	M75S - N2 1/2	M75Sx1,5	2 1/2"	61,9	59	72,1	2,0	2,5	15	90	10* 5**
MVCGA I	M75 - N3S	M75x1,5	3"	67,9	66,7	78,5	2,5	3,0	15	100	
MVCGA I	M90 - N3	M90x2,0	3"	79,9	76,2	90,4	3,0	3,5	15	115	
MVCGA I	M100	M100x2,0	-	90	86,1	101,5	3,15	4,0	15	123	
MVCGA I	M115	M115x2,0	-	97,9	101,5	110,3	3,15	4,0	15	133	
MVCGA I	M130	M130x2,0	-	114,9	114,2	123,3	3,15	4,0	15	146	

* Nickel-plated brass

** Stainless steel AISI303L - Stainless steel AISI304L - Stainless steel AISI316L



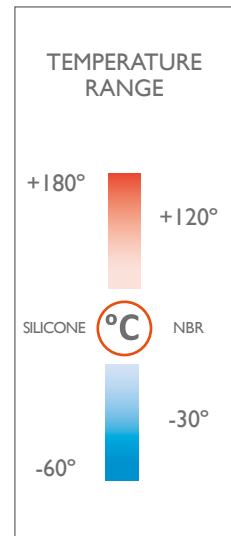
CABLE GLANDS EX D/E

ATEX

DOUBLE COMPRESSION CABLE GLANDS ARMoured EX D/E IP66 - IP68

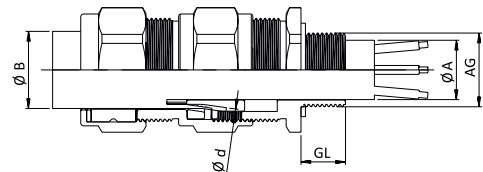


- Material:
 - Nickel-plated brass*
 - Stainless steel AISI303L**
 - Stainless steel AISI304L**
 - Stainless steel AISI316L**
- O-ring: NBR or silicone (optional)
- Normative and marking:
 - II 2G Exd/e IIC Gb II 1D Ex ta IIIC Da I M2 Exd/e I Mb
 - EN 60079-0:2009, 60079-1:2007, 60079-31:2009
- Protection class: IP66 / IP68 (EN 60529)
- Application area:
 - Zones I, 2, 21 and 22
 - Group Gas IIA, IIB and IIC



Reference configuration. Examples: MVCGA2.MI6.SI.S6 or MVCGA2.NI/2.NB.S3

1	2	3	4
Type	Size	O-ring	Material
MVCGA2	M: Entry thread N: Conic thread	NB: NBR SI: Silicone (optional)	ON: Nickel-plated brass S3: Stainless steel AISI303L S4: Stainless steel AISI304L S6: Stainless steel AISI 316L
MVCGA2	MI6	SI	S6



REFERENCES DOUBLE COMPRESSION CABLE GLANDS ARMoured EX D/E												
DOUBLE COMPRESSION CABLE GLANDS ARMoured EX D/E	SIZE	ENTRY THREAD ISO 262 (AG)	CONIC THREADS NPT (AG)	A		B		Ø D		GL (mm)	(mm)	MINIMUM
				MIN.	MAX.	MIN.	MAX.	MIN.	MAX.			
MVCGA2	M16 - NI/2SS	M16x1,5	1/2"	3,1	8,6	6,1	13,2	0,8	1,0	15	24	50* 25**
MVCGA2	M20S - NI/2S	M20Sx1,5	1/2"	6,1	11,6	9,5	15,9	0,8	1,25	15	24	
MVCGA2	M20 - NI/2	M20x1,5	1/2"	6,5	13,9	12,5	20,9	0,8	1,25	15	30	
MVCGA2	M25S - N3/4S	M25Sx1,5	3/4"	11,1	19,9	14	22	1,25	1,60	15	38	
MVCGA2	M25 - N3/4	M25x1,5	3/4"	11,1	19,9	18,2	26,2	1,25	1,60	15	38	
MVCGA2	M32 - NI	M32x1,5	1"	18,2	26,2	23,7	33,9	1,6	2,0	15	45	
MVCGA2	M40 - NI1/4	M40x1,5	1 1/4"	23,7	33,9	27,9	40,4	1,6	2,0	15	55	25* 10**
MVCGA2	M50S - NI1/2	M50Sx1,5	1 1/2"	29,5	38,1	35,2	46,7	2,0	2,5	15	60	
MVCGA2	M50 - N2S	M50x1,5	2"	35,6	44,0	40,4	53,1	2,0	2,5	15	70	
MVCGA2	M63S - N2	M63Sx1,5	2"	40,1	49,9	45,6	59,4	2,0	2,5	15	75	
MVCGA2	M63 - N21/2S	M63x1,5	2 1/2"	47,2	55,9	54,6	65,9	2,0	2,5	15	80	10* 5**
MVCGA2	M75S - N21/2	M75Sx1,5	2 1/2"	52,8	61,9	59	72,1	2,0	2,5	15	90	
MVCGA2	M75 - N3S	M75x1,5	3"	59,1	67,9	66,7	78,5	2,5	3,0	15	100	
MVCGA2	M90 - N3	M90x2,0	3"	66,6	79,9	76,2	90,4	3,0	3,5	15	115	
MVCGA2	M100	M100x2,0	-	76	90	86,1	101,5	3,15	4,0	15	123	
MVCGA2	M115	M115x2,0	-	86	97,9	101,5	110,3	3,15	4,0	15	133	
MVCGA2	M130	M130x2,0	-	97	114,9	114,2	123,3	3,15	4,0	15	146	

* Nickel-plated brass

** Stainless steel AISI303L - Stainless steel AISI304L - Stainless steel AISI316L



CABLE GLANDS EX D/E

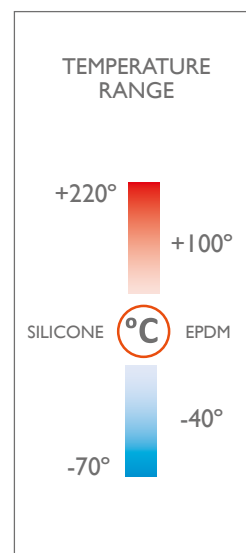
ATEX

BARRIER CABLE GLANDS UNARMoured CABLE IP66 - IP68

BARRIER CABLE GLANDS UNARMoured CABLE EX D IP66 - IP68



- Flameproof Ex d barrier cable glands sealed with sealing compound
- The sealing ring seals and blocks cable on the outer sheath
- Kit version includes complete series of the rubber seals accompanying the size
- Material:
 - Nickel-plated brass
 - Stainless steel AISI 316L
- O-ring: EPDM or Silicone (optional)
- Marking:
 - Ex e II Ex d IIC Ex tD
 - Ex e I Ex d I
 - I Exd IICx/2Exe IIX
- Protection class: IP66 - IP68
- Group II, category 2D, presence of combustible dust, zones 21 and 22
- Group II, category 2G, explosive gas atmosphere, zones 1 and 2
- Mine: Group I, category M2



COMPOUND APPLICATION / BARRIER

The treatment is composed by bi-syringe containing the two resin components, separated and already dosed for the mixing, which occurs when the components pass inside the mixer.

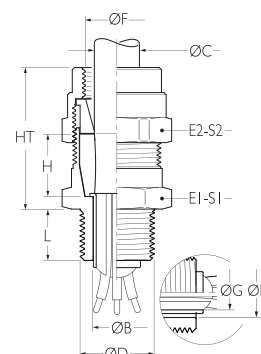


Available upon request solid compound, this epoxy resin is offered in two separate parts, it dries in 4 hours and can be installed in any orientation.

Reference configuration. Examples: MBCNA.MI6.KIT.EPS6 or MBCNA.G2I/2.KIT.SI.ON

1	+	2	+	3	+	4	+	5
Type		Code		Kit		O-ring		Material
MBCNA		M: ISO 262 G: ISO 228 PG: DIN 40430 NPT: NPT R: EN 10226		KIT		EP: EPDM SI: Silicone (optional)		ON: Nickel-plated brass S6: Stainless steel AISI 316L
MBCNA		MI6		KIT		EP		S6

ØG = ØB-2mm~





CABLE GLANDS EX D/E

ATEX

BARRIER CABLE GLANDS UNARMoured CABLE EX D IP66 - IP68

TYPE	SIZE	DIMENSIONS Ø MIN-MAX	CYLINDRICAL THREADS			CONIC THREADS		WEIGHT	ØF	HT	H				
			ISO 262	ISO 228	DIN 40430	NPT	EN 10226								
MBCNA	16 (EP)	4 - 7	M12x1,5 M16x1,5 M20x1,5	1/4" 3/8" 1/2"	PG7 PG9 PG11 PG13,5	1/4" 3/8" 1/2"	1/4" 3/8" 1/2"	94	16	38	20	24	26	24	26
MBCNA		7 - 10													
MBCNA	16 (SI)	4 - 6													
MBCNA		6 - 8													
MBCNA		8 - 10													
MBCNA	20 (EP-SI)	5,5 - 8	M16x1,5 M20x1,5 M25x1,5	1/2" 3/4"	PG11 PG13,5 PG16	1/2" 3/4"	1/2" 3/4"	156	20	40	20	30	33	32	35
MBCNA		8 - 10,5													
MBCNA		10,5 - 13													
MBCNA	25 (EP-SI)	8 - 10,5	M20x1,5 M25x1,5	3/4" 1"	PG16 PG21	3/4" 1"	3/4" 1"	185	25	40	20	35	38	36	39
MBCNA		10,5 - 13													
MBCNA		13 - 15,5													
MBCNA		15,5 - 18													
MBCNA	32 (EP-SI)	13 - 15,5	M25x1,5 M32x1,5	1"	PG21 PG29	1"	1"	340	32	52	25	42	47	45	49
MBCNA		15 - 18													
MBCNA		18 - 21													
MBCNA		21 - 24													
MBCNA	40 (EP-SI)	21 - 24	M40x1,5	1 1/4"	PG29	1 1/4"	1 1/4"	421	38	52	25	48	53	50	55
MBCNA		24 - 27													
MBCNA		27 - 30													
MBCNA	50 (EP-SI)	24 - 27	M40x1,5 M50x1,5	1 1/2"	PG36	1 1/2"	1 1/2"	537	44	52	25	55	60	57	62
MBCNA		27 - 30													
MBCNA		30 - 33													
MBCNA		33 - 36													
MBCNA	63 (EP-SI)	36 - 39	M50x1,5 M63x1,5	2"	PG42 PG48	2"	2"	749	54	52	25	68	74	67	72
MBCNA		39 - 42													
MBCNA		42 - 45													
MBCNA	75 (EP-SI)	45 - 48	M63x1,5 M75x1,5	2 1/2"	PG48	2 1/2"	2 1/2"	1085	65	52	25	80	86	80	88
MBCNA		48 - 51													
MBCNA		51 - 54													
MBCNA	90a (EP-SI)	54 - 58	M75x1,5 M90x2	3"	/	3"	3"	2125	74	67	30	100	107	100	107
MBCNA		58 - 62													
MBCNA	90b (EP-SI)	60 - 64						1759	80	67	30	100	107	100	107
MBCNA		64 - 68													

Available upon request



CABLE GLANDS EX D/E

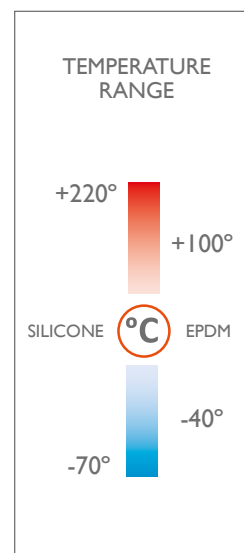
ATEX

BARRIER CABLE GLANDS ARMoured CABLE IP66 - IP68

BARRIER CABLE GLANDS ARMoured CABLE EX D IP66 - IP68



- Flameproof Ex d barrier cable glands sealed with sealing compound
- The sealing ring seals and blocks cable on the outer sheath
- Kit version includes complete series of the rubber seals accompanying the size
- Material:
 - Nickel-plated brass
 - Stainless steel AISI316L
- O-ring: EPDM or Silicone (optional)
- Marking:
 - Ex e II Ex d IIC Ex tD
 - Ex e I Ex d I
 - I Exd IICx/2Exe IIX
- Protection class: IP66 - IP68
- Group II, category 2D, presence of combustible dust, zones 21 and 22
- Group II, category 2G, explosive gas atmosphere, zones 1 and 2
- Mine: Group I, category M2



COMPOUND APPLICATION / BARRIER

The treatment is composed by bi-syringe containing the two resin components, separated and already dosed for the mixing, which occurs when the components pass inside the mixer.

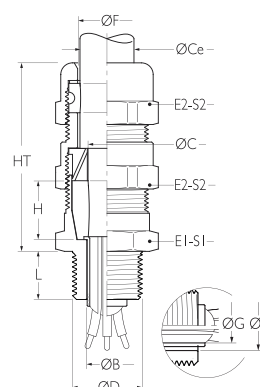


Available upon request solid compound, this epoxy resin is offered in two separate parts, it dries in 4 hours and can be installation any orientation.

Reference configuration. Examples: MBCA.MI6.KIT.EP.S6 or MBCA.G21/2.KIT.SI.ON

1	+	2	+	3	+	4	+	5
Type		Code		Kit		O-ring		Material
MBCA		M: ISO 262 G: ISO 228 PG: DIN 40430 NPT: NPT R: EN 10226		KIT		EP: EPDM SI: Silicone (optional)		ON: Nickel-plated brass S6: Stainless steel AISI 316L
MBCA		MI6		KIT		EP		S6

ØG = ØB-2mm~





CABLE GLANDS EX D/E

ATEX

BARRIER CABLE GLANDS ARMoured CABLE EX D IP66 - IP68

TYPE	SIZE	DIMENSIONS ØC MIN-MAX	DIMENSIONS ØCe MIN-MAX	CYLINDRICAL THREADS			CONIC THREADS		WEIGHT	ØF	HT	H									
				ISO 262	ISO 228	DIN 40430	NPT	ISO 75													
MBCA	16 (EP)	4 - 7	5 - 10 10 - 15	M12x1,5 M16x1,5 M20x1,5	1/4" 3/8" 1/2"	PG7 PG9 PG11 PG13,5	1/4" 3/8" 1/2"	1/4" 3/8" 1/2"	126	16	58	20	24	26	24	26					
MBCA		7 - 10																			
MBCA	16 (SI)	4 - 6																			
MBCA		6 - 8																			
MBCA		8 - 10																			
MBCA	20 (EP-SI)	5,5 - 8	10 - 15 14 - 19	M16x1,5 M20x1,5 M25x1,5	1/2" 3/4"	PG11 PG13,5 PG16	1/2" 3/4"	1/2" 3/4"	228	20	64	20	30	33	32	35					
MBCA		8 - 10,5																			
MBCA		10,5 - 13																			
MBCA	25 (EP-SI)	8 - 10,5	15 - 20 19 - 24	M20x1,5 M25x1,5	3/4" 1"	PG16 PG21	3/4" 1"	3/4" 1"	264	25	64	20	35	38	36	39					
MBCA		10,5 - 13																			
MBCA		13 - 15,5																			
MBNA		15,5 - 18																			
MBCA	32 (EP-SI)	13 - 15,5	20 - 26 25 - 31	M25x1,5 M32x1,5	1"	PG21 PG29	1"	1"	484	32	83	25	42	47	45	49					
MBCA		15 - 18																			
MBCA		18 - 21																			
MBCA		21 - 24																			
MBCA	40 (EP-SI)	21 - 24	26 - 32 31 - 37	M40x1,5	1 1/4"	PG29	1 1/4"	1 1/4"	576	38	83	25	48	53	50	55					
MBCA		24 - 27																			
MBCA		27 - 30																			
MBCA	50 (EP-SI)	24 - 27	31 - 37 36 - 43	M40x1,5 M50x1,5	1 1/2"	PG36	1 1/2"	1 1/2"	730	44	83	25	55	60	57	62					
MBCA		27 - 30																			
MBCA		30 - 33																			
MBCA		33 - 36																			
MBCA	63 (EP-SI)	36 - 39	42 - 48 47 - 53	M50x1,5 M63x1,5	2"	PG42 PG48	2"	2"	961	54	83	25	68	74	67	72					
MBCA		39 - 42																			
MBCA		42 - 45																			
MBCA	75 (EP-SI)	45 - 48	52 - 58 52 - 64	M63x1,5 M75x1,5	2 1/2"	PG48	2 1/2"	2 1/2"	1392	65	83	25	80	86	80	88					
MBCA		48 - 51																			
MBCA		51 - 54																			
MBCA	90a (EP-SI)	54 - 58	64 - 72	M75x1,5 M90x2	3"	/	3"	3"	3026	74	115	30	100	107	100	107					
MBCA		58 - 62																			
MBCA	90b (EP-SI)	60 - 64	70 - 78						2432	80	115	30	100	107	100	107					
MBCA		64 - 68																			

Available upon request



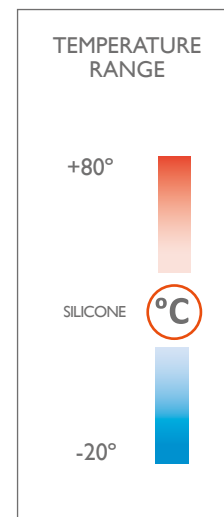
CABLE GLANDS EX D/E

CABLE GLANDS POLYAMIDE

CABLE GLANDS POLYAMIDE EX/E IP68

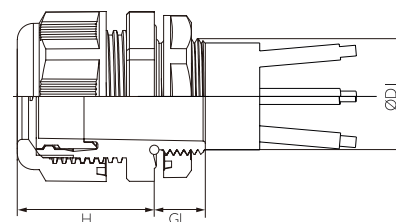


- Material: Polyamide (Nylon) - UL 94 V-2
- O-ring Silicone
- Features: V2 (UL94), halogen free, not containing any cadmium phosphorus, UV-resistance and anti-aging test
- Marking:
 - Ex e IIC Gb
 - Ex tD A2I IP68
- Protection class: IP68
- Application area:
 - Zones 1, 2, 21 and 22
 - Group Gas IIA, IIB and IIC



Reference configuration. Examples: MVCG.M16.EXE.NY or MVCG.M40.EXE.NY

1	+	2	+	3	+	4
Type		Size		Atex		Material
MVCG		M16		EXE		NY



REFERENCES CABLE GLANDS POLYAMIDE EX/E

CABLE GLANDS POLYAMIDE EX/E	SIZE	ENTRY THREAD ISO 262	CLAMPING RANGE		H (mm)	GL (mm)	 (mm)	 MINIMUM
			≥	≤				
MVCG	M12	M12x1,5	3	6,5	21	8	15	50
MVCG	M16	M16x1,5	5	10	25	8	22	
MVCG	M20	M20x1,5	10	14	28	9	27	
MVCG	M25	M25x1,5	13	18	31	11	33	
MVCG	M32	M32x1,5	18	25	37	11	42	25
MVCG	M40	M40x1,5	22	32	48	13	53	
MVCG	M50	M50x1,5	32	38	49	13	60	10
MVCG	M63	M63x1,5	37	44	49	14	65 / 68	

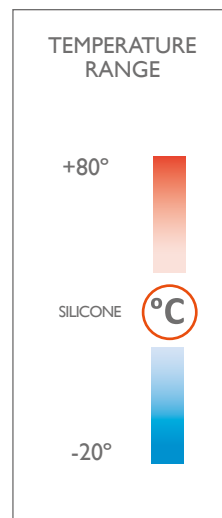
CABLE GLANDS EX D/E

ATEX

CABLE GLANDS ATEX INCREASED SECURITY POLYAMIDE EX/I IP68

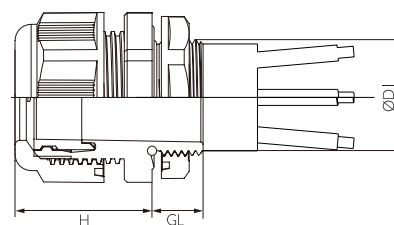


- Material: Polyamide (Nylon) - UL 94 V-2
- O-ring Silicone
- Features: V2 (UL94), halogen free, not containing any cadmium phosphorus, UV-resistance and anti-aging test
- Normativa y marcaje:
 - Ex e IIC Gb
 - Ex tD A2I IP68
- Protection class: IP68
- Application area:
 - Zones I, 2, 21 and 22
 - Group Gas IIA, IIB and IIC



Reference configuration. Examples: MVCG.M16.EX.AZ.NY or MVCG.M40.EX.AZ.NY

1	+	2	+	3	+	4
Type		Size		Atex		Material
MVCG		M16		EX.AZ		NY



REFERENCES CABLE GLANDS POLYAMIDE EX/I								
CABLE GLANDS POLYAMIDE EX/I	SIZE	ENTRY THREAD ISO 262	CLAMPING RANGE		H (mm)	GL (mm)	 (mm)	 MINIMUM
			≥	≤				
MVCG	M12	M12x1,5	3	6,5	21	8	15	50
MVCG	M16	M16x1,5	5	10	25	8	22	
MVCG	M20	M20x1,5	10	14	28	9	27	
MVCG	M25	M25x1,5	13	18	31	11	33	
MVCG	M32	M32x1,5	18	25	37	11	42	25
MVCG	M40	M40x1,5	22	32	48	13	53	
MVCG	M50	M50x1,5	32	38	49	13	60	10
MVCG	M63	M63x1,5	37	44	49	14	65 / 68	





CABLE GLANDS EX D/E

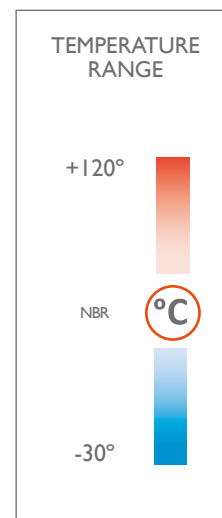
ATEX

PLUGS

STOPPER PLUG EX D/E IP66 - IP68

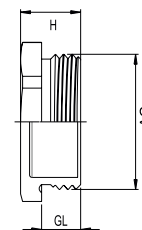
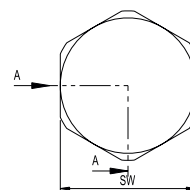


- Material:
 - Nickel-plated brass*
 - Stainless steel AISI303L**
 - Stainless steel AISI304L**
 - Stainless steel AISI316L**
- O-ring: NBR
- Normative and marking:
 - II 2G Exd/e IIC Gb II ID Ex ta IIIC Da I M2 Ex d/e I Mb
 - EN 60079-0 2009 /60079-1 2007/ 60079-31 2009
- Protection class: IP66 / IP68 (EN 60529)
- Application area:
 - Zones I, 2, 21 and 22
 - Group Gas IIA, IIB and IIC



Reference configuration. Examples: MVTC.M16.S6.EX or MVTX.N21/2.ON

1	2	3	4
Type MVTC	Size M: Entry thread N: Conic thread	Material ON: Nickel-plated brass S3: Stainless steel AISI303L S4: Stainless steel AISI304L S6: Stainless steel AISI 316L	Atex EX
MVTC	M16	S6	EX



REFERENCES STOPPER PLUG						
STOPPER PLUG	CODE	SIZE	GL (MIN. mm)	H (mm)	SW (mm)	MINIMUM
MVTC	M12	M12x1,5	15	22	17	25* 10**
MVTC	M16	M16x1,5	15	22	22	
MVTC	M20	M20x1,5	15	22	24	
MVTC	M25	M25x1,5	15	22	30	
MVTC	M32	M32x1,5	15	22	36	
MVTC	M40	M40x1,5	15	22	45	10* 5**
MVTC	M50	M50x1,5	15	22	55	
MVTC	M63	M63x1,5	15	22	70	
MVTC	M75	M75x1,5	15	22	80	5* 1**
MVTC	M90	M90x2	20	27	95	
MVTC	M100	M100x2	20	27	110	
MVTC	N1/4	NPT1/4"	15	22	15	25* 10**
MVTC	N3/8	NPT3/8"	15	22	20	
MVTC	N1/2	NPT1/2"	15	22	24	
MVTC	N3/4	NPT3/4"	15	22	27	
MVTC	N1	NPT1"	15	22	35	10* 5**
MVTC	N1 1/4	NPT1 1/4"	15	22	45	
MVTC	N1 1/2	NPT1 1/2"	15	22	50	
MVTC	N2	NPT2"	15	22	65	5* 1**
MVTC	N2 1/2	NPT2 1/2"	20	27	75	
MVTC	N3	NPT3"	20	27	90	
MVTC	N4	NPT4"	20	27	115	

* Nickel-plated brass

** Stainless steel AISI303L - Stainless steel AISI304L - Stainless steel AISI316L



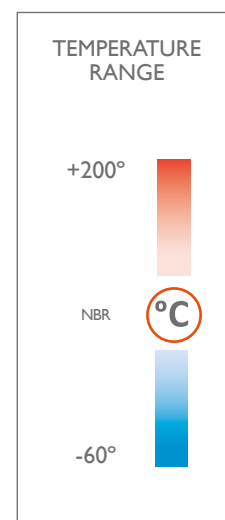
CABLE GLANDS EX D/E

ATEX

PLUG EX D/E IP66 - IP68

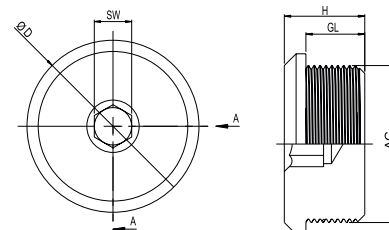


- Material:
 - Nickel-plated brass*
 - Stainless steel AISI303L**
 - Stainless steel AISI304L**
 - Stainless steel AISI316L**
- O-ring: NBR
- Normative and marking:
 - II 2G Exd/e IIC Gb II ID Ex ta IIIC Da I M2 Ex d/e I Mb
 - EN 60079-0 2009 /60079-1 2007/ 60079-31 2009
- Protection class: IP66 / IP68 (EN 60529)
- Application area:
 - Zones I, 2, 21 and 22
 - Group Gas IIA, IIB and IIC



Reference configuration. Examples: MVT.S6.EX.M16 or MVT.ON.EX.NI 1/2

1	+	2	+	3	+	4
Type		Material		Atex		Size
MVT		ON: Nickel-plated brass S3: Stainless steel AISI303L S4: Stainless steel AISI304L S6: Stainless steel AISI 316L		EX		M: Entry thread N: Conic thread
MVT		S6		EX		M16



REFERENCES PLUGS EX D/E							
PLUG	CODE	SIZE	GL (MIN. mm)	H (mm)	D (mm)	SW (mm)	MINIMUM
MVT	M12	M12x1,5	15	21	17	6	25* 10**
MVT	M16	M16x1,5	15	21	22	8	
MVT	M20	M20x1,5	15	21	27	10	
MVT	M25	M25x1,5	15	21	30	10	
MVT	M32	M32x1,5	15	21	36	10	10* 5**
MVT	M40	M40x1,5	15	21	45	10	
MVT	M50	M50x1,5	15	21	55	10	5* 1**
MVT	M63	M63x1,5	15	21	68	10	
MVT	M75	M75x1,5	15	21	80	14	
MVT	M90	M90x2	20	26	95	14	
MVT	M100	M100x2	20	26	108	14	
MVT	NI 1/4	NPT 1/4"	15	21	19	6	25* 10**
MVT	N3/8	NPT 3/8"	15	21	23	8	
MVT	NI 1/2	NPT 1/2"	15	21	27	10	
MVT	N3/4	NPT 3/4"	15	21	32	10	
MVT	NI	NPT 1"	15	21	39	10	10* 5**
MVT	NI 1/4	NPT 1 1/4"	15	21	48	10	
MVT	NI 1/2	NPT 1 1/2"	15	21	55	10	5* 1**
MVT	N2	NPT 2"	15	21	65	10	
MVT	N2 1/2	NPT 2 1/2"	20	26	78	14	
MVT	N3	NPT 3"	20	26	95	14	
MVT	N4	NPT 4"	20	26	120	14	

* Nickel-plated brass

** Stainless steel AISI303L - Stainless steel AISI304L - Stainless steel AISI316L



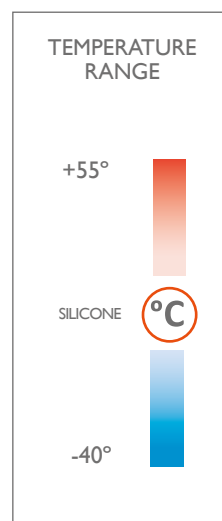
CABLE GLANDS EX D/E

ATEX

PLUG POLYAMIDE EX/E IP66 - IP68

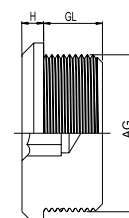
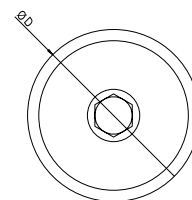


- Material: Polyamide (Nylon)
- O-ring: Silicone
- Features: water proof
- Normative and marking:
 - Ex eII Gb Ex tD A20
 - IEC - EN 60079
- Protection class: IP66
- Application area:
 - Zones 1, 2, 21 and 22
 - Group Gas IIA, IIB and IIC



Reference configuration. Examples: DVT.EX.M16.NY or DVT.EX.M40.N

1	+	2	+	3	+	4
Type		Atex		Size		Material
DVT		EX		M16		NY



REFERENCES PLUG POLYAMIDE EX/E						
PLUG POLYAMIDE EX/E	SIZE	ENTRY THREAD ISO 262 (AG)	GL	H	ØD	MINIMUM
DVT	M16	M16x1,5	14	4	22	100
DVT	M20	M20x1,5	15	4	26,4	
DVT	M25	M25x1,5	15	4	31,9	
DVT	M32	M32x1,5	16	5,5	39,6	50
DVT	M40	M40x1,5	16	5,5	50,6	
DVT	M50	M50x1,5	16	5,5	60,5	25
DVT	M 63	M63x1,5	19	7,5	74,8	



ATEX

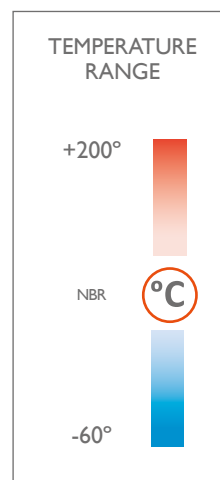
CABLE GLANDS EX D/E

ADAPTERS EX D/E IP66 - IP68

ADAPTER I EX D/E IP66 - IP68

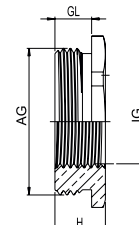
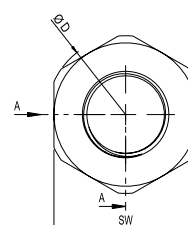


- Material:
 - Nickel-plated brass
 - Stainless steel AISI303L**
 - Stainless steel AISI304L**
 - Stainless steel AISI316L**
- O-ring: NBR
- Normative and marking:
 - II 2G Exd/e IIC Gb II ID Ex ta IIIC Da I M2 Ex d/e I Mb
 - EN 60079-0 2009 /60079-1 2007/ 60079-31 2009
- Protection class: IP66 / IP68 (EN 60529)
- Application area:
 - Zones I, 2, 21 and 22
 - Group Gas IIA, IIB and IIC



Reference configuration. Examples: MVADI.M40NI.S6 or MVADI.N3/8MI2.S4

1	+	2	+	3
Type		Code		Material
MVADI		M40NI		S6
ON: Nickel-plated brass S3: Stainless steel AISI303L S4: Stainless steel AISI304L S6: Stainless steel AISI 316L				



REFERENCES ADAPTER I EX D/E						
ADAPTER I	CODE	SIZE AG (M)	SIZE IG (F)	GL (MIN. mm)	H (mm)	SW (mm)
MVADI	M16NI/4	M16x1,5	NPT1/4"	15	19	22
MVADI	M20NI/4	M20x1,5	NPT1/4"	15	19	25
MVADI	M25NI/2	M25x1,5	NPT1/2"	15	19	30
MVADI	M32NI/2	M32x1,5	NPT1/2"	15	19	36
MVADI	M32NI3/4	M32x1,5	NPT3/4"	15	19	36
MVADI	M40NI3/4	M40x1,5	NPT3/4"	18	22	45
MVADI	M40NI	M40x1,5	NPT1"	18	22	45
MVADI	M50NI	M50x1,5	NPT1"	18	23	55
MVADI	M50NI1/4	M50x1,5	NPT1 1/4"	18	23	55
MVADI	M63NI1/4	M63x1,5	NPT1 1/4"	18	23	70
MVADI	M63NI1/2	M63x1,5	NPT1 1/2"	18	23	70
MVADI	M75NI1/2	M75x1,5	NPT1 1/2"	18	24	85
MVADI	M75N2	M75x1,5	NPT2"	18	24	85
MVADI	M90N2	M90x1,5	NPT2"	21	29	100
MVADI	M90N21/2	M90x1,5	NPT2 1/2"	21	29	100
MVADI	M110N21/2	M110x1,5	NPT2 1/2"	21	31	120
MVADI	M110N3	M110x1,5	NPT3"	21	31	120
MVADI	N3/8MMI2	NPT3/8"	M12x1,5	15	19	22
MVADI	N1/2MI2	NPT1/2"	M12x1,5	15	19	25
MVADI	N1/2MI6	NPT1/2"	M16x1,5	15	19	25
MVADI	N3/4MI6	NPT3/4"	M16x1,5	15	19	30
MVADI	N3/4M20	NPT3/4"	M20x1,5	15	19	30
MVADI	N1M20	NPT1"	M20x1,5	15	19	36
MVADI	N1M25	NPT1"	M25x1,5	15	19	36
MVADI	N11/4M25	NPT1 1/4"	M25x1,5	18	18	45
MVADI	N11/4M32	NPT1 1/4"	M32x1,5	18	18	45
MVADI	N11/2M32	NPT1 1/2"	M32x1,5	18	18	55
MVADI	N11/2M40	NPT1 1/2"	M40x1,5	18	18	55
MVADI	N2M40	NPT2"	M40x1,5	18	18	65
MVADI	N2M50	NPT2"	M50x1,5	18	18	65
MVADI	N21/2M50	NPT2 1/2"	M50x1,5	18	18	75
MVADI	N21/2M63	NPT2 1/2"	M63x1,5	18	18	75
MVADI	N3M63	NPT3"	M63x1,5	21	21	95
MVADI	N3M75	NPT3"	M75x1,5	21	21	95
MVADI	N4M75	NPT4"	M75x1,5	21	21	120
MVADI	N4M90	NPT4"	M90x1,5	21	21	120

Available upon request

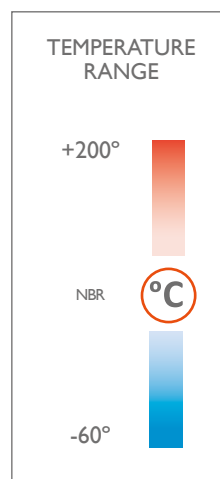


CABLE GLANDS EX D/E

ADAPTER EX D/E IP66 - IP68

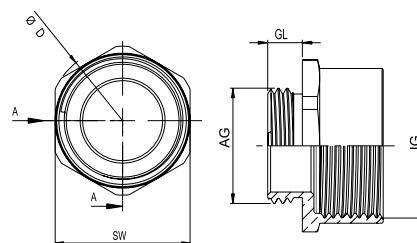
ATEX


- Material:
 - Nickel-plated brass
 - Stainless steel AISI303L**
 - Stainless steel AISI304L**
 - Stainless steel AISI316L**
- O-ring: NBR
- Normative and marking:
 - II 2G Exd/e IIC Gb II ID Ex ta IIIC Da I M2 Ex d/e I Mb
 - EN 60079-0 2009 /60079-1 2007/ 60079-31 2009
- Protection class: IP66 / IP68 (EN 60529)
- Application area:
 - Zones I, 2, 21 and 22
 - Group Gas IIA, IIB and IIC



Reference configuration. Examples: MVAD.M40NI.S6 or MVAD.NI/4MI6.ON

1	+	2	+	3
Type		Code		Material
MVAD		M40NI		S6
ON: Nickel-plated brass S3: Stainless steel AISI303L S4: Stainless steel AISI304L S6: Stainless steel AISI 316L				



REFERENCES ADAPTER EX D/E						
ADAPTER	CODE	SIZE AG (M)	SIZE IG (F)	GL (MIN, mm)	H (mm)	SW (mm)
MVAD	M12NI1/4	M12x1,5	NPT1/4"	15	33,5	18
MVAD	M12N3/8	M12x1,5	NPT3/8"	15	33,5	20
MVAD	M16N3/8	M16x1,5	NPT3/8"	15	33,5	20
MVAD	M16NI1/2	M16x1,5	NPT1/2"	15	34	25
MVAD	M20NI1/2	M20x1,5	NPT1/2"	15	34	25
MVAD	M20N3/4	M20x1,5	NPT3/4"	15	34	30
MVAD	M25N3/4	M25x1,5	NPT3/4"	15	34	30
MVAD	M25NI	M25x1,5	NPT1"	15	34	36
MVAD	M32NI	M32x1,5	NPT1"	15	34	36
MVAD	M32NI 1/4	M32x1,5	NPT 1 1/4"	15	37	45
MVAD	M40NI 1/4	M40x1,5	NPT 1 1/4"	18	40	45
MVAD	M40NI 1/2	M40x1,5	NPT 1 1/2"	18	40	55
MVAD	M50NI 1/2	M50x1,5	NPT 1 1/2"	18	40	55
MVAD	M50N2	M50x1,5	NPT2"	18	40,5	65
MVAD	M63N2	M63x1,5	NPT2"	18	40,5	70
MVAD	M63N21/2	M63x1,5	NPT2 1/2"	18	40,5	80
MVAD	M75N21/2	M75x1,5	NPT2 1/2"	18	40,5	80
MVAD	M75N3	M75x1,5	NPT3"	18	43,5	95
MVAD	M90N3	M90x1,5	NPT3"	21	47	95
MVAD	M90N4	M90x1,5	NPT4"	21	47	120
MVAD	M110N4	M110x1,5	NPT4"	21	47	120
MVAD	NI/4MI2	NPT1/4"	M12x1,5	15	33	18
MVAD	NI/4MI6	NPT1/4"	M16x1,5	15	33,5	22
MVAD	N3/8MI6	NPT3/8"	M16x1,5	15	33,5	22
MVAD	N3/8M20	NPT3/8"	M20x1,5	15	34	25
MVAD	NI/2M20	NPT1/2"	M20x1,5	15	34	25
MVAD	NI/2M25	NPT1/2"	M25x1,5	15	34	30
MVAD	N3/4M25	NPT3/4"	M25x1,5	15	34	30
MVAD	N3/4M32	NPT3/4"	M32x1,5	15	34	36
MVAD	N1M32	NPT1"	M32x1,5	15	34	36
MVAD	N1M40	NPT1"	M40x1,5	15	37	45
MVAD	NI 1/4M40	NPT 1 1/4"	M40x1,5	18	40	45
MVAD	NI 1/4M50	NPT 1 1/4"	M50x1,5	18	40	55
MVAD	NI 1/2M50	NPT 1 1/2"	M50x1,5	18	40	55
MVAD	NI 1/2M63	NPT 1 1/2"	M63x1,5	18	40,5	70
MVAD	N2M63	NPT2"	M63x1,5	18	40,5	70
MVAD	N2M75	NPT2"	M75x1,5	18	40,5	80
MVAD	N21/2M75	NPT2 1/2"	M75x1,5	18	40,5	80
MVAD	N21/2M90	NPT2 1/2"	M90x1,5	18	44	95
MVAD	N3M90	NPT3"	M90x1,5	21	47	95
MVAD	N3MI 10	NPT3"	M110x1,5	21	47	115
MVAD	N4MI 10	NPT4"	M110x1,5	21	47	120

Available upon request

CABLE GLANDS EX D/E

REDUCERS EX D/E IP66 - IP68

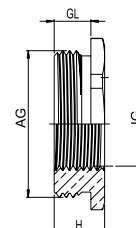
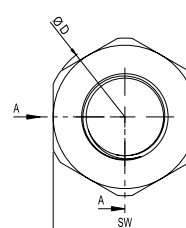
REDUCER EX D/E IP66 - IP68



- Material: Nickel-plated brass, stainless steel AISI303L, stainless steel AISI304L and stainless steel AISI316L
- O-ring: NBR
- Normative and marking:
 - II 2G Exd/e IIC Gb II ID Ex ta IIIC Da I M2 Ex d/e I Mb
 - EN 60079-0 2009 /60079-1 2007/ 60079-31 2009
- Protection class: IP66 / IP68 (EN 60529)
- Application area: Zones 1, 2, 21 and 22 and Group Gas IIA, IIB and IIC
- Temperature range: -60°C to +200°C

Reference configuration. Examples: MVAD1.M16M12.S6 or MVAD1.N3/8N1/4.ON

1	+	2	+	3
Type		Code		Material
MVAD1		M16M12		ON: Nickel-plated brass S3: Stainless steel AISI303L S4: Stainless steel AISI304L S6: Stainless steel AISI 316L
MVAD1		M16M12		S6



REFERENCES REDUCER EX D/E

REDUCER	CODE	SIZE AG (M)	SIZE IG (F)	GL (MIN, mm)	H (mm)	SW (mm)
MVAD1	M16M12	M16x1,5	M12x1,5	15	19	22
MVAD1	M20M12	M20x1,5	M12x1,5	15	19	25
MVAD1	M20M16	M20x1,5	M16x1,5	15	19	25
MVAD1	M25M16	M25x1,5	M16x1,5	15	19	30
MVAD1	M25M20	M25x1,5	M20x1,5	15	19	30
MVAD1	M32M20	M32x1,5	M20x1,5	15	19	36
MVAD1	M32M25	M32x1,5	M25x1,5	15	19	36
MVAD1	M40M25	M40x1,5	M25x1,5	18	22	45
MVAD1	M40M32	M40x1,5	M32x1,5	18	22	45
MVAD1	M50M32	M50x1,5	M32x1,5	18	23	55
MVAD1	M50M40	M50x1,5	M40x1,5	18	23	55
MVAD1	M63M40	M63x1,5	M40x1,5	18	23	70
MVAD1	M63M50	M63x1,5	M50x1,5	18	23	70
MVAD1	M75M50	M75x1,5	M50x1,5	18	24	85
MVAD1	M75M63	M75x1,5	M63x1,5	18	24	85
MVAD1	M90M63	M90x1,5	M63x1,5	21	29	100
MVAD1	M90M75	M90x1,5	M75x1,5	21	29	100
MVAD1	M110M75	M110x1,5	M75x1,5	21	31	120
MVAD1	M110M90	M110x1,5	M90x1,5	21	31	120
MVAD1	N3/8N1/4	NPT3/8"	NPT1/4"	15	19	22
MVAD1	N1/2N1/4	NPT1/2"	NPT1/4"	15	19	25
MVAD1	N1/2N3/8	NPT1/2"	NPT3/8"	15	19	25
MVAD1	N3/4N3/8	NPT3/4"	NPT3/8"	15	19	30
MVAD1	N3/4N1/2	NPT3/4"	NPT1/2"	15	19	30
MVAD1	N1N1/2	NPT1"	NPT1/2"	15	19	36
MVAD1	N1N3/4	NPT1"	NPT3/4"	15	19	36
MVAD1	N11/4N1/2	NPT1 1/4"	NPT1/2"	18	22	45
MVAD1	N11/4N3/4	NPT1 1/4"	NPT3/4"	18	22	45
MVAD1	N11/4N1	NPT1 1/4"	NPT1"	18	22	45
MVAD1	N11/2N1/2	NPT1 1/2"	NPT1/2"	18	23	55
MVAD1	N11/2N3/4	NPT1 1/2"	NPT3/4"	18	23	55
MVAD1	N11/2N1	NPT1 1/2"	NPT1"	18	23	55
MVAD1	N11/2N11/4	NPT1 1/2"	NPT1 1/4"	18	23	55
MVAD1	N2N11/4	NPT2"	NPT1 1/4"	18	23	65
MVAD1	N2N11/2	NPT2"	NPT1 1/2"	18	23	65
MVAD1	N21/2N11/2	NPT2 1/2"	NPT1 1/2"	18	24	75
MVAD1	N21/2N2	NPT2 1/2"	NPT2"	18	24	75
MVAD1	N3N2	NPT3"	NPT2"	21	29	95
MVAD1	N3N21/2	NPT3"	NPT2 1/2"	21	29	95
MVAD1	N4N21/2	NPT4"	NPT2 1/2"	21	31	120
MVAD1	N4N3	NPT4"	NPT3"	21	31	120

Available upon request



CABLE GLANDS EX D/E

ATEX

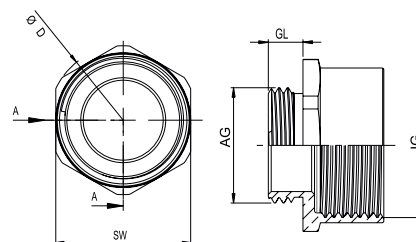
ENLARGER - REDUCER EX D/E IP66 - IP68



- Material: Nickel-plated brass, stainless steel AISI303L, stainless steel AISI304L and stainless steel AISI316L
- O-ring: NBR
- Normative and marking:
 - II 2G Exd/e IIC Gb II ID Ex ta IIC Da I M2 Ex d/e I Mb
 - EN 60079-0 2009 /60079-1 2007/ 60079-31 2009
- Protection class: IP66 / IP68 (EN 60529)
- Application area: Zones 1, 2, 21 and 22 and Group Gas IIA, IIB and IIC
- Temperature range: -60°C to +200°C

Reference configuration. Examples: MVAD.M12M16.S6 or MVAD.N1/4N3/8.ON

1	2	3
Type	Code	Material
MVAD	M12M12	S6
ON: Nickel-plated brass S3: Stainless steel AISI303L S4: Stainless steel AISI304L S6: Stainless steel AISI 316L		



REFERENCES ENLARGER - REDUCER EX D/E						
ENLARGER - REDUCER	CODE	SIZE AG (M)	SIZE IG (F)	GL (MIN. mm)	H (mm)	SW (mm)
MVAD	M12M12	M12x1,5	M12x1,5	15	33,5	18
MVAD	M12M16	M12x1,5	M16x1,5	15	33,5	22
MVAD	M16M16	M16x1,5	M16x1,5	15	33,5	22
MVAD	M12M20	M12x1,5	M20x1,5	15	34	25
MVAD	M16M20	M16x1,5	M20x1,5	15	34	25
MVAD	M20M20	M20x1,5	M20x1,5	15	34	25
MVAD	M16M25	M16x1,5	M25x1,5	15	34	30
MVAD	M20M25	M20x1,5	M25x1,5	15	34	30
MVAD	M25M25	M25x1,5	M25x1,5	15	34	30
MVAD	M20M32	M20x1,5	M32x1,5	15	34	36
MVAD	M25M32	M25x1,5	M32x1,5	15	34	36
MVAD	M32M32	M32x1,5	M32x1,5	15	34	36
MVAD	M25M40	M25x1,5	M40x1,5	15	37	45
MVAD	M32M40	M32x1,5	M40x1,5	15	37	45
MVAD	M40M40	M40x1,5	M40x1,5	18	40	45
MVAD	M32M50	M32x1,5	M50x1,5	15	37	55
MVAD	M40M50	M40x1,5	M50x1,5	18	40	55
MVAD	M50M50	M50x1,5	M50x1,5	18	40	55
MVAD	M50M63	M50x1,5	M63x1,5	18	40,5	70
MVAD	M63M63	M63x1,5	M63x1,5	18	40,5	70
MVAD	M63M75	M63x1,5	M75x1,5	18	40,5	80
MVAD	M75M75	M75x1,5	M75x1,5	18	40,5	85
MVAD	M75M90	M75x1,5	M90x1,5	18	43,5	95
MVAD	M90M90	M90x1,5	M90x1,5	21	47	95
MVAD	M90M110	M90x1,5	M110x1,5	21	47	115
MVAD	M110M110	M110x1,5	M110x1,5	21	47	120
MVAD	N1/4N1/4	NPT1/4"	NPT1/4"	15	33	18
MVAD	N1/4N3/8	NPT1/4"	NPT3/8"	15	33,5	20
MVAD	N3/8N3/8	NPT3/8"	NPT3/8"	15	33,5	20
MVAD	N3/8N1/2	NPT3/8"	NPT1/2"	15	34	25
MVAD	N1/2N1/2	NPT1/2"	NPT1/2"	15	34	25
MVAD	N1/2N3/4	NPT1/2"	NPT3/4"	15	34	30
MVAD	N3/4N3/4	NPT3/4"	NPT3/4"	15	34	32
MVAD	N3/4N1	NPT3/4"	NPT1"	15	34	36
MVAD	N1N1	NPT1"	NPT1"	15	34	36
MVAD	N1N1 1/4	NPT1"	NPT1 1/4"	15	37	45
MVAD	N1 1/4N1 1/4	NPT1 1/4"	NPT1 1/4"	18	40,5	45
MVAD	N1 1/4N1 1/2	NPT1 1/4"	NPT1 1/2"	18	40,5	55
MVAD	N1 1/2N1 1/2	NPT1 1/2"	NPT1 1/2"	18	40,5	55
MVAD	N1 1/2N2	NPT1 1/2"	NPT2"	18	40,5	65
MVAD	N2N2	NPT2"	NPT2"	18	40,5	65
MVAD	N2N2 1/2	NPT2"	NPT2 1/2"	18	40,5	80
MVAD	N2 1/2N2 1/2	NPT2 1/2"	NPT2 1/2"	18	40,5	80
MVAD	N2 1/2N3	NPT2 1/2"	NPT3"	18	43,5	95
MVAD	N3N3	NPT3"	NPT3"	21	47	95
MVAD	N3N4	NPT3"	NPT4"	21	47	120
MVAD	N4N4	NPT4"	NPT4"	21	47	120

Available upon request

CABLE GLANDS EX D/E

ACCESSORIES

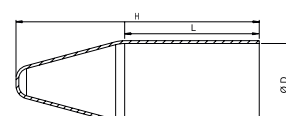
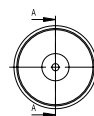
SHROUD IP66 - IP68



- Material:
 - TPV
 - PVC
 - LSF
- Protection class: IP66 / IP68 (EN 60529)
- Temperature range: -20°C to +80°C

Reference configuration. Example: MVSHR16LSF

1	+	2	+	3
Type		Size		Material
MVSHR		16		TPV: TPV PVC: PVC LSF: LSF



REFERENCES SHROUD				
SHROUD	SIZE	ØD (mm)	H (mm)	L (mm)
MVSHR	16	25	100	60
MVSHR	20	32	110	65
MVSHR	25	41	130	70
MVSHR	32	49	145	77
MVSHR	40	60	170	85
MVSHR	50S	65	155	86
MVSHR	50	75	175	92
MVSHR	63S	81	180	92
MVSHR	63	86	180	92
MVSHR	75S	100	220	115
MVSHR	75	110	220	115

Available upon request

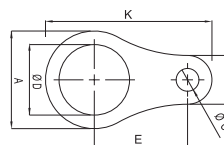
EARTH TAG



- Material:
 - Nickel-plated brass
 - Stainless steel AISI303L
- Temperature range: -40°C to +100°C

Reference configuration. Example: MVTT16ON

1	+	2	+	3
Type		Size		Material
MVTT		16		ON: Nickel-plated brass S3: Stainless steel AISI303L



REFERENCES EARTH TAG								
EARTH TAG	SIZE	A (mm)	ØD (mm)	ØC (mm)	F (mm)	K (mm)	E (mm)	T (mm)
MVTT	16	25,4	16,5	6,5	12,5	49	30	1
MVTT	20	27	20,5	6,5	10,2	51,6	33	1
MVTT	25	35	25,5	6,5	13,5	60	35,5	1
MVTT	32	45	32,5	10,5	22,5	76,75	43	1
MVTT	40	53,5	40,5	10,5	23,6	83,5	45	1
MVTT	50	65	50,5	10,5	29,5	105,25	58	1
MVTT	63	82	63,5	10,5	29,5	122,75	67	1
MVTT	75	96	75,5	6,5	24	-	73	1,5
MVTT	90	114	90,5	6,5	37	-	86	1,5

Available upon request



FLEXIBLE CABLE SEALING ROXTEC EX E AND EX TD

The Most Powerful Security

The Ex e products are designed to prevent ignition of explosive atmospheres. Typical applications are Ex e and/or Ex tD classified electrical enclosures, such as transformers, motors, generators and junction boxes.



CERTIFICATION

- EN 60079-0:2006
- EN 60079-7:2003
- EN 61241-0:2006
- EN 61241-1:2004
- IEC 60079-0:2004
- IEC 60079-7:2001
- IEC 61241-0:2006
- IEC 61241-1:2004

Examples

CF 16 FRAME

The CF 16 Ex frame has a very low profile and is suitable for enclosures where many cables need to be routed in areas with limited space. The CF 16 Ex has integrated compression and is ready to accommodate up to 30 cables.



CF 8 EX/CF 32 FRAME

The CF 8 Ex and CF 32 Ex are cast aluminium frames suitable for compact installations in cabinets. The compression is integrated in the frame. CF 8 Ex can accommodate up to 15 cables and CF 32 Ex up to 60 cables.



FOR MORE INFORMATION CLICK HERE

FLEXIBLE CABLE SEALING ROXTEC EX E AND EX TD

S EX FRAME

S Ex frame is a metal frame available as a single opening, or in combinations with several openings in width and / or height.



G EX FRAME

The G Ex is a flanged metal frame intended for bolting into place. The frame with its gasket is attached to the intended place by means of screws through pre-drilled holes (in the frame and the gasket).



SF...W EX FRAME

SF...W Ex frame is a metal frame with flange. Available as a single opening, or in combinations with several openings in width and / or height.



C RST EX

The C RST Ex sealing solution is available in four sizes. Together they seal single cables from Ø3.6 mm to Ø30 mm.



R EX

The R Ex is a round expansion frame with a square packing space.

The kit includes a sleeve.



RS EX

The RS Ex is a round entry seal including a sleeve. The seal consists of two halves and an adaptable centre with removable layers. Compression is integrated in the seal.



STAYPLATE EX

Stayplates Ex are used for pull-out resistance against forces in cables. To be inserted between rows of modules in frames with a rectangular packing space and no built-in compression



WEDGE EX

The Roxtec Wedge Ex is the compression unit for S, SF...W, and G Ex frames.



LUBRICANT

Natural tallow is used to lubricate the sealing modules, Roxtec Wedge and the inside of the frame.



WEDGE CLIP

The Roxtec wedge clip is delivered with the Roxtec wedge.



MOUNTING / DISMOUNTING TOOLS





Zones 0, I, 2, 20, 21 and 22

ATEX CABLES



LOW VOLTAGE ARMoured CABLE



Hazardous area Power protected cable for the supply of electronic and computers equipments (adjustable of frequency and motors) in which is required to avoid the possible interferences caused by power outlet in adjacent cables of signal transmission. These cables can, with the appropriate accessories, be used in an explosive atmosphere Atex & IECEx.

REFERENCE

DVCA100

ATEX POWER TRANSMISSION AND DISTRIBUTION CABLE



Hazardous area cable for Transportation and distribution of electric power in stationary installations, networks distribution, power supply, public lighting installations and industrial electrical connections to the air or underground, in which high benefits are required orehead to overloads and short circuits.

REFERENCE

DVC100

ATEX POWER ARMoured CABLE



Hazardous area Power protected cable for the supply of electronic and computers equipments (adjustable of frequency and motors) in which is required to avoid the possible interferences caused by power outlet in adjacent cables of signal transmission. These cables can, with the appropriate accessories, be used in an explosive atmosphere Atex & IECEx.

REFERENCE

DVC200

HAZARDOUS AREA MULTICONDUCTIVE ARMoured CABLE



Hazardous area Multiconductive cable, to multipar or multitriples, armed with galvanized steel wire braid, screened to the set with aluminium/polyester for protection against electrical and electromagnetic disturbances, destined to the transmission of signals of control, instrumentation, alarms, security, ...

REFERENCE

DVC5100

HAZARDOUS AREA VOICE AND IP CABLE



Hazardous area category 6 UTP cable is designed to support any data or voice system that is capable of running over a category 6 system. With the armour of steel wires is specially adapted for areas with risk of deflagration in explosive atmospheres or with fire risk.

REFERENCE

DVCRI00





LOAD DISCONNECT SWITCHES ATEX & IECEX





Zones 1, 2, 21 and 22

SWITCHES 2 POSITIONS



Example

**Keep Control in Any Area
with Maximum Security
and Flexibility**

Atex selectors switches (start-stop), is performed on a stainless steel box anticorrosive according ATEX directives 2014/34/EU and 2014/35/EU. They are suitable for use in petrochemical plants, offshore oil companies, refineries, etc. Available Atex switches with three positions and Atex flameproof switches.



APPLICATIONS

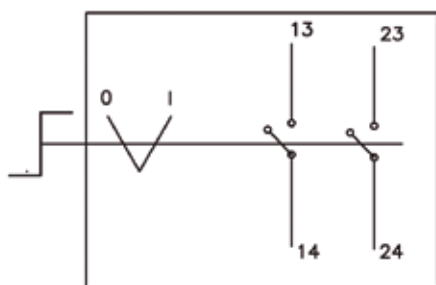
Atex control boxes are specially designed to perform checks, maneuvers and as actuators in explosive atmospheres. They have a rugged, corrosion proof system and are finished in stainless steel.

Allows you to take control of both machines zones 1, 2, 21 and 22

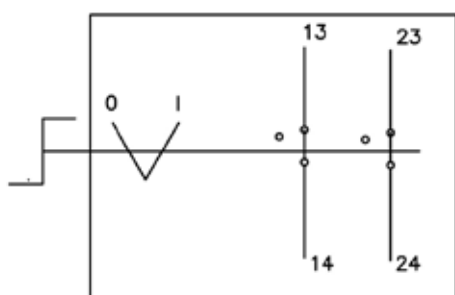


TECHNICAL SPECIFICATIONS

Selector switch
2 NO, 2 position
0 - I



Selector switch
2 NO, 2 position
0 - I



IT CONTAINS

- Selector switch 2 position NO.
- Cable gland nickel plated brass M25 cable not armed.
- Options other measurements, other materials, for armored cable,...

REFERENCE

CONTREX 1051



SIZE

120x120x75 (Option AISI304L and AISI316L)



**Zones I, 2, 21 and 22**

SWITCHES 3 POSITIONS

**We Offer High
Atex Reliability**

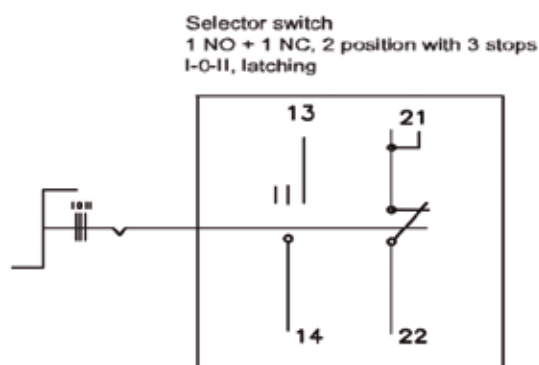
Atex selectors switches three maneuvers, is performed on a stainless anticorrosive steel box Atex directives 2014/34/EU and 2014/35/EU. Available Atex switches with three positions and Atex switches flameproof.



Example

➔ **FOR MORE INFORMATION CLICK HERE**

TECHNICAL SPECIFICATIONS



APPLICATIONS

Atex control boxes are specially designed to perform checks, maneuvers and as actuators in explosive atmospheres. They have a rugged, corrosion proof system and finished in stainless steel.

Allows you to take control of both machines zones I, 2, 21 and 22

IT CONTAINS

- Selector switch 1 NO + 1 NC
2 position with 3 stops I-0-II, latching.
- Cable gland nickel plated brass M25 cable not armed.
- Options other measurements, other materials, for armored cable,...

REFERENCE

CONTREX I050

SIZE

120x120x75 (Option AISI304L and AISI316L)



ROTARY FLAMEPROOF SWITCHES

**Keep Control in Any Area
with Maximum Security
and Flexibility**

Ex circuit breakers, switches and change-over switches are rotary type models with a control device on the cover. The switches have a range of 16A whereas EFSCO series have ranges of 25, 50 and 63A. Switches are supplied with Male 1" - Female 3/4" reducer.



Example



CHARACTERISTICS

- Low copper content aluminium alloy body and cover.
- Front aluminium handle.
- Cover fitted with stainless steel closing screws.
- Fixing lugs.
- Internal/external stainless steel earth screws.
- RAL 7035 epoxy coating.



MARKING

- II 2 G D:
 - Ex d IICT6
 - Ex tD A2I IP 66
- Directive:
 - 2014/34/EU
- Norms:

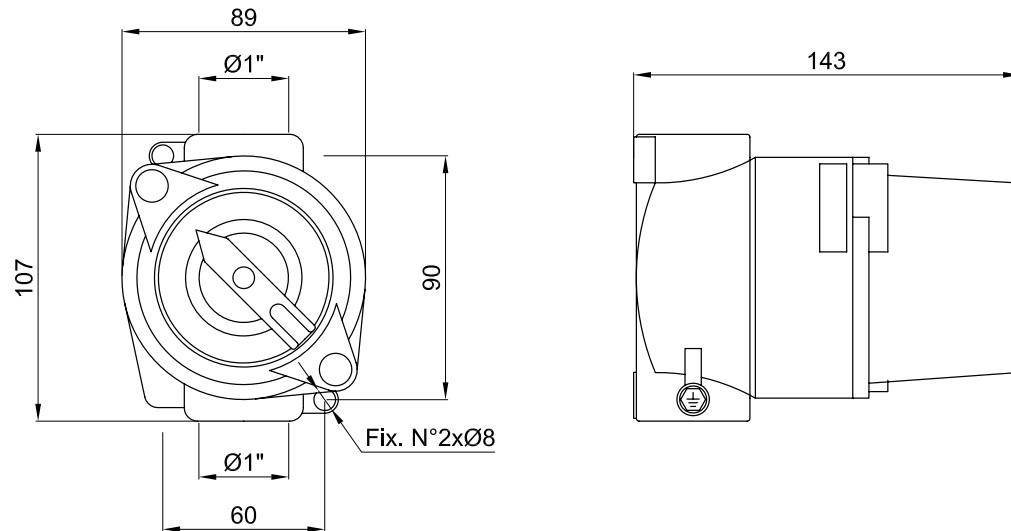
○ EN 60079-0	IEC 60079-0
○ EN 60079-1	IEC 60079-1
○ EN 61241-0	IEC 61241-0
○ EN 61241-1	IEC 61241-1

➔ **FOR MORE INFORMATION CLICK HERE**



ROTARY FLAMEPROOF SWITCHES

BLUEPRINT AND DIMENSIONS



REFERENCES

REF.	DESCRIPTION	HOLE	RANGE	POLES	WEIGHT
RS001	Switches	1"	16A	2	0,95
RS002	Switches	1"	16A	3	0,86
RS003	Switches	1"	16A	4	0,85
RS004	Conmutador (1-0-2)	1"	16A	2	0,89
RS005	Derivador (0-1)	1"	16A	2	0,89
RS006	Switches investment (1-0-2)	1"	16A	2	0,89



Zones I, 2, 21 and 22

SAFETY AND ISOLATION SWITCHES

ATEX & IECEx

Robust and Easy to Install



Example hinged closure (Luxorex)



Example screw closure (Geoex)

The Ex safety and isolation switch, allows work with a machine to safely maintain, clean and overhaul it as long as the switch is in the OFF position.

It's made up of two components:

- The control component is a selector, which allows the current to go through the circuit or not. The ON position (I) allows the current, so blocks access to the machine through the mechanical blocker. The OFF position (0) blocks the current, to allow any work on the machine to be carried out.
- The isolation module allows the current to go through the circuit when the selector is in the ON position, and keep the current when the selector is in the OFF one.

This kind of switch is commonly used in any industry which uses machines, because the electrical circuits and tri-phase asynchronous motors need the energy supply and the installation kept separate, in places considered as potentially explosive, such as zones I, 2, 21 and 22.

The switch is protected by a stainless steel AISI 316L enclosure, specifically designed, waterproof, antirust and with IP66 protection degree. It has a protection "Ex e" and "Ex d", which allows use in zones with a high explosion risk.

We have two types of closures:

- Screw closure (Geoex)
- Hinged closure (Luxorex)

➔ **FOR MORE INFORMATION CLICK HERE**



SAFETY AND ISOLATION SWITCHES **ATEX & IECEx**

CHARACTERISTICS

The Ex switch rated current is between 25 and 180A.

It can work between two temperature ranges, which give it a higher use capacity.

- $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
- $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$

The Ex enclosure has:

- The joint between the cover and body, is designed to secure an IP66 degree protection.
- The selector has an IP65 degree protection.
- It's designed with stainless steel AISI 304L.
- It includes two cable glands with "Ex e" protection in either M25 nickel plated brass or in stainless steel.
- It has four wall brackets.
- It has "Ex e" and "Ex d" protection, for use it in zones 1, 2, 21 and 22 with explosive atmospheres with dust and gas.



OPTIONS

- We have two types of closures:
 - Screw closure (Geoex)
 - Hinged closure (Luxorex)
- There are two kinds of Ex selector, one normal and the other an emergency selector, in red and yellow.
- Choice of poles between 3 poles, 3 poles + neutral, 4 poles and 6 poles.
- Possibility of including auxiliary contacts:
- Enclosure is made in AISI 316L stainless steel for marine or highly corrosive places.
- Ex cable glands available in any size and thread.

ADVANTAGES

- The enclosure can be manufactured in stainless steel 316L.
- It's a necessary device in order to carry out maintaining, cleaning or overhauling.
- It gives a total block.
- Enclosure is made in AISI 316L stainless steel for marine or highly corrosive places.



SAFETY AND ISOLATION SWITCHES **ATEX & IECEx**



PROTECTION MODE

This equipment is certified for use in potentially explosive atmospheres in 1, 2, 21 and 22 zones and it has "Ex e" and "Ex d" (protection).

Atex mark:

- II2G Ex d e IICT6/T5 Gb
- II2D Ex tb IIIC T85°C /T100°C Db
- Certificate number: LOM14ATEX2082

- Certificate number: LOM17ATEX1011

IECEx mark:

- Ex d e IICT6/T5 Gb
- Ex tb IIIC T85°C/T100°C Db
- Certificate number: EX/LOM/IECEx



CERTIFICATION

Atex directive and regulation:

- Atex directive 2014/34/EU
- EN 60079-0:2012
- EN 60079-1:2007
- EN 60079-7:2015
- EN 60079-31:2010

- IEC 60079-7:2015
- IEC 60079-31:2013

Enclosure regulation:

- IP regulation (IP65): IEC 60529
- IK regulation (IK10): IEC 62262

Low voltage directive and regulation:

IECEx regulation:

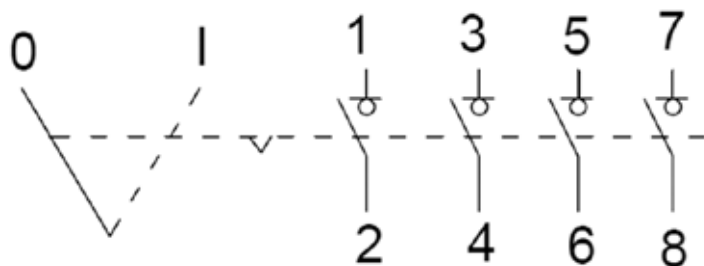
- IEC 60079-0:2011
- IEC 60079-1:2006

- Directive 2014/35/EU
- EN 61439-1:2011
- EN 61439-2:2011



ELECTRICAL DIAGRAM

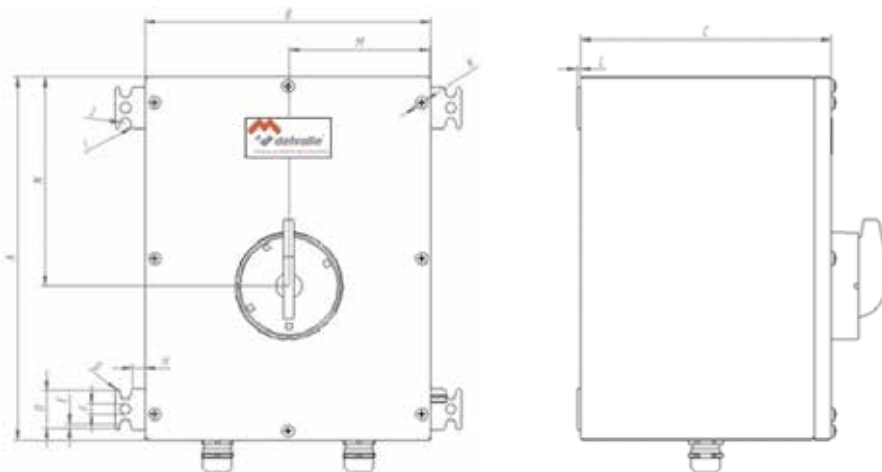
The electrical diagram is the following in case you have chosen four poles.



SAFETY AND ISOLATION SWITCHES **ATEX & IECEx**

BLUEPRINT AND DIMENSIONS GEOEX

The planes are the same for all models, even if the measurements change.



STAINLESS
ANTICORROSIVE



MECHANICAL
PARTS

GEOEX - DIMENSIONS (mm)

25A														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
3P	175	150	110	36	3,5	D10	R2	I2	R2	R5	D12	3	94	74
4P			110											
3P+N			110											
6P			150											
40A														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
3P	200	200	175	36	3,5	D10	R2	I2	R2	R5	D12	3	100	112
4P			175											
3P+N			175											
6P			210											
80A														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
3P	250	250	200	36	3,5	D10	R2	I2	R2	R5	D12	3	124	124
4P			200											
3P+N			200											
6P			240											
180A														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
3P	350	275	250	36	3,5	D10	R2	I2	R2	R5	D12	3	136	201
4P			250											
3P+N			250											
6P			300											



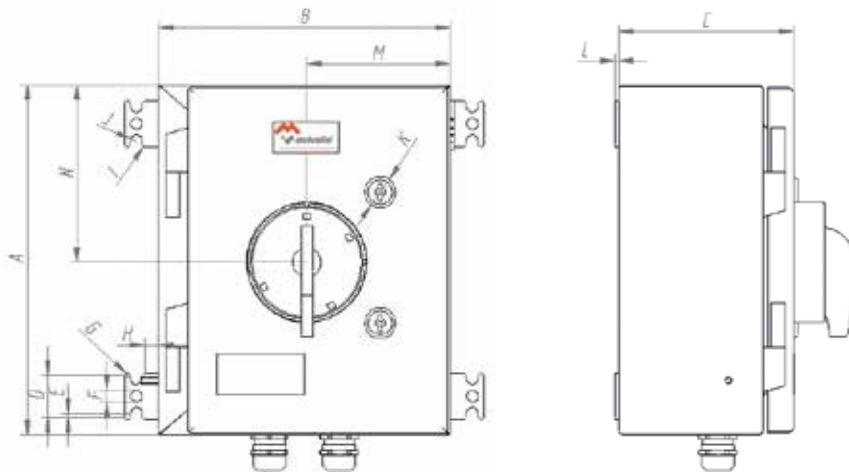


SAFETY AND ISOLATION SWITCHES **ATEX & IECEx**



BLUEPRINT AND DIMENSIONS LUXOREX

The planes are the same for all models, even if the measurements change.



10
YEARS
GUARANTEE
STAINLESS
ANTICORROSIVE

5
YEARS
GUARANTEE
MECHANICAL
PARTS

LUXOREX - DIMENSIONS (mm)

25A														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
3P	300	250	150	36	3,5	D10	R2	I2	R2	R5	D27	3	I25	152
4P			150											
3P+N			150											
6P			200											
40A														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
3P	270	270	200	36	3,5	D10	R2	I2	R2	R5	D12	3	I35	135
4P			200											
3P+N			200											
6P			250											
80A														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
3P	300	300	200	36	3,5	D10	R2	I2	R2	R5	D12	3	I50	150
4P			200											
3P+N			200											
6P			250											
180A														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
3P	350	320	250	36	3,5	D10	R2	I2	R2	R5	D12	3	I60	175
4P			250											
3P+N			250											
6P			300											



SAFETY AND ISOLATION SWITCHES **ATEX & IECEx**

REFERENCES

This motor protection includes some different and as consequence of this we have created the next table to know the equipment's code.

TYPE	RATED CURRENT (A)	HANDLE'S COLOUR SWITCH	NUMBER OF POLES	AUXILIARY CONTACTS	EX
SSIS	To choose one	To choose between the black and red one	To choose between 3 poles, 3 poles + neutral, 4 poles and 6 poles	To choose one. In case of want nothing, not write	EX
	25 40 80 180	R N	3P 3PN 4P 6P	NONC 2NC 2NO NC NO	
Version Luxorex, with door		Add "P" to reference. Ex. "SSIS/25-R-4P-NONC-EX-P"			

EXAMPLE GEOEX

Switch Geoex with 25A rated current, handle in red colour, with 4 poles and one auxiliary contact normally open and another normally closed.

CODE

SSIS/25-R-4P-NONC-EX

EXAMPLE LUXOREX

Switch Luxorex with 40A rated current, handle in red colour, with 4 poles and one auxiliary contact normally open and another normally closed.

CODE

SSIS/40-R-4P-NONC-EX-P



EXPLOSION MOTOR STARTERS

ATEX & IECEX



**Zones I, 2, 21 and 22**

MOTOR STARTERS - MOTOR PROTECTION

ATEX & IECEx IP66

**Protect Electric Tri-Phase
Motor in Zones
with Explosives Atmospheres**



Example screw closure (Geoex)



Example hinged closure (Luxorex)

The Ex motor protection has been designed to brain in one device the ability to protect one electric tri-phase motor in zones with explosives atmospheres as well as to start and stop that motor.

It's formed of two components:

- As internal component with one motor protector, which protects the motor against heavy electrical problems, like short-circuits, overloads and motor or circuit failures.
- It has a selector, the only control component. It starts the motor in the ON position (I) and stops it the OFF one (0).

The design has been made in a waterproof and antirust enclosure with AISI 304L stainless steel. This design allows us to use this device in protected spaces with a high explosion risk, getting this manner, the "Ex e" and "Ex d" protection types in potentially explosive atmospheres of dust and gas. It can be used in any industry considered to hace an explosive atmosphere in dust or gas places, like oil & gas, petrol chemical, petrol, offshore industries,...

We have two types of closures:

- Screw closure (Geoex)
- Hinged closure (Luxorex)



FOR MORE INFORMATION CLICK HERE





MOTOR STARTERS - MOTOR PROTECTION **ATEX & IECEx** IP66

APPLICATIONS

This equipment can be used in any industry considered to have an explosive atmosphere in dust or gas places. Some examples of these can be oil & gas, chemical, petrol chemical, petrol, offshore industries,...



TECHNICAL FEATURES

- The Ex motor protection rated voltage is 400V, and the rated current up to 25A.
- It has two temperature ranges for its use, which gives it a higher versatility.
 - $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
 - $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$
- The joint between the cover and body, is designed to secure an IP66 degree protection. The selector has an IP65 degree protection.
- It includes two cable glands with "Ex e" protection in M25 nickel plated brass or in stainless steel.
- It has four wall brackets, enabling placement on a wall.
- It is considered to give "Ex e" and "Ex d" protection, for use in zones 1, 2, 21 and 22 with explosive atmospheres with dust and gas.

OPTIONS

- We have two types of enclosures:
 - Screw closure (Geoex)
 - Hinged closure (Luxorex)
- Low voltage auto trip which switches off the motor if there is a fall in voltage.
- Auxiliary contact normally closed and normally opened.
- We recommend adding an ammeter to check the current inside the circuit.
- Box made in AISI 316L stainless steel for marine or highly corrosive places.
- Possibility of using it at low temperatures -25°C with IIB gas group.
- Cable glands available in any size and thread.

ADVANTAGES

- A really important advantage of using this device, is that it can work with a lower temperature than the ranges say, enabling work, in many unfavourable places, with -25°C in gas group IIB.
- This Ex motor protection's design avoids placing a fuse to protect the electrical supply against short-circuits or over loads.
- Thanks to this device, the motor's useful life is longer, because it's protected against many electrical problems.
- The enclosure can be manufactured in AISI 316L stainless steel.

MOTOR STARTERS - MOTOR PROTECTION **ATEX & IECEx** IP66

PROTECTION MODE

This equipment is certified for use in potentially explosive atmospheres in 1, 2, 21 and 22 zones and it has a protection "Ex e" and "Ex d".

Atex mark:

- II2G Ex d e IICT6/T5 Gb
- II2D Ex tb IIIC T85°C /T I00°C Db
- Certificate number: LOM14ATEX2082

- Certificate number: LOM17ATEX1011

IECEx mark

- Ex d e IICT6/T5 Gb
- Ex tb IIIC T85°C /T I00°C Db
- Certificate number: EX/LOM/IECEx



REGULATIONS

Atex directive and regulation:

- Atex directive 2014/34/EU
- EN 60079-0:2012
- EN 60079-1:2007
- EN 60079-7:2015
- EN 60079-31:2010

IECEx regulation:

- IEC 60079-0:2011
- IEC 60079-1:2006

- IEC 60079-7:2015
- IEC 60079-31:2013

Cupboard regulation:

- Norma IP IEC 60529
- Norma IK IEC 62262

Low voltage directive and regulation:

- Directive 2014/35/UE
- EN 61439-1:2011
- EN 61439-2:2011



MOTOR STARTERS - MOTOR PROTECTION **ATEX & IECEX** IP66

WITHOUT AMMETER



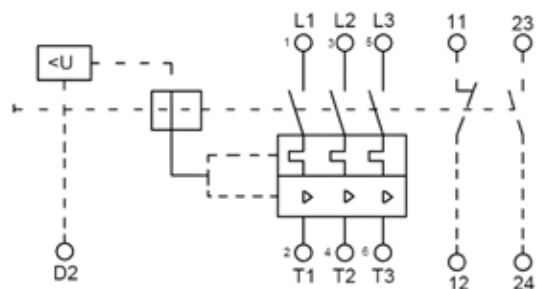
ELECTRIC DIAGRAM



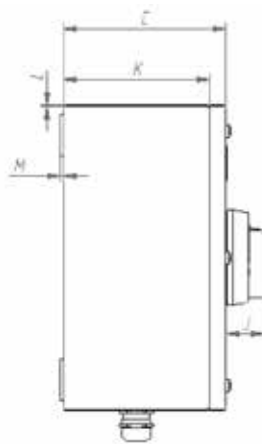
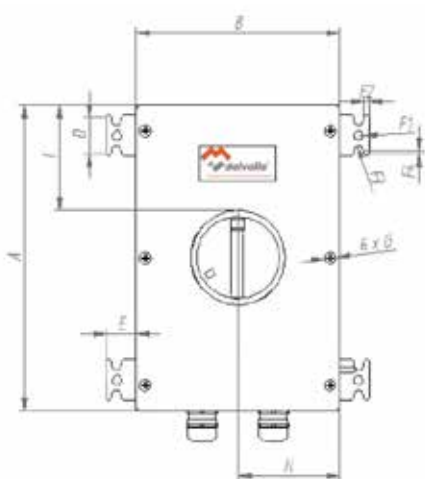
STAINLESS
ANTICORROSIVE



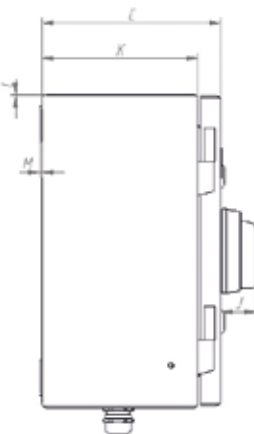
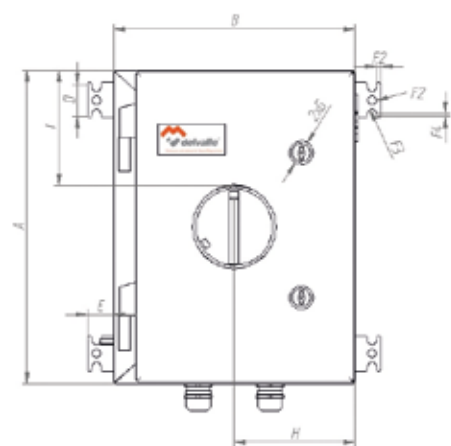
MECHANICAL
PARTS



BLUEPRINT AND DIMENSIONS



Model Geoex without ammeter



Model Luxorex without ammeter

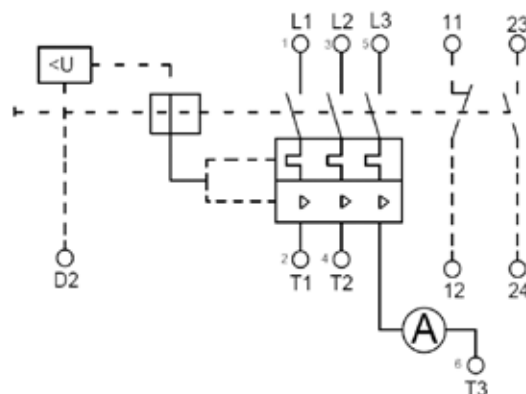
MOTOR STARTER WITHOUT AMMETER - DIMENSIONS (MM)

	A	B	C	D	E	F1	F2	F3	F4	G	H	I	J	K	L	M
GEOEX	300	200	160	36	29	R5	5	R5	3,5	R6	100	103	37,8	144	1,2	3
LUXOREX	350	270	200	36	29	R5	5	R5	3,5	R13,5	135	128	37,8	174	1,5	3

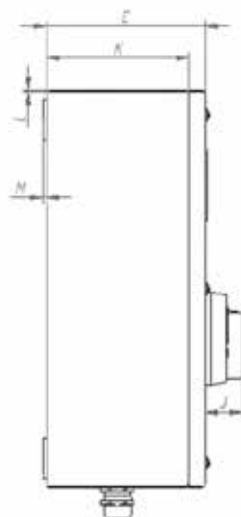
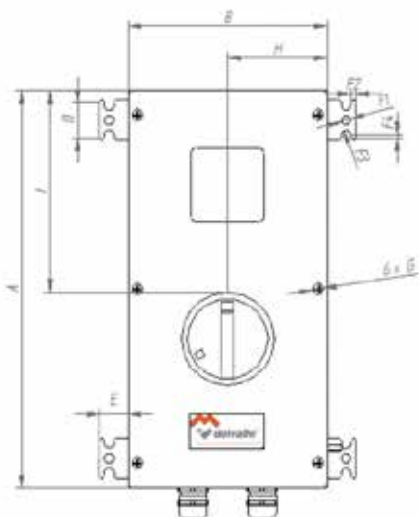
MOTOR STARTERS - MOTOR PROTECTION **ATEX & IECEX** IP66

WITH AMMETER

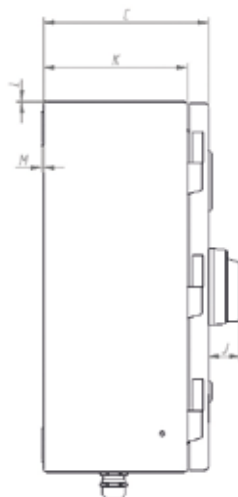
ELECTRIC DIAGRAM



BLUEPRINT AND DIMENSIONS



Model Geoex with ammeter



Model Luxorex with ammeter

MOTOR STARTER WITH AMMETER - DIMENSIONS (MM)

	A	B	C	D	E	F1	F2	F3	F4	G	H	I	J	K	L	M
GEOEX	400	200	160	36	29	R5	5	R5	3,5	R6	100	203	37,4	144	1,2	3
LUXOREX	450	270	200	36	26	R5	5	R5	3,5	R13,5	135	178	37,4	174	1,5	3



MOTOR STARTERS - MOTOR PROTECTION **ATEX & IECEx** IP66



REFERENCES

This motor protection includes some possibilities and as consequence of this we have created the next table to know the equipment's code.

TYPE	RATED ON-OFF CAPACITY (KA)	SETTING RANGE OF OVER LOAD TRIP (A)	LOW VOLTAGE AUTO TRIP	AUXILIARY CONTACT I NO + I NC	AMMETER	EX
CSMP	To chose one	The maximum one must be chosen	To write it if u want this	To write it if u want this	To write it if u want this	EX
	65	0.1-0.16 0.16-0.25 0.25-0.4 0.4-0.63 0.63-1 1-1.6 1.6-2.5	T	NONC	A	
	16	2.5-4 4-6.3 6.3-10 16-10				
	12	16-20 20-25				

EXAMPLE GEOEX

Motor protection Geoex with 16 rated capacity, with 4-6.3 range of over load, without auto trip but with auxiliary contact and ammeter

CODE

CSMP/16/6.3-NONC- A -EX

EXAMPLE LUXOREX

Motor protection Luxorexwith 65 rated capacity, with 1-1.6 range of over load, without auto trip but with auxiliary contact and ammeter

CODE

CSMP/65/1.6-NONC- A -EX-P





Zones I, 2, 21 and 22

MAGNETIC MOTOR STARTERS WITH MOTOR PROTECTION

ATEX & IECEx IP65

**Security, Reliability
and Durable**



Example screw closure (Geoex)



Example hinged closure (Luxorex)

This ATEX & IECEx magnetic motor starter's main purpose is to control on and off switching for an Ex motor, and also to guarantee a reliable protection against electrical problems which could be present.

This device has the following components:

- Internal components
 - Motor protection: keeps the motor free of damage after any electrical problem such as short circuits, overloads and phase failures.
 - Contactor: enables the motor to work, allowing the current flow.
- Control components
 - Selector switch: switches the motor protection on and off, and at the same time allows or blocks the current going to the contactor.
 - Double button: allows the current to go through the contactor in the ON position (I) and block the current in the OFF position (0).

The Ex magnetic motor starter is secure, reliable and strong. Its components are protected by a stainless steel AISI 304 ATEX enclosure, specially designed, antirust, waterproof and with IP66 protection. It has a protection "Ex e" and "Ex d" allowing its use in zones with high explosion risk, outdoors and is antirust.

We have two types of closures:

- Screw closure (Geoex)
- Hinged closure (Luxorex)

➔ **FOR MORE INFORMATION CLICK HERE**



MAGNETIC MOTOR STARTERS WITH MOTOR PROTECTION **ATEX & IECEx** IP65

ADVANTAGES

- Fast switch off when there is an overload.
- Avoids using fuses thanks to motor protection when switching on.
- Longer useful life thanks to the motor protection.
- Easy assembly.
- Possible to get the coil with low voltages, controlling high capacity motors with a low voltage circuit.
- Possibility of manufacturing the Atex & IECEx starter in stainless steel AISI 316L.



TECHNICAL FEATURES

The max. rated voltage motor starter is 400V and the max. rated current 25A.

The power for which this Atex & IECEx starter is designed is in a range 4-11 kW.

It can work in two temperature ranges, which give it a higher use capacity.

- $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
- $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$

The Ex enclosure has:

- The joint between the cover and body, designed to secure a really high degree of protection IP66.
- The selector switch considered as IP65 protection.
- A protection "Ex e" and "Ex d", for use in I, 2, 21 and 22 zones, and potentially explosive atmospheres.
- Three cable glands in nickel plated brass with "Ex e" protection in M25 included.

OPTIONS

- We have two types of closures:
 - Screw closure (Geoex)
 - Hinged closure (Luxorex)
- To protect the motor against drops in damaged tension, an auto trip can be added to shut the motor down.
- You can choose the range of over load motor protection, voltage of AC contactor and power, to assure the kind of magnetic starter you want.
- The voltage of the AC contactor can be: 24, 36 48, 110, 220-230 and 380-400V, but the most used one is 220-230V.
- The enclosure can be manufactured in stainless steel AISI 316L for marine and highly corrosive places.
- Cable glands available in any size and thread and made in stainless steel.

MAGNETIC MOTOR STARTERS WITH MOTOR PROTECTION **ATEX & IECEX** IP65

PROTECTION MODE

This equipment is certified for use in potentially explosive atmospheres in 1, 2, 21 and 22 zones.

Atex marking:

- II2G Ex d e IICT6/T5 Gb
- II2D Ex tb IICT85°C /T100°C Db

- Certificate number: LOM14ATEX2082
- Certificate number: LOM17ATEX1011

IECEX marking:

- Ex d e IICT6/T5 Gb
- Ex tb IICT85°C/T100°C Db
- Certificate number: EX/LOM/IECEX

REGULATIONS

Atex directive and regulation:

- Atex directive 2014/34/EU
- EN 60079-0:2012
- EN 60079-1:2007
- EN 60079-7:2015
- EN 60079-31:2010

IECEX regulation:

- IEC 60079-0:2011
- IEC 60079-1:2006

- IEC 60079-7:2015
- IEC 60079-31:2013

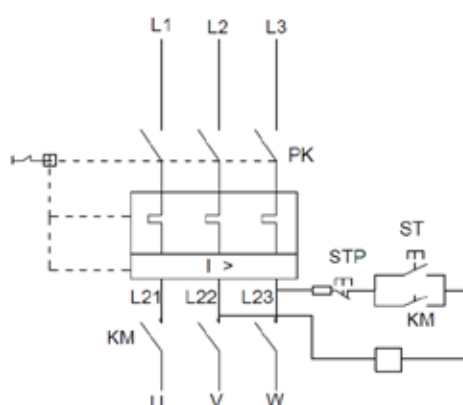
Enclosure regulation:

- IP regulation (IP65): IEC 60529
- IK regulation (IK10): IEC 62262

Low voltage directive and regulation:

- Directive 2014/35/EU
- EN 61439-1:2011
- EN 61439-2:2011

ELECTRICAL DIAGRAM

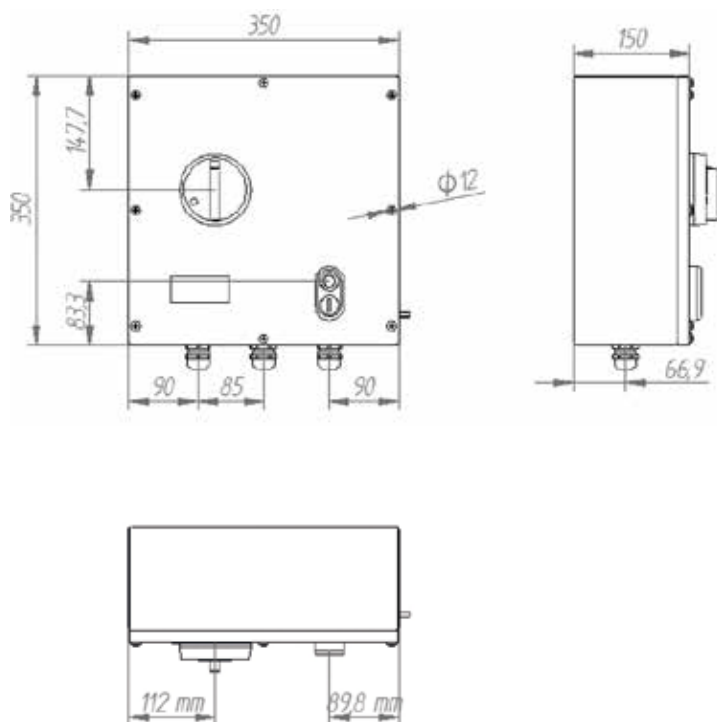




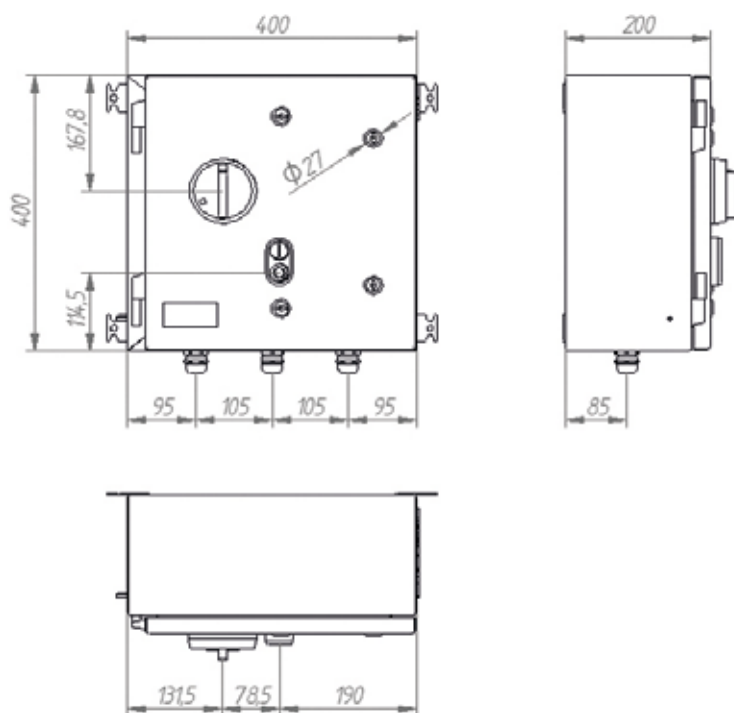
MAGNETIC MOTOR STARTERS WITH MOTOR PROTECTION **ATEX & IECEx** IP65



BLUEPRINT AND DIMENSIONS GEOEX



BLUEPRINT AND DIMENSIONS LUXOREX



MAGNETIC MOTOR STARTERS WITH MOTOR PROTECTION **ATEX & IECEX** IP65

REFERENCES

This motor protection includes several possibilities thus we have created the following table to see the equipment's code.

TYPE	RANGE OF OVER LOAD OF MOTOR PROTECTION (A)	CURRENT OF CONTACTOR (A)	POWER (KW)	VOLTAGE OF AC CONTACTOR COIL (V)	LOW VOLTAGE AUTO TRIP	EX
MG	To choose one and to write the highest number	To choose one	To choose one	To choose one. To write the highest number in the two lasts cases	Write it if u want the auto trip	
	6.3-10 10-16 10-16 20-25	12 25 25 25	4 5.5 7.5 11	24 36 48 110 220-230 380-400	U	
	These three are associated if u choose one u know what are the other:					

EXAMPLE GEOEX

Magnetic starter Geoex with 7.5W power, 380-400V voltage of AC contactor and without auto trip.

CODE

MG/16/25-7.5-400-EX

EXAMPLE LUXOREX

Magnetic starter Luxorex with 7.5W power, 380-400V voltage of AC contactor and without auto trip.

CODE

MG/16/25-7.5-400-EX-P



Zones 1, 2, 21 and 22

MAGNETIC MOTOR STARTERS WITH THERMAL RELAY

ATEX & IECEx IP66

Security, Possibilities and Continuity



Example screw closure (Geoex)



Example hinged closure (Luxorex)

This Ex motor magnetic starter has been designed to guarantee the correct operation and the protection of electric motors in high explosion risk areas.

It's used to control the electric motor's on and off switching and to protect it against overloads thanks to the thermal relay.

The device has the following components:

- Internal components:
 - Contactor: allows or blocks the current going through the circuit.
 - Thermal relay: switches off the circuit when the current used by the motor is higher than the current allowed, so avoiding the motor coil getting burned.
- Besides the control components, there is a double button on the cover, whose function is switching on the motor in the ON position (I) and off in the OFF position (0).

The Ex motor starter components, are protected inside an ATEX & IECEx enclosure, made of stainless steel AISI 304L. This enclosure has a specific design, being rustproof and with IP66 protection. It has a protection "Ex e" and "Ex d", enabling its use in zones with high explosion risk outdoors and open to rust.

We have two types of closures:

- Screw closure (Geoex)
- Hinged closure (Luxorex)

➔ **FOR MORE INFORMATION CLICK HERE**



MAGNETIC MOTOR STARTERS WITH THERMAL RELAY **ATEX & IECEX** IP66



ADVANTAGES

- This Ex motor starter allows a faster switching on after a thermal relay trip.
- It has a longer life thanks to the thermal relay, which avoids sudden motor cut offs and machine stops.
- It's coil is available with low voltages, controlling high capacity motors with a low tension circuit.
- There are many voltage and current possibilities for the Ex motor starter to choose from.
- It can be manufactured with AISI 316L.



OPTIONS

- We have two types of closures:
 - Screw closure (Geoex)
 - Hinged closure (Luxorex)
- The rated current of AC contactor can be chosen between: 12, 25 and 38A.
- The coil service voltage is between: 24, 36, 48, 110, 220-230 and 380-400V.
- The setting range of the thermo relay is really wide: 0.1-0.16, 0.16-0.25, 0.24-0.4, 0.4-0.63, 0.63-1, 1-1.6, 1.6-2.5, 2.4-4, 4-6, 5.5-8, 7-10, 9-13, 12-18, 16-24, 23-32 y 30-38A.
- The enclosure can be manufactured in stainless steel AISI 316L for marine or highly corrosive places.
- Cable glands available in any size and thread and can be of stainless steel.



TECHNICAL FEATURES

The rated voltage is 690V and the rated current 38A.

The contactor's rated voltage is 690V and the rated current is 38A. The thermal relay's rated voltage and current are the same as the contactor ones (so the starter rated voltage is 690V and the rated current 38A).

The power for which the Ex motor starter has been designed is between 4 and 18.5 kW.

It can work between two temperature ranges, giving it a higher use capacity.

- $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
- $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$

Regarding the enclosure:

- The joint between the cover and body, is to secure a really high degree of protection IP66.
- It has an "Ex e" and "Ex d" protection, to use in zones 1, 2, 21 and 22 with explosive atmospheres with dust and gas.
- It includes three cable glands in nickel plated brass with "Ex e" in M25.
- It is considered to give "Ex e" and "Ex d" protection, for use in zones 1, 2, 21 and 22 with explosive atmospheres with dust and gas.



MAGNETIC MOTOR STARTERS WITH THERMAL RELAY **ATEX & IECEx** IP66

PROTECTION MODE

This equipment is certified for use in potentially explosive atmospheres in 1, 2, 21 and 22 zones.

Atex mark:

- II2G Ex d e IICT6/T5 Gb
- II2D Ex tb IICT85°C /T I00°C Db
- Certificate number: LOMI4ATEX2082

- Certificate number: LOM I7ATEX1011

IECEx mark:

- Ex d e IICT6/T5 Gb
- Ex tb IICT85°C/T I00°C Db
- Certificate number: EX/LOM/IECEx



REGULATIONS

Atex directive and regulation:

- Atex directive 2014/34/EU
- EN 60079-0:2012
- EN 60079-1:2007
- EN 60079-7:2015
- EN 60079-31:2010

IECEx regulation:

- IEC 60079-0:2011
- IEC 60079-1:2006

- IEC 60079-7:2015
- IEC 60079-31:2013

Enclosure regulation:

- IP regulation (IP65): IEC 60529
- IK regulation (IK10): IEC 62262

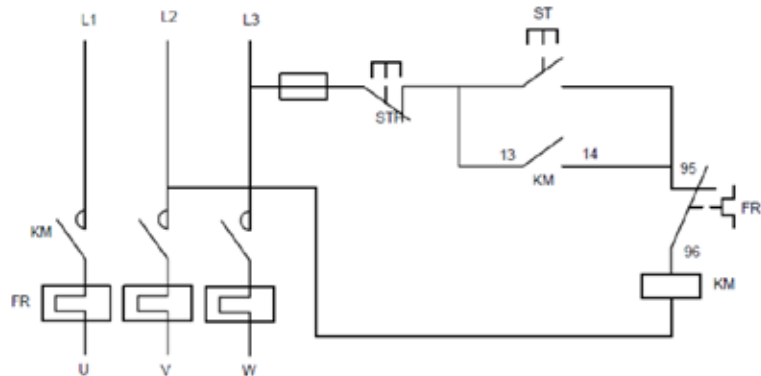
Low voltage directive and regulation:

- Directive 2014/35/EU
- EN 61439-1:2011
- EN 61439-2:2011

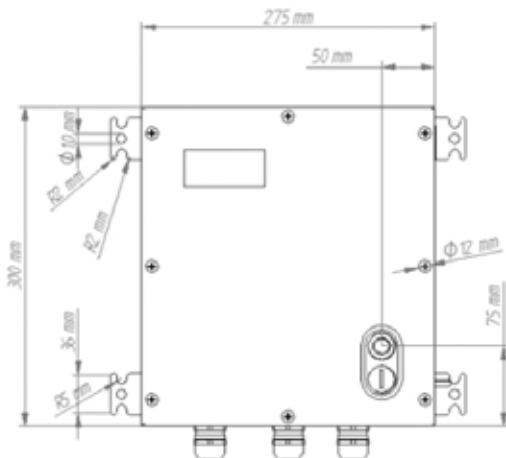


MAGNETIC MOTOR STARTERS WITH THERMAL RELAY **ATEX & IECEX** IP66

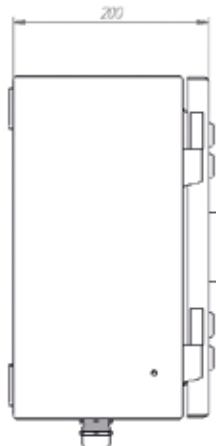
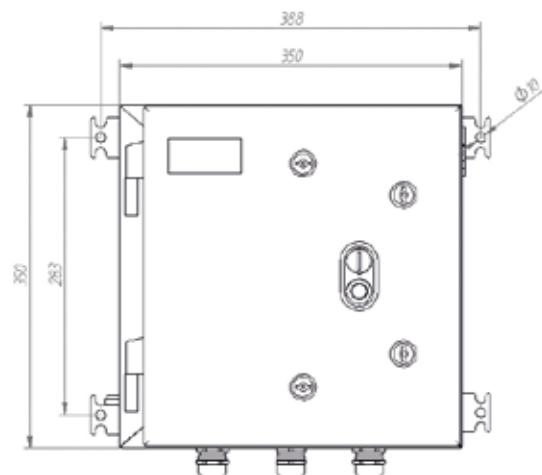
ELECTRICAL DIAGRAM



BLUEPRINT AND DIMENSIONS GEOEX



BLUEPRINT AND DIMENSIONS LUXOREX





MAGNETIC MOTOR STARTERS WITH THERMAL RELAY **ATEX & IECEx** IP66



REFERENCES

This magnetic motor starter includes several possibilities and as consequence of this we have created the bellow table to know the equipment's code.

TYPE	SETTING RANGE OF OVER LOAD TRIP (A)	POWER(KW)	VOLTAGE OF AC CONTACTOR COIL (V)	EX
MS	Choose one and write the highest number		Choose one. In case of two write the highest number	EX
	7-10	4		
	9-13	5.5		
	12-18	7.5		
	16-24	11	24	
	23-32	15	36	
	30-38	18.5	48	
			110	
			220-230	
			380-400	
	Choosing one the other is known automatically			

EXAMPLE GEOEX

Magnetic starter with thermal relay Geoex 16-24A,
380-400V voltage of AC contactor.

CODE

MS/24/11-400-EX

EXAMPLE LUXOREX

Magnetic starter with thermal relay Luxorex 23-32A,
380-400V voltage of AC contactor.

CODE

MS/32/15-400-EX-P



**Zones I, 2, 21 and 22**

INVERTER MOTOR STARTERS **ATEX & IECEx** IP66



Example screw closure (Geoex)



Example hinged closure (Luxorex)

Security and Strength for your Motors in Explosives Atmospheres

The inverter motor starter ATEX & IECEx has been designed to invert the turn of motor with guarantee and protection in high explosion risk zones.

It's used to control the electric motor switching, with two turns for switching on and off, besides protecting it against overloads thanks to the thermal relay.

This is achieved with two phase contactors and a thermal relay to protect the starting power peak.

The Ex motor starter components, are protected inside an ATEX & IECEx enclosure, IP66 made with stainless steel 304L.

This enclosure has a specific design, being rustproof and with IP66 protection. It has a protection "Ex e" and "Ex d", so enabling its use in zones with high explosion risk outdoor and open to rust.

We have two types of closures:

- Screw closure (Geoex)
- Hinged closure (Luxorex)

**FOR MORE INFORMATION CLICK HERE**



INVERTER MOTOR STARTERS **ATEX & IECEx** IP66

TECHNICAL FEATURES

The rated voltage is 690V and the rated current is from 12A to 38A.

The power for which the Ex motor starter has been designed is between 4 and 18.5 kW.

It can work between two temperature ranges, which give it a higher use capacity.

- $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
- $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$

Regarding the enclosure ATEX & IECEx :

- The joint between the cover and body, is designed to secure a really high degree protection IP66.
- It has an "Ex e" protection, to use it in zones 1, 2, 21 and 22 with explosive atmospheres with dust and gas.
- It includes three cable glands in nickel plated brass with "Ex e" in M25.



OPTIONS

- We have two types of closures:
 - Screw closure (Geoex)
 - Hinged closure (Luxorex)
- The rated current of AC contactor can be chosen between: 12, 25 and 38A.
- The coil service voltage is between: 24, 36, 48, 110, 220-230 and 380-400V.
- The setting range of thermo relay is really large: 7-10, 9-13, 12-18, 16-24, 23-32 y 30-38A.
- The enclosure can be manufactured in stainless steel AISI 316L for marine or highly corrosive places.
- Cable glands available in any size and thread and they can be in stainless steel.
- Possibility of different configurations, with indicator lights, emergency mushrooms...

ADVANTAGES

- Selecting the motor turn safely.
- This Ex motor starter allows a faster switching on after a thermal relay trip.
- It has a longer use thanks to the thermal relay, which avoids sudden motor stops and therefore machine stops.
- It's possible to get the coil with low voltages, controlling high capacity motors with a low tension circuit.
- There are so many voltage and current possibilities to choose from Ex motor starter: 12A to 38A.
- It can be manufactured with AISI 316L for marine atmospheres.
- Great versatility and possibilities.

INVERTER MOTOR STARTERS **ATEX & IECEX** IP66

PROTECTION MODE

This equipment is certified for use in potentially explosive atmospheres in 1, 2, 21 and 22 zones and it has a protection "Ex e" and "Ex d".

Atex mark:

- II2G Ex d e IICT6/T5 Gb
- II2D Ex tb IICT85°C /T100°C Db

- Certificate number: LOM14ATEX2082
- Certificate number: LOM17ATEX1011

IECEX mark:

- Ex d e IICT6/T5 Gb
- Ex tb IICT85°C/T100°C Db
- Certificate number: EX/LOM/IECEX



REGULATIONS

Atex directive and regulations:

- Directive Atex 2014/34/EU
- EN 60079-0:2012
- EN 60079-1:2007
- EN 60079-7:2015
- EN 60079-31:2010

IECEX regulations:

- IEC 60079-0:2011
- IEC 60079-1:2006

- IEC 60079-7:2015
- IEC 60079-31:2013

Enclosure regulation:

- Norme IP IEC 60529
- Norme IK IEC 62262

Low voltage directive and regulation:

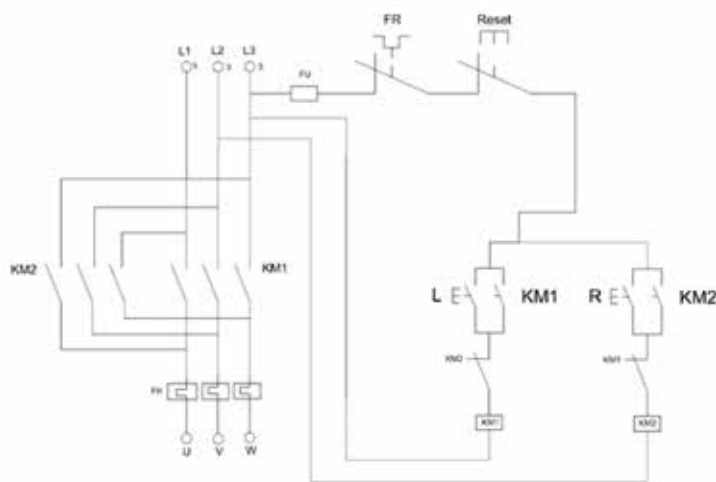
- Directive 2014/35/UE
- EN 61439-1:2011
- EN 61439-2:2011



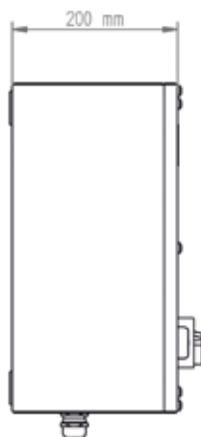
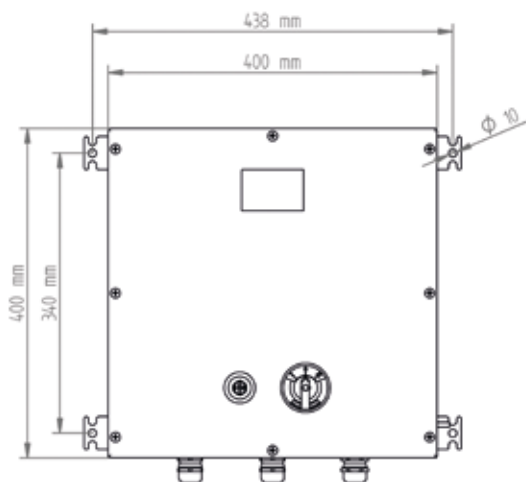
INVERTER MOTOR STARTERS **ATEX & IECEx** IP66



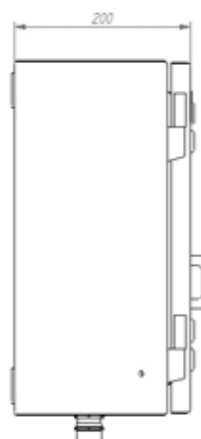
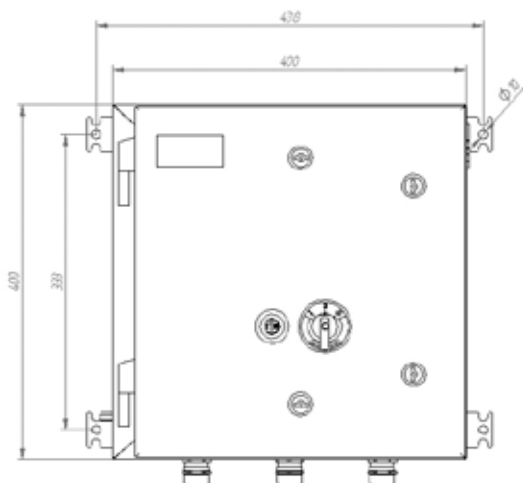
ELECTRIC DIAGRAM



BLUEPRINT AND DIMENSIONS GEOEX



BLUEPRINT AND DIMENSIONS LUXOREX



INVERTER MOTOR STARTERS **ATEX & IECEX** IP66

REFERENCES

This magnetic motor starter includes some possibilities and as consequence of this we have created the next table to know the equipment's code.

TYPE	SETTING RANGE OF OVER LOAD TRIP (A)	POWER (KW)	COIL SERVICE VOLTAGE (VAC)	EX
MSI	Choose one and write the highest number		Choose one. In case of two write the highest number	EX
	7-10	4	24	
	9-13	5,5	36	
	12-18	7,5	48	
	16-24	11	110	
	23-32	15	220-230	
	30-38	18,5	380-400	

EXAMPLE GEOEX

Inverter motor starter Geoex 16-24A and 220-230V voltage

CODE

MSI/24/230-EX

EXAMPLE LUXOREX

Inverter motor starter Luxorex 23-32A and 220-230V voltage

CODE

MSI/32/230-EX-P



Zones I, 2, 21 and 22

EX STAR TRIANGLE MOTOR STARTERS IP66



Example screw closure (Geoex)



Example hinged closure (Luxorex)

Used to Reduce the Peak Start Current in the Induction Ex Motors

The Atex & IECEx star-triangle motor starter has been designed for optimum performance at start-up.

This start-up mode is used to reduce the peak start current in the induction ex motors, which can damage the network and / or other receivers during the acceleration period of the machine.

The peak current, in direct connection, can reach 5 to 6 times the nominal motor current. With this method, the starting current will be reduced by 1/3 of the rated current and therefore there will be no danger of any component being damaged.

The Ex components of the Atex & IECEx motor starter are protected inside an Atex & IECEx enclosure, made of 304L stainless steel.

The enclosure has a specific design, being watertight, anticorrosive and with an IP66 protection. Achieving "Ex e" and "Ex d" protection, allowing its use in areas with a high risk of explosion.



FOR MORE INFORMATION CLICK HERE



EX STAR TRIANGLE MOTOR STARTERS IP66

TECHNICAL CHARACTERISTICS

The maximum rated voltage of the ATEX & IECEX motor starter is 690V and the rated current is from 12A to 38A.

The power for which the ATEX magnetic starter is designed is between 4 and 18.5 kW.

It is able to work between two temperature ranges to give it greater versatility:

- $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
- $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$

Regarding the ATEX & IECEX enclosure that surrounds it:

- The connection between the body and the cover is designed to ensure minimum IP66 protection.
- It has "Ex e" protection suitable for areas with explosive gas and dust atmospheres 1, 2, 21 and 22.
- Includes three Ex cable glands with "Ex e" protection made of nickel-plated brass or stainless steel from M25.
- It has "Ex e" and "Ex d" protection, suitable for zones 1, 2, 21 and 22, with explosive atmospheres of gas and dust.

OPTIONS

- We have two types of closures:
 - Screw closure (Geoex)
 - Hinged closure (Luxorex)
- The rated current of the Ex contactors is selectable between: 12, 25 and 38A.
- The control voltage has several options: 24, 36, 48, 110, 220-230 and 380-400V.
- The capacity range of the thermal relay is selectable between: 7-10, 9-13, 12-18, 16-24, 23-32 and 30-38A.
- The Ex enclosure can be made of AISI 316L stainless steel.
- ATEX cable gland of any size and thread in nickel plated brass & stainless steel.
- Possibility of different ex configurations, with indicator lights, emergency mushroom...



ADVANTAGES

- Reduction of Ex motor starting current, avoiding high voltage drop in the main supply system.
- It avoids interferences in equipment installed in the distribution system (network).
- Reduced cost in the protection system (cables, contactors), avoiding excessive oversizing.
- It allows adapting to the limitations imposed by the rules of distribution of electric power; in terms of voltage drop in the network.
- Suitable for loads requiring small starting force / pressure.
- Possibility of manufacturing of the enclosure in AISI 316L stainless steel for highly corrosive & marine environments.
- Great versatility and possibilities.
- Unique monobloc enclosure system that achieves perfect sealing and impact resistance. With pre-assembled body and door; and minimum welding.



EX STAR TRIANGLE MOTOR STARTERS

IP66



PROTECTION MODE

It is certified for use in potentially explosive atmospheres of zones 1, 2, 21 and 22 and has an "Ex e" and "Ex d".

Atex marking:

- II2G Ex d e IICT6 Gb
- II2D Ex tb IIIC T85°C Db

- Certificate number: LOM14ATEX2082
 - Certificate number: LOM17ATEX1011
- IECEx marking:

- Ex d e IICT6 Gb
- Ex tb IIIC T85°C Db
- Certificate number: EX/LOM/IECEx



CERTIFICATION

Atex directive and normative:

- Directiva Atex 2014/34/EU
- EN 60079-0:2012
- EN 60079-1:2007
- EN 60079-7:2015
- EN 60079-31:2010

IECEx normative:

- IEC 60079-0:2011
- IEC 60079-1:2006

- IEC 60079-7:2015
- IEC 60079-31:2013

Enclosure normative:

- Norme IP66 IEC 60529
- Norme IK10 IEC 62262

Low voltage directive and normative:

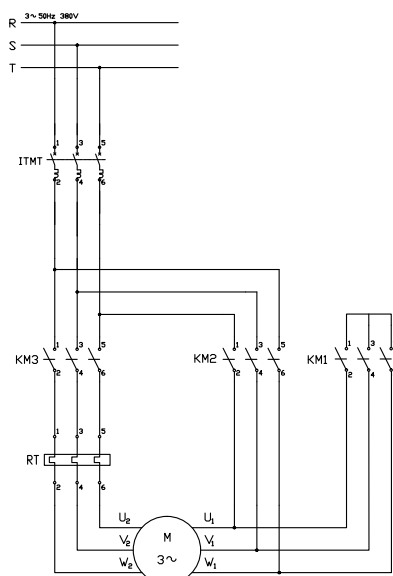
- Directiva de 2014/35/UE
- EN 61439-1:2011
- EN 61439-2:2011



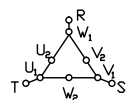
ELECTRIC DIAGRAM

The Ex star-triangle motor starter consists of two independent circuits, on one side is the power circuit and on the other the control circuit.

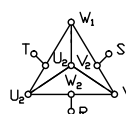
- Power circuit



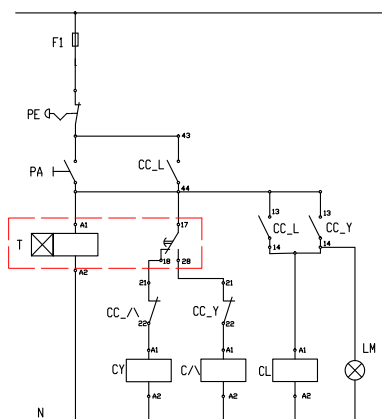
Slow gear



Fast gear

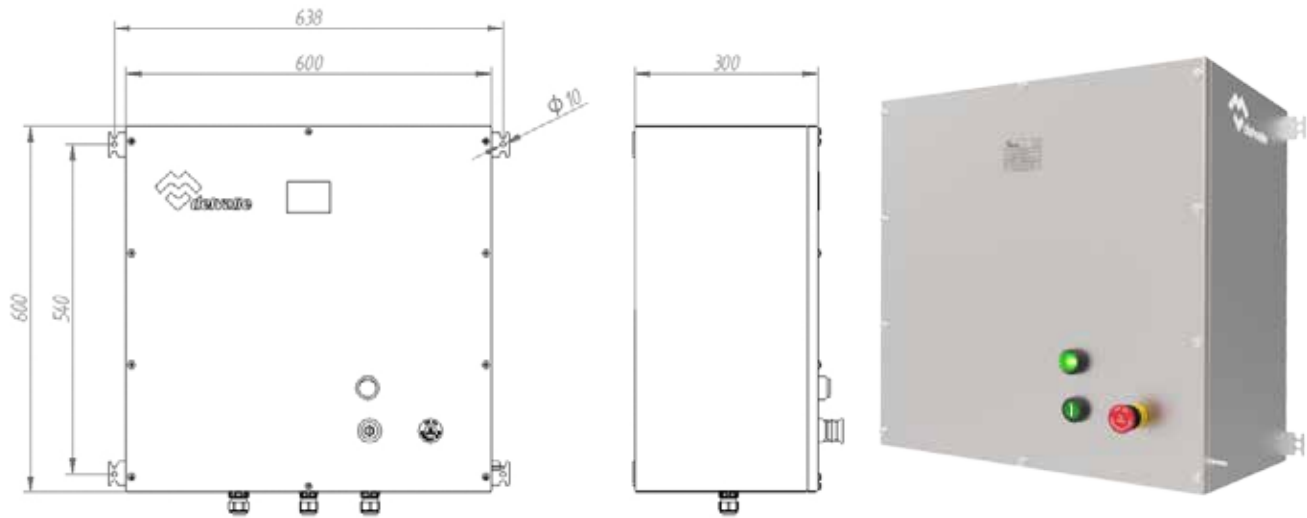


- Control circuit

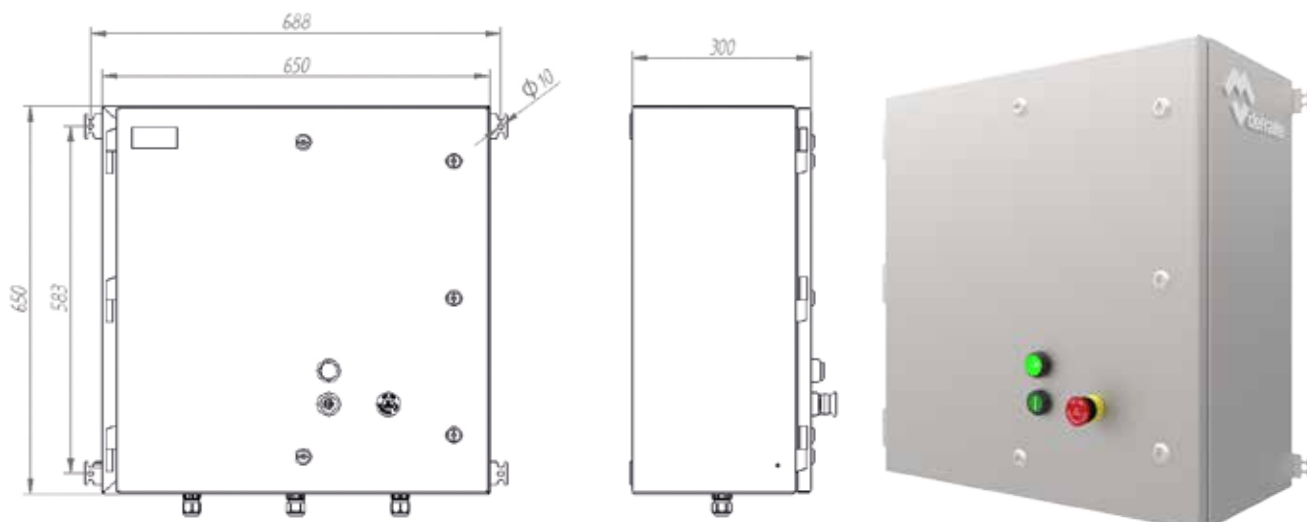


EX STAR TRIANGLE MOTOR STARTERS IP66

BLUEPRINT AND DIMENSIONS GEOEX



BLUEPRINT AND DIMENSIONS LUXOREX





EX STAR TRIANGLE MOTOR STARTERS IP66



REFERENCES

This table has been created to know the reference of the desired product with the chosen characteristics:

TYPE	THERMAL RELAY RANGE (A)	CONTACTOR CURRENT (A)	POWER (KW)	CONTROL VOLTAGE (VAC)	EX
MSD	Choose one and write the highest number			Choose one. In case of two write the highest number	EX
	7-10	12	4	24	
	9-13	25	5,5	36	
	12-18		7,5	48	
	16-24		11	110	
	23-32	38	15	220 - 230	
	30-38		18,5	380 - 400	

EXAMPLE GEOEX

Star-triangle starter Geoex with a range of 12-18A and a control voltage of 220-230Vac

CODE

MSD/18/230-EX

EXAMPLE LUXOREX

Star-triangle starter Luxorex with a range of 23-32A and a control voltage of 220-230Vac

CODE

MSD/32/230-EX-P





INDUSTRIAL WORKSTATIONS & HMI'S ATEX



**Zones 2 and 22**

INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI

ATEX & IECEx



Example Geoex



Example Luxorex

Affordable Electronics

Atex Delvalle PC operated workstations monitor HMI are an extension of control room connectivity out in the field. Every HMI workstation has been engineered to endure the harsh & hazardous environments of the plant floor, fully certified ATEX & IECEx. Access in the field saves time and prevents process upsets. The leveraging of desktop PCs for automation control is very common. PC operated workstations HMI are a completely enclosed HMI that outperforms the abysmal conditions aboard open sea and land drilling rigs. A virtually indestructible display for monitoring and control, it's suitable for the rig floor or anywhere an extremely rugged panel PC is required. PC operator workstations HMI is a zones 2 and 22 operated workstation. Its high-bright, LED backlit LCD panel provides high performance with a glove-friendly touchscreen. Rugged HMI's have replaced many hydraulic gauges, recorders, and counters used for drilling wells. Visualization provides greater detail compared to hydraulic gauges. It's been instrumental in improving the efficiency of the drilling operation and in proliferating drill-by-wire.

**FOR MORE INFORMATION CLICK HERE**

APPLICATIONS

- PC operator workstations HMI is a zone 2 & 22 operator workstation.
- Production energy exploration, extraction, and refining industries..



OPTIONS

- Flexible mounting options.
- Easily customized to fit your application.



INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI **ATEX & IECEx**

TECHNICAL FEATURES

- Portable and field maintainable.
- Passive liquid cooling dissipates heat without a cooling fan.
- Optically bonded LCD offers clear resolution under any light conditions.
- System prevents data loss in power failure
- High operating temp.
- 7 " screen high resolution and high contrast with screen quality of 16 million colors.
- Sunlight readable display.
- Transfer data using cable standard (Cable Ethernet standard, cable USB standard).
- Communication options: PROFIBUS and PORFINE.
- Flexible adaptation to each individual task and can be integrated in an existing infrastructure.
- Rugged and completely maintenance free for use directly at the machine, even outdoor and in shipbuilding.

NORMATIVE

- Directive 2014/34/UE
- EN 60079-0:2012
- EN60079-15:2013

MARKING

- II 3G Ex nA nC IICT4 Gc
- II 3D Ex tc IICT I 35°C Dc IP65

CERTIFICATE

- Delvalle I6ATEX0700
- Certificate LOM I4ATEX3028U
- Certificate LOM I4ATEX3026U

ADVANTAGES

- Complex processes can be displayed in much greater detail and laid out more clearly on larger monitors.
- Affordable electronics.
- Better processing speed for high-end graphics desired by machine builders.
- Siemens based open software systems offer the greatest flexibility and integration while improving learning curves.
- We offer dual rated operator workstations for Class I, Div. 2, and Zone 2,22 (Atex).
- The Atex & IECEx HMI workstations are optimized to perform under harsh and difficult conditions with wide temperature ranges, shock and vibration resistance, and overall ruggedness to stand up to the grimy, wet conditions commonly found in oil and gas, food processing, or chemical facilities.

CERTIFICATION

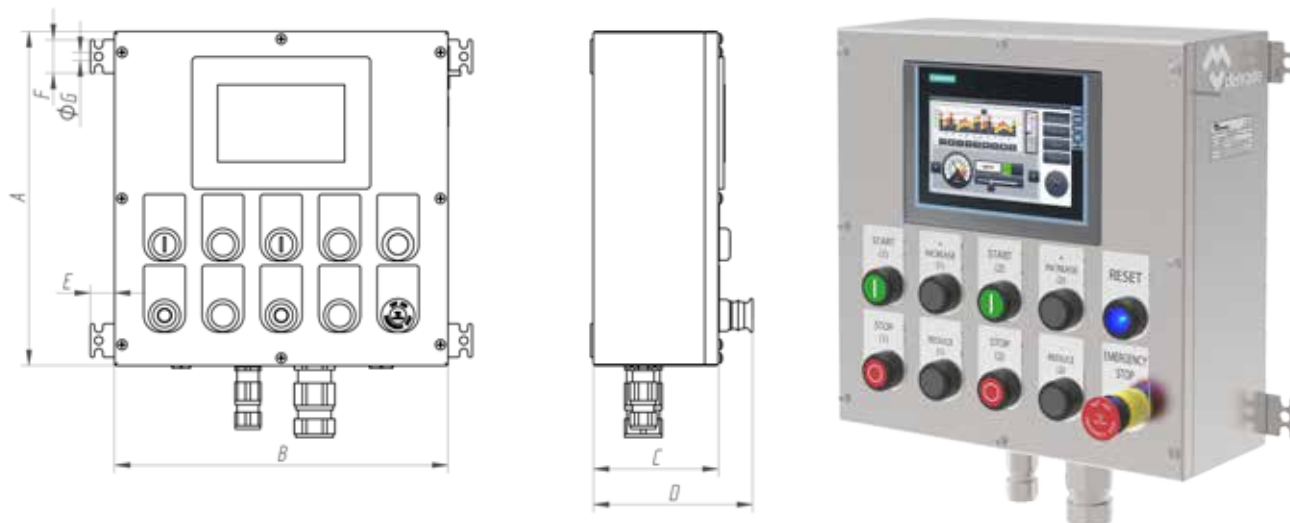
- Marked CE:Yes
- Culus:Yes
- RCM (previus C-TICK):Yes
- Homologation KC:Yes
- Naval certifications
 - Germanischer Lloyd (GL):Yes
 - American Bureau of Shipping (ABS):Yes
 - Bureau Veritas (BV):Yes
 - Det Norske Veritas (DNV):Yes
 - Lloyds Register of Shipping (LRS):Yes
 - Nippon Kaiji Kyokai (Class NK):Yes
- Use in potentially explosive atmospheres>
 - ATEX zone 2:Yes
 - ATEX zone 22:Yes
 - IECEx zone 2:Yes
 - IECEx zone 22:Yes
 - Culus Class I zone 2, division 2:Yes
 - FM Class I Division 2:Yes



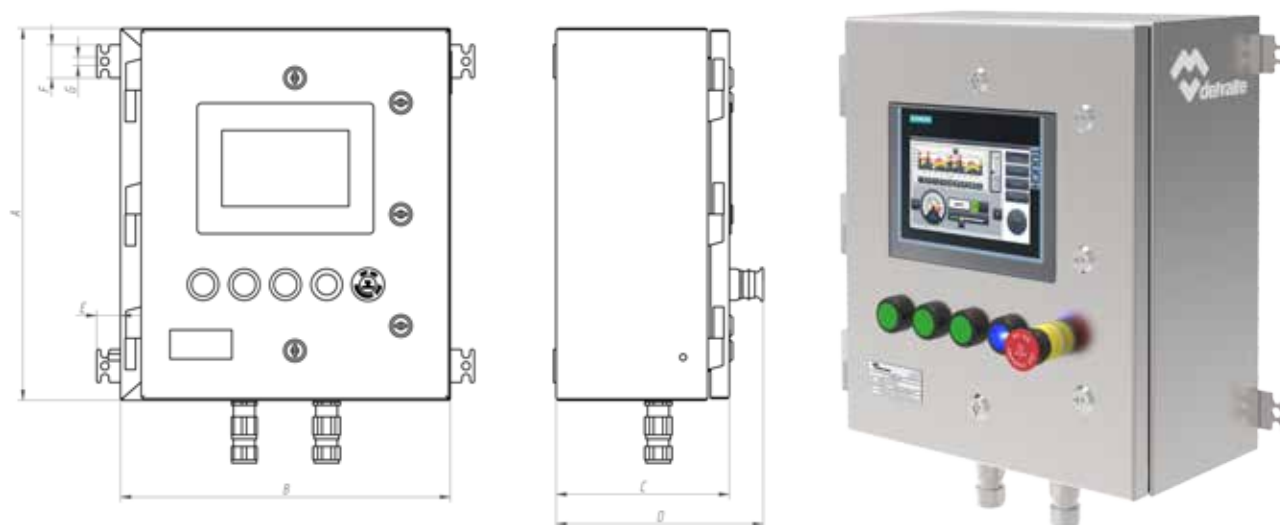
INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI **ATEX & IECEx**

BLUEPRINT AND DIMENSIONS

Enclosure Geoex PC without hinges



Enclosure Luxorex PC with hinges and locks



	DIMENSIONS (mm)						
	A	B	C	D	E	F	ØG
Enclosure without hinges	400	400	150	191	29	40	10
Enclosure with hinges and locks	400	450	210	251	29	40	10

INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI **ATEX & IECEx**

CRITERIA FOR CHOOSING TOUCH SCREEN HMI (7" - 9" - 12")



The Perfect Option for Wokstation HMI

Atex Delvalle PC operated workstations monitor HMI Ex can be used directly in hazardous zones 2 and 22 without the need for special measures such as complex and expensive enclosures or additional certification processes. Furthermore the units are capable of withstanding considerable vibrations and shocks and have been certified for use in shipbuilding.

We have various dimensions:

SIMATIC HMI TP700 - 7", SIMATIC HMI TP900 - 9" and SIMATIC HMI TP1200 - 12". There are also three-dimensional SIPLUS HMI TP700 - 7", SIPLUS HMI TP900 - 9" and SIPLUS HMI TP1200 - 12", which have a higher resistance to chemical and biological gases and have optimum reliability through a wide temperature range both in the start-up phase and during operation.



Industrial panel PC operator workstations monitor HMI is particularly suitable for operator control and monitoring, measuring and testing as well as for data collection, communication and other applications close to the machine in hazardous zones 2 and 22

With its 7 inch display the PC can handle standard visualization tasks as well as more demanding applications. Unit is also available with a particularly luminous display for use in daylight applications.



FOR MORE INFORMATION CLICK HERE



INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI **ATEX & IECEx**

TOUCH SCREEN HMI 7"

REF: SIMATIC HMI TP700



DISPLAY

- Display: TFT
- Screen diagonal: 7 in
- Display width: 152,4 mm
- Display height: 91,4 mm
- Color number: 16 777 216
- Resolution (pixels):
 - Horizontal image resolution: 800 Pixel
 - Vertical image resolution: 480 Pixel
- Backlighting
 - MTBF Backlighting (with 25 °C): 80 000 h
 - Variable Backlighting: Yes; 0-100 %



OTHER FEATURES

- Operating temperature: 0°C - 50°C
- Protection: IP65
- Use in hazardous areas: Atex zone 2 and 22.
- Certificates and normatives:
 - EN60079-15:2010, EN60079-0:2012+A11:2013 y EN60079-31:2014
 - III 3G Ex nA IICT4 Gc
 - III 3D Ex tc IICT70°C Dc



SUPPLY VOLTAGE

- Type of supply voltage: DC
- Permissible range, lower limit (DC): 19,2 V
- Permissible range, higher limit (DC): 28,8 V
- Purchase: 0,5 A
- Intensity of connection I²t: 0,5 A²·s



MEMORY

- Flash: Yes
- RAM: Yes
- Capacity of memory: 12 Mbyte



INTERFACES

- N° of interfaces Industrial Ethernet: 1; 2 (switch)
- N° of interfaces RS 485: 1; RS 422/485 combined
- N° of interfaces USB: 2; USB 2.0
 - USB mini-B: 1; 5
- N° of interfaces 20 mA (TTY): 0
- N° of interfaces RS 232: 0
- N° of interfaces RS 422: 0; RS485
- N° of parallel interfaces: 0
- N° other interfaces: 0
- Number of compact flash slots: 2
- Interfaces SW: No
- Industrial Ethernet
 - LED Industrial Ethernet: 2
 - N° switch ports integrated: 2
- Protocols PROFINET: Sí
- Supports protocol for PROFINET IO: Sí
- IRT: Yes; WinCC V12 or higher
- MRP: Yes; WinCC V12 or higher
- PROFIBUS: Yes
- MPI: Yes

INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI **ATEX & IECEx**

TOUCH SCREEN HMI 9"

REF: SIMATIC HMI TP900

DISPLAY

- Display: TFT
- Screen diagonal: 9 in
- Display width: 195 mm
- Display height: 117 mm
- Color number: 16 777 216
- Resolution (pixels):
 - Horizontal image resolution: 800 Pixel
 - Vertical image resolution: 480 Pixel
- Backlighting
 - MTBF Backlighting (with 25 °C): 80 000 h
 - Variable Backlighting: Yes; 0-100 %



OTHER FEATURES

- Operating temperature: 0°C - 50°C
- Protection: IP65
- Use in hazardous areas: Atex zone 2 and 22.
- Certificates and normatives:
 - EN60079-15:2010, EN60079-0:2012+A11:2013 y EN60079-31:2014
 - III 3G Ex nA IIC T4 Gc
 - III 3D Ex tc IIC T70°C Dc

SUPPLY VOLTAGE

- Type of supply voltage: DC
- Permissible range, lower limit (DC): 24V
- Permissible range, higher limit (DC): 19,2 V
- Purchase: 0,5 A
- Intensity of connection I²t: 0,5 A²·s

MEMORY

- Flash: Yes
- RAM: Yes
- Capacity of memory: 12 Mbyte

INTERFACES

- N° of interfaces Industrial Ethernet: 1; 2 (switch)
- N° of interfaces RS 485: 1; RS 422/485 combined
- N° of interfaces USB: 2; USB 2.0
 - USB mini-B: 1; 5
- N° of interfaces 20 mA (TTY): 0
- N° of interfaces RS 232: 0
- N° of interfaces RS 422: 0; RS485
- N° of parallel interfaces: 0
- N° other interfaces: 0
- Number of compact flash slots: 2
- Interfaces SW: No
- Industrial Ethernet
 - LED Industrial Ethernet: 2
 - N° switch ports integrated: 2
- Protocols PROFINET: Sí
- Supports protocol for PROFINET IO: Sí
- IRT: Yes; WinCC V12 or higher
- MRP: Yes; WinCC V12 or higher
- PROFIBUS: Yes
- MPI: Yes



INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI **ATEX & IECEx**

TOUCH SCREEN HMI 12"

REF: SIMATIC HMI TP1200

DISPLAY

- Display: TFT
- Screen diagonal: 12,1 in
- Display width: 261,1 mm
- Display height: 163,2 mm
- Color number: 16 777 216
- Resolution (pixels):
 - Horizontal image resolution: 1280 Pixel
 - Vertical image resolution: 800 Pixel
- Backlighting
 - MTBF Backlighting (with 25 °C): 80 000 h
 - Variable Backlighting: Yes; 0-100 %



OTHER FEATURES

- Operating temperature: 0°C - 50°C
- Protection: IP65
- Use in hazardous areas: ATEX zone 2 and 22.
- Certificates and normatives:
 - EN60079-15:2010, EN60079-0:2012+A11:2013 y EN60079-31:2014
 - III 3G Ex nA IICT4 Gc
 - III 3D Ex tc IICT70°C Dc

SUPPLY VOLTAGE

- Type of supply voltage: DC
- Permissible range, lower limit (DC): 24V
- Permissible range, higher limit (DC): 19,2 V
- Purchase: 0,5 A
- Intensity of connection I²t: 0,5 A²·s

MEMORY

- Flash: Yes
- RAM: Yes
- Capacity of memory: 12 Mbyte

INTERFACES

- N° of interfaces Industrial Ethernet: 1; 2 (switch)
- N° of interfaces RS 485: 1; RS 422/485 combined
- N° of interfaces USB: 2; USB 2.0
 - USB mini-B: 1; 5
- N° of interfaces 20 mA (TTY): 0
- N° of interfaces RS 232: 0
- N° of interfaces RS 422: 0; RS485
- N° of parallel interfaces: 0
- N° other interfaces: 0
- Number of compact flash slots: 2
- Interfaces SW: No
- Industrial Ethernet
 - LED Industrial Ethernet: 2
 - N° switch ports integrated: 2
- Protocols PROFINET: Sí
- Supports protocol for PROFINET IO: Sí
- IRT: Yes; WinCC V12 or higher
- MRP: Yes; WinCC V12 or higher
- PROFIBUS: Yes
- MPI: Yes

**Zones 1, 2, 21 and 22**

WORKSTATIONS ATEX **PCEX SERIES**

**Designed Especially
for High Risk Areas**



Example

➔ **FOR MORE INFORMATION CLICK HERE**

The Atex Delvalle workstation is manufactured to be used in hazardous areas zones 1, 2, 21 and 22.

It easily passes even the strictest tests of hitting, overpressure, rusting, thermal effects... we have been able to put it to.

The floor processing conditions can be very adverse.

Industrial monitors can be exposed to high humidity, extreme temperature changes as well as come into contact with chemical products solvents, and pressurised cleaning systems.

For our workstation all these are easily overcome by installing in the operating area only the most essential components and using data cables to establish connections between the secure area and the equipment.

This separation reduces contact between the components and the problematic conditions reducing any chances of error.





WORKSTATION ATEX **PCEX SERIES**



TECHNICAL FEATURES

- Intel® Atom processor
- Compact flash: 512MB memory
- 24 V DC Voltage
- Consumption max. 75 W



ADVANTAGES

- Designed especially for high risk areas.
- Higher security giving cost savings.
- Long lasting solution thus cost saving over time connecting the conventional equipment (RJ45) in a secure area to the remote control equipment in the ATEX area using the Ethernet standard network server connection without expensive convertibles.
- Less TI infrastructure: Linked to various servers from one sole workstation.
- Compatible with RDP applications: Servicing to Microsoft, Citrix, ICA o VNC RFB.
- Compressed video transmission: Only transferring changes in graphs.
- No need to install software: System can be modernised, the equipment replaced without infrastructure changes
- Low energy consumption: Allows the unit to save energy and not heat up at rest.



MATERIALS

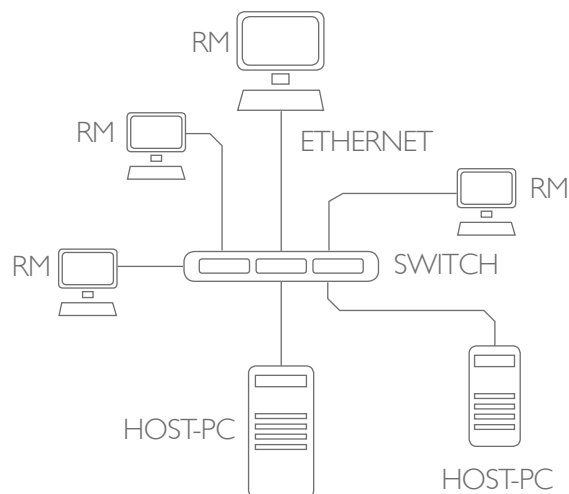
- AISI304 L and AISI316 L
- Protection IP66 and Type 4X



MOUNTINGS

The conventional PC is taken out of the secure area, in Zones 1, 2, 21 and 22 the workstation is set up connecting the PC through ethernet and a special box of cable connections CAT 7 with entry RJ45 is placing next to the PC in the secure area.

A workstation network can be connected to PC servers.



REMOTE CONTROL FEATURES

Following our tradition in high manufacturing resistant industrial monitors all models are manufactured using only quality components.

The workstation has certificates recognised worldwide for areas 1, 2, 21 and 22 and areas of type I and II, as well as division 2. Optional touch screen using anti reflective hardened transfective glass.

All the industrial monitors are manufactured under the strictest mechanical and security requirements used in chemical, pharmaceutical and petrochemical industries.

WORKSTATION ATEX **PCEX SERIES**

OPTIONS



1. FLOOR MOUNTING



2. CEILING MOUNTING



3. TABLE MOUNTING



4. WALL MOUNTING

**CHOOSE YOUR MOUNTING OPTION AND PERSONALISE
YOUR WORKSTATION PCEX WITH DIFFERENT ACCESSORIES**

KEYBOARD

- Joystick mouse
- Ball mouse
- Touchpad
- Language (US international, German, French)

BAR CODE READER

Interface:

- 1 x Ethernet, 1 x USB (Ex e), 2 x USB (IS)
- 1 x Ethernet, 1 USB (Ex e), 3 USB (IS), 1 RS232 (Ex e).
- Only works on special screens

INTERFACES

Zones 2 and 22:

- 2 x 1GB Ethernet y 2 x USB
- Audio
- RS232
- Power

Zones 1 and 21:

- Keyboard and mouse (Ex i)
- 1x Ethernet (Ex e) y 1 x USB (Ex e)

SCREENS 15", 19" AND 22"

- Antireflective glass
- Type: TFT, LCD
- Resolution: 1280x1024 pixels
- Colours: 24 bits. 16,7 million
- Contrast: 1000:1
- Brightness: 400 nit
- Visual angle: 160° in all directions
- Optional touch screen



WORKSTATION ATEX **PCEX SERIES**



CE CERTIFICATE



NORMS AND CERTIFICATES

- Zones 2 and 22:
 - Certification Ex:
 - II 3G Ex nA IICT4 Gc
 - II 3G Ex nA IICT4 Gc
 - Norme UL:
 - Clase I/ División 2, A – D
 - Clase II División 2, F&G, T4
 - Norme IECEx:
 - II 3G Ex nA IICT4 Gc
 - II 3G nA IICT4 Gc
- Directive 2014/34/UE :
 - EN 60079-15:2010
 - EN 60079-0:2009
 - IECEx 60079-14
 - IECEx 60079-0
- Zones I and 2I:
 - Certificate Ex:
 - IECEx y Atex (II 2G, II 2D)
 - Ex e mb q [ib] IICT4 Gb.
 - Ex tb [ib] IICT85°C Db.



REFERENCES

PCEX SERIES • WORKSTATION	
REFERENCES	DESCRIPTION
WS100IT	Keyboard and mouse - Ex 1 for workstation
WS200IT	Keyboard and mouse - Ex 2 for workstation
WS100IT	Screen Ex 1 and 2I IECEx19"
WS200IT	Screen Ex 2 and 22 IECEx19"
WSF00IE	Enclosure floor mounting workstation
WSF00IE	Enclosure ceiling mounting workstation
WSW00IE	Enclosure wall mounting workstation
WST00IE	Enclosure table mounting workstation



STAINLESS
ANTICORROSIVE



MECHANICAL
PARTS





Zones I, 2, 21 and 22

INDICATORS AND DISPLAYS ATEX

Products Available as a Portable Device or for Panel Mounting



Example screw closure (Geoex)



Example indicator



Example hinged closure (Luxorex)

We have different types of indicators:

- **Fieldbus display and Fieldbus indicators:** these fieldbus devices can have up to 8 different variables, with which different values will be measured and calculated, and the fieldbus users' status information will be provided in a fieldbus network. In monitoring mode, the device monitors the configured bus addresses and displays their specific values. Also, the values available on the bus can be displayed by interconnecting the function blocks in the case of a fieldbus indicator. The status of the process value is displayed with icons or as text in the indicator itself. The device receives power from the fieldbus and can be used in hazardous areas up to temperature class T6. Compatible with FOUNDATION protocol and PROFIBUS PA protocol.
- **Totalizers:** they are measuring devices capable of retaining data and quantifying them. And simultaneously, provide information on the accounting of such data. They can also be programmed to act in a certain way when any of the data collected exceeds a previously defined value.
- **Serial text displays:** these screens provide messages, warnings or suggestions in areas of explosive atmospheres I and 21.

These devices are elements of intrinsic safety; which is based on limiting the energy of the possible spark so as to prevent it. This is very interesting in the areas of explosive atmospheres, since in this way, the apparatus have no need of other elements of protection.



FOR MORE INFORMATION CLICK HERE



INDICATORS AND DISPLAYS ATEX

TECHNICAL CHARACTERISTICS

Field bus Displays

These versatile instruments have eleven standard selectable screen formats, which contain one, two, three, four or eight fieldbus process variables, some with graphical bars, along with units of measure and descriptions. Therefore, up to eight fieldbus variables can be viewed simultaneously on a single screen. Front panel pushbuttons allow the operator to move between screens.

This type of viewers has the following characteristics:

- Bus powered
- 11 standard screens with up to 8 variables in each with graphic bars.
- Compatible with all common fieldbus hosts
- Backlight
- Compatible with FOUNDATION protocol and with PROFIBUS PA protocol
- Ex i intrinsically safe applications
- General Purpose Applications
- Portable and panel mount
- Accessories:
 - Alarms
 - Tagging
 - Piping Mounting Kits

Field bus Indicators

- Bus powered
- Large 5-digit display and 31-segment bar graph
- Compatible with most fieldbus hosts
- Selectable node or listening mode
- Models for:
 - Simple Variable
 - 8 variables
- Compatible with FOUNDATION protocol and with PROFIBUS PA protocol
- Intrinsically safe Ex i applications
- Applications "Ex n" in Zone 2
- General purpose applications
- Portable and panel mounting
- Accessories:
 - Scaling and labeling
 - Piping Mounting Kits

Totalizers

This extensive range of speed totalizers includes models for use with pulse meters and 4 / 20mA output flowmeters. The flow rate and total flow

are displayed simultaneously in the same or different units. All parameters are easy to set up on the spot, allowing these speed totalizers to be used with almost any flow meter. Instruments can be supplied ready to install with customer-specified settings, scale and marking of the label.

- Robust housings, including stainless steel panel mounting tool.
- Models:
 - One pulse input, externally powered
 - Pulse inputs, externally supplied
 - 4 / 20mA input, loop-fed
- Portable and panel mounting
- Certifications:
 - Ex ia Intrinsic Injection
 - Ex nA & Ex tc for Zone 0, 2, 20 and 22 applications
 - General purpose for use in safe area
- Accessories:
 - Backlight
 - Isolated double alarms
 - Pulse isolated and outputs of 4 / 20mA
 - Piping Mounting Kits
 - Scaling and labeling

Serial text displays

These serial text displays feature a high-contrast backlit display, push buttons and two solid-state outputs to form a low-cost operator interface that is ideal for simple process and machine control applications.

- Show text and simple graphics
- High contrast backlit display
- It incorporates the buttons of the operator
- Modbus, legacy and BEKA protocols
- RS232 and RS485 ports
- 11 standard screens with up to 8 variables in each
- 2 solid state outputs
- Galvanic isolator for applications in hazardous areas
- Models for:
 - Intrinsically safe Ex i applications
 - General purpose applications
- Portable and panel mounting
- Accessories:
 - Piping Mounting Kits



INDICATORS AND DISPLAYS ATEX

ADVANTAGES

- Specially designed for Atex environments, these devices are intrinsically safe
- Devices capable of measuring and calculating up to 8 variables
- Backlight displays
- RS232 and RS485 ports and two solid state outputs

PROTECTION MODE

Fieldbus display:

- II I G, Ex ia IICT4 Ga

Fieldbus indicators:

- II I G, Ex ia IICT4 Ga
- II 3G, Ex ic IICT4 Gc

Totalizers:

- II I G, Ex ia IICT5 Ga
- II I G, Ex ia IICT80°C Da
- Ex ia IICT6
- Ex ia IICT5

Serial text displays:

- II I G, Ex ia IICT5 Ga
- II 2 G, Ex ib IICT6

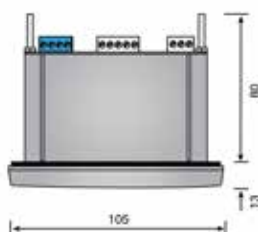


STAINLESS
ANTICORROSIVE

REGULATIONS

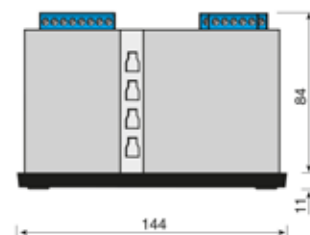
- Comply with the Atex 2014/34 / EU Directive
- EN 60079-0:2009
- EN 60079-7:2007
- EN 60079-11:2012
- EN 60079-31:2009
- II 1/2G Ex ia/ib II* T6 Ga/Gb.
- II 1/2D Ex ia/ib IICT80°C Da/Db
- Atex certificate for zone 0, 20, I, 21, 2 y 22
- Certificates:
 - As component: LOM I4Atex3028U
 - As equipment: LOM I4Atex2082
- Quality certificate:
 - LOM I4Atex9050
- Degree of protection: depending on model, up to IP66

INDICATOR BLUEPRINT AND DIMENSIONS



- Indicator BA327E-SS
- Indicator BA327E-SS
- Totalisers BA337E-SS
- Counter BA367E-SS

- Text displays
BA488C

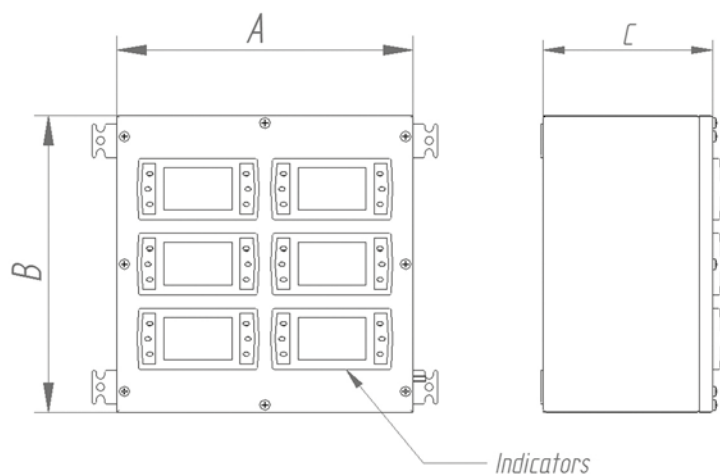




INDICATORS AND DISPLAYS ATEX



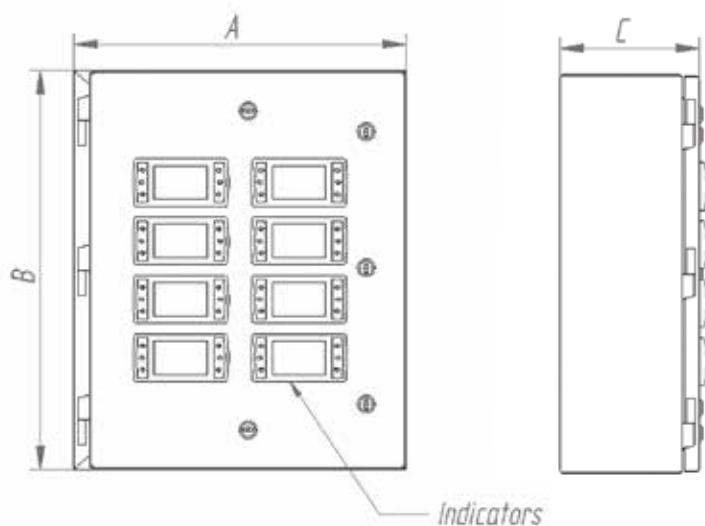
BLUEPRINT AND REFERENCES GEOEX



REFERENCES	HEIGHT	WIDTH	DEPTH	N° OF INDICATORS
GEOCS202012IEX	200	200	120	2
GEOCS302015IEX	300	200	155	3
GEOCS303520IEX	300	350	200	6
GEOCS353520IEX	350	350	200	6



BLUEPRINT AND REFERENCES LUXOREX



REFERENCES	HEIGHT	WIDTH	DEPTH	N° OF INDICATORS
LXCS3830155IEX	380	300	155	3
LXCS5040211IEX	500	400	210	4
LXCS6050211IEX	600	500	210	8
LXCS1008040IEX	1000	800	400	24

INDICATORS AND DISPLAYS ATEX

CRITERIA FOR CHOOSING INDICATORS WITH INTRINSIC SAFETY



Example indicator BA307E-SS



Example indicator BA327E-SS



Example totalizer BA337E-SS



Example counter BA367E-SS



Example text displays BA488C

Devices Capable of Measuring and Calculating Up to 8 Variables

We have different types of indicators:

- **Fieldbus display and Fieldbus indicators:** these fieldbus devices can have up to 8 different variables, with which different values will be measured and calculated, and the fieldbus users' status information will be provided in a fieldbus network. In monitoring mode, the device monitors the configured bus addresses and displays their specific values. Also, the values available on the bus can be displayed by interconnecting the function blocks in the case of a fieldbus indicator. The status of the process value is displayed with icons or as text in the indicator itself. The device receives power from the fieldbus and can be used in hazardous areas up to temperature class T6. Compatible with FOUNDATION protocol and PROFIBUS PA protocol.
- **Totalizers:** they are measuring devices capable of retaining data and quantifying them. And simultaneously, provide information on the accounting of such data. They can also be programmed to act in a certain way when any of the data collected exceeds a previously defined value.
- **Serial text displays:** these screens provide messages, warnings or suggestions in areas of explosive atmospheres 1 and 21.



FOR MORE INFORMATION CLICK HERE



INDICATORS AND DISPLAYS ATEX

4/20mA LOOP POWERED INDICATORS

There are two products of this type, BA307E and BA327E indicators.

BA307E-SS

These indicators are perfect for placement in panels or envelopes and presenting a larger screen than its predecessors, in addition they offer a very good visualization of data and measurements.



CHARACTERISTICS

- Atex & IECEx certificates or intrinsically safety.
- IP66 protection on the front, which is the one that will be located outside the enclosure.
- Made of stainless steel and designed to be placed in enclosures with "Ex e", "Ex p" and "Ex t" protection.
- Prepared for use in zones 0, I, 2, 21 and 22.
- Operating in a temperature range from -40 °C to 70 °C.
- They also have internal calibrator; root extractor and linearizer as well as a tare function.
- The screen has dimensions of 105x60 and the measurements are displayed by 4 digits of 15mm.
- Electrical parameters / Input Current Voltage:
 - 4 to 20mA
 - Less than 1.2V at 20 °C
 - Less than 1.3V at -40 °C
 - Less than 5V with optional backlight display
 - Safety range $\pm 200\text{mA}$ or $\pm 30\text{V}$

OPTIONS

- There are indicators of the same series but of plastic material, which also have IP66 protection on the front, although they are not as resistant as those of stainless steel. In addition, this model made of plastic has a smaller screen (98x48).
- Available with backlight displays, which can be loop or separately powered.
- Optional dual alarm output.

ADVANTAGES

- High water and impact resistance, especially the version made of stainless steel.
- Very visual display with possibility to include backlighting.
- IECEx and Atex certifications with intrinsic safety for use in explosive atmospheres.
- Specific design to be placed in any type of enclosure or panel.
- Wide applicated temperature range.

PROTECTION MODE

- Atex protection mode:
 - II IG, Ex ia IICT5 Ga -40°C $\leq$ Ta $\leq$ +70°C
 - II ID Ex ia IICT80°C Da IP20 -40°C $\leq$ Ta $\leq$ +70°C
- IECEx protection mode:
 - Ex ia IICT5 Ga -40°C $\leq$ Ta $\leq$ +70°C
 - Ex ia IICT80°C Da IP20 -40°C $\leq$ Ta $\leq$ +70°C
- Degree of protection IP66 on the front and IP20 for the rest.
- Input parameters:
 - $V_i = 30\text{V dc}$
 - $I_i = 200\text{mA}$
 - $P_i = 0,84\text{W}$

INDICATORS AND DISPLAYS ATEX

BA327E-SS

These Indicators are very similar to the BA307E series. They also include a bargraph and one more digit, which allows visualizing measurements with more precision.



CHARACTERISTICS

- Atex & IECEx certificates or intrinsically safety.
- IP66 protection on the front, which is the one that will be located outside the enclosure.
- Made of stainless steel and designed to be placed in enclosures with "Ex e", "Ex p" and "Ex t" protection.
- Prepared for use in zones 0, I, 2, 21 and 22.
- Operating in a temperature range from -40 °C to 70 °C.
- They also have internal calibrator, root extractor and linearizer as well as a tare function.
- The screen has dimensions of 105x60 and the measurements are displayed by 4 digits of 15mm.
- Electrical parameters / Input Current Voltage:
 - 4 to 20mA
 - Less than 1.2V at 20 °C
 - Less than 1.3V at -40 °C
 - Less than 5V with optional backlight display
 - Safety range $\pm 200\text{mA}$ or $\pm 30\text{V}$

OPTIONS

- There are indicators of the same series but of plastic material, which also have IP66 protection on the front, although they are not as resistant as those of stainless steel. In addition, this model made of plastic has a smaller screen (98x48).
- Available with backlight displays, which can be loop or separately powered.
- Optional dual alarm output.

ADVANTAGES

- High water and impact resistance, especially the version made of stainless steel.
- Very visual display with possibility to include backlighting.
- IECEx and Atex certifications with intrinsic safety for use in explosive atmospheres.
- Specific design to be placed in any type of enclosure or panel.
- Wide applied temperature range.

PROTECTION MODE

- Atex protection mode:
 - II IG, Ex ia IICT5 Ga -40°C $\leq$ Ta $\leq$ +70°C
 - II ID Ex ia IICT80°C Da IP20 -40°C $\leq$ Ta $\leq$ +70°C
- IECEx protection mode:
 - Ex ia IICT5 Ga -40°C $\leq$ Ta $\leq$ +70°C
 - Ex ia IICT80°C Da IP20 -40°C $\leq$ Ta $\leq$ +70°C
- Degree of protection IP66 on the front and IP20 for the rest.
- Input parameters:
 - $V_i = 30\text{V dc}$
 - $I_i = 200\text{mA}$
 - $P_i = 0,84\text{W}$



INDICATORS AND DISPLAYS ATEX

PULSE INPUT EXTERNALLY POWERED RATE TOTALISERS

BA337E-SS

These indicators are perfect for placement in panels or envelopes and presenting a larger screen than its predecessors, in addition they offer a very good visualization of data and measurements.



OPTIONS

- There are indicators of the same series but of plastic material (Noryl), which also have IP66 protection on the front, although they are not as resistant as those of stainless steel. In addition, this model made of plastic has a smaller screen (98x48).
- Available with backlight displays, which can be loop or separately powered.
- Alarms.
- Isolated synchronous pulse output
- Isolated 4/20mA output

ADVANTAGES

- High water and impact resistance, especially the version made of stainless steel.
- Very visual display with possibility to include backlighting.
- IECEx and Atex certifications with intrinsic safety for use in explosive atmospheres.
- Specific design to be placed in any type of enclosure or panel.
- Wide applied temperature range.

CHARACTERISTICS

- Atex & IECEx certificates or intrinsically safety.
- IP66 protection on the front, which is the one that will be located outside the enclosure.
- Made of stainless steel and designed to be placed in enclosures with "Ex e", "Ex p", "Ex n" and "Ex t" protection.
- Prepared for use in zones 0, 1, 2, 21 and 22.
- Two display modes. The primary has a screen of 8 digits of 9mm and the secondary one with 6 digits of 6mm.
- They also have linearizer as well as proximity sensor, magnetic pickup, voltage impulse or switch contact input.
- The screen has dimensions of 105x60 in the version made of stainless steel.
- Electrical parameters / Power Supply:
 - Voltage » 10 to 28V from a Zener barrier or galvanic isolator
 - Current » 16mA max plus 22.5mA for optional backlight

INPUT	LOWER	UPPER
Switch contact	100Ω	1kΩ
Proximity detector (NAMUR)	1,2mA	2,1mA
Open collector	2kΩ	10kΩ
Magnetic pick-off	0	+40mV
Voltage pulse (low)	1V	3V 28V max
Voltage pulse (high)	3V	10V 28V max

PROTECTION MODE

- Atex protection mode:
 - II IG, Ex ia IICT5 Ga -40°C ≤ Ta ≤ +60°C
 - II ID Ex ia IICT80°C Da IP20 -40°C ≤ Ta ≤ +60°C
- IECEx protection mode:
 - Ex ia IICT5 Ga -40°C ≤ Ta ≤ +60°C
 - Ex ia IICT80°C Da IP20 -40°C ≤ Ta ≤ +60°C
- Degree of protection IP66 on the front and IP20 for the rest.

INDICATORS AND DISPLAYS ATEX

COUNTERS

BA367E-SS

These indicators are perfect for placement in panels or envelopes and presenting a larger screen than its predecessors, in addition they offer a very good visualization of data and measurements.



OPTIONS

- There are indicators of the same series but of plastic material (Noryl), which also have IP66 protection on the front, although they are not as resistant as those of stainless steel. In addition, this model made of plastic has a smaller screen (98x48).
- Available with backlight displays, which can be loop or separately powered.
- Alarms.
- Isolated synchronous pulse output
- Isolated 4/20mA output

ADVANTAGES

- High water and impact resistance, especially the version made of stainless steel.
- Very visual display with possibility to include backlighting.
- IECEx and ATEX certifications with intrinsic safety for use in explosive atmospheres.
- Specific design to be placed in any type of enclosure or panel.
- Wide applied temperature range.

CHARACTERISTICS

- ATEX & IECEx certificates or intrinsically safety.
- IP66 protection on the front, which is the one that will be located outside the enclosure.
- Made of stainless steel and designed to be placed in enclosures with "Ex e", "Ex p", "Ex n" and "Ex t" protection.
- Prepared for use in zones 0, 1, 2, 21 and 22.
- Two display modes. The primary has a screen of 8 digits of 9mm and the secondary one with 6 digits of 6mm.
- They also have linearizer as well as proximity sensor, magnetic pickup, voltage impulse or switch contact input.
- The screen has dimensions of 105x60 in the version made of stainless steel.
- Electrical parameters / Power Supply:
 - Voltage » 10 to 28V from a Zener barrier or galvanic isolator
 - Current » 16mA max plus 22.5mA for optional backlight

INPUT	LOWER	UPPER
Switch contact	100Ω	1kΩ
Proximity detector (NAMUR)	1,2mA	2,1mA
Open collector	2kΩ	10kΩ
Magnetic pick-off	0	+40mV
Voltage pulse (low)	1V	3V 28V max
Voltage pulse (high)	3V	10V 28V max

PROTECTION MODE

- ATEX protection mode:
 - II IG, Ex ia IICT5 Ga -40°C ≤ Ta ≤ +60°C
 - II ID Ex ia IICT80°C Da IP20 -40°C ≤ Ta ≤ +60°C
- IECEx protection mode:
 - Ex ia IICT5 Ga -40°C ≤ Ta ≤ +60°C
 - Ex ia IICT80°C Da IP20 -40°C ≤ Ta ≤ +60°C
- Degree of protection IP66 on the front and IP20 for the rest.



INDICATORS AND DISPLAYS ATEX

TEXT DISPLAYS

BA488C

These screens provide messages, warnings or suggestions in areas of explosive atmospheres 0, I and 2.



OPTIONS

- Screen available with backlighting.
- Standard or customized format: 1, 2, 3, 4 or 8 variables
- If larger industrial switches are required, they can be connected to the rear terminals.
- It allows you to design and store custom screen formats in memory using a wide selection of lines, charts, bars and fonts.

PROTECTION MODE

- ATEX protection mode:
 - I G Ex ia II CT5 Ga $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$
- IECEx protection mode:
 - Ex ia II CT5 Ga $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$
- Degree of protection IP66 on the front and IP20 for the rest.

CHARACTERISTICS

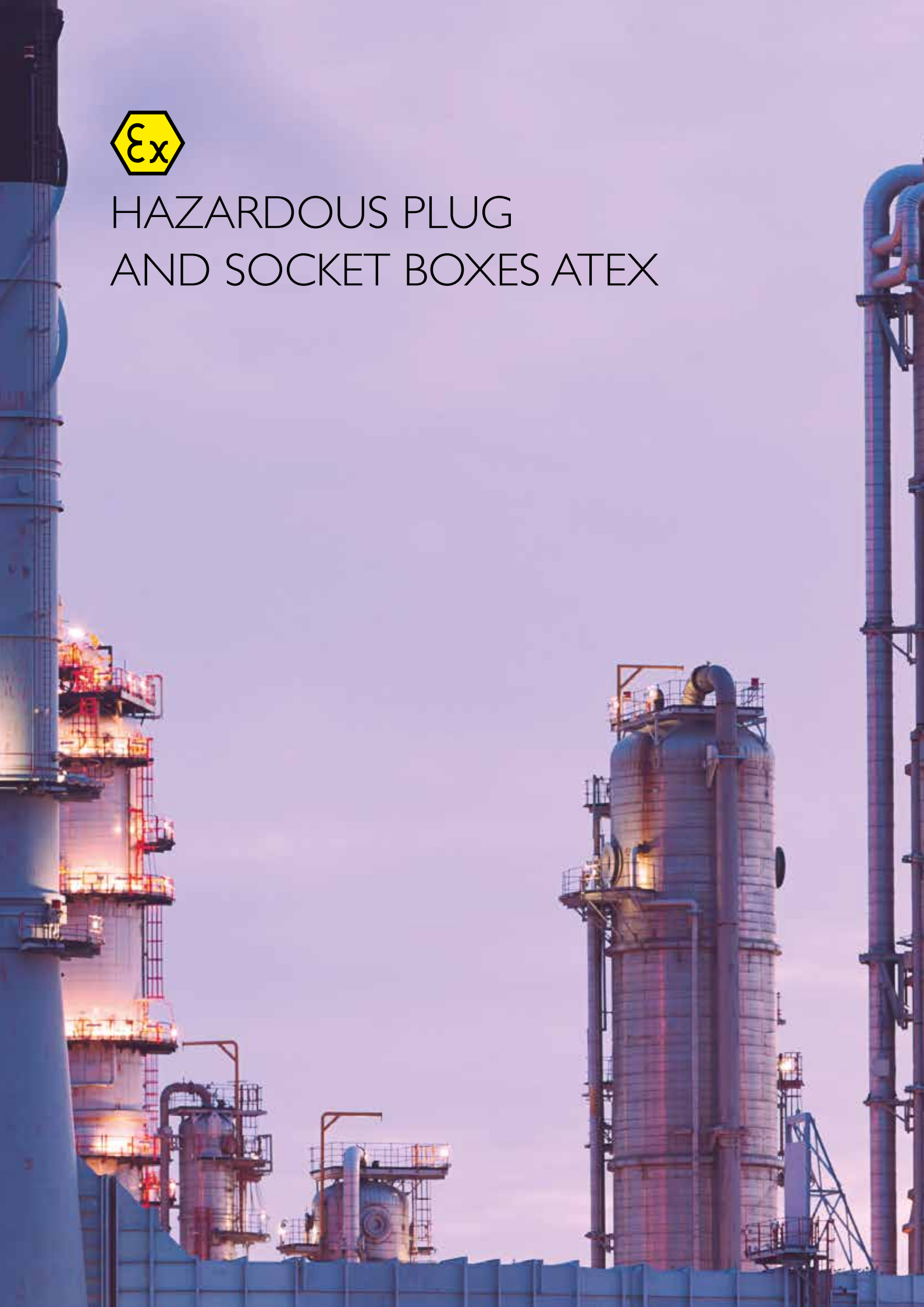
- ATEX & IECEx certificates or intrinsically safety.
- IP66 protection on the front, which is the one that will be located outside the enclosure.
- Made of stainless steel and designed to be placed in enclosures with "Ex e", "Ex p", "Ex n" and "Ex t" protection.
- Prepared for use in zones 0, I, and 2.
- Operating temp -40°C hasta los 60°C .
- Six push buttons which can be software interrogated. Each button function may be displayed on the screen. Buttons may be disabled.
- Display size 86.5x45 mm - 120x64 pixel.
- 11 standard screen formats.
- ATEX & IECEx certificates or intrinsically safety.
- Intrinsic safety parameters
 - R_{on} less than $5\Omega + 0.7V$
 - R_{off} greater than $1M\Omega$
 - $U_i = 28Vdc$
 - $I_i = 200mA$
 - $P_i = 0.85W$

ADVANTAGES

- High water and impact resistance, especially the version made of stainless steel.
- Very visual display with possibility to include backlighting.
- IECEx and ATEX certifications with intrinsic safety for use in explosive atmospheres.
- Specific design to be placed in any type of enclosure or panel.
- Wide applied temperature range.



HAZARDOUS PLUG AND SOCKET BOXES ATEX



**Zones I, 2, 21 and 22**

ATEX PLUG AND SOCKET BOXES **CONNEX SERIES**



Examples



Safe and Profitable Venues

Atex plug and socket boxes are designed specifically for cabinets in Atex zones I, 2, 21 y 22 and temperature class T6/T5 areas.

Atex plug and socket boxes incorporate the latest in features utmost reliability.

Fitting a socket or box Ex Delvalle ensures compliance with electrical safety conditions for users. It also promotes a long life cycle of the equipment.

➔ **FOR MORE INFORMATION CLICK HERE**



ATEX PLUG AND SOCKET BOXES **CONNEX SERIES**

ADVANTAGES

- Compliance with standards and directives.
- Automatic sealing.
- Plugs with integrated cutting capacity.
- Impact resistant and insensitive to thermal shocks.



CHARACTERISTICS

The end user security: plug + socket + switch

- A power supply with a built-in switch, all in one compact unit.
- Just press the button once to cut off the power and remove the risk of electric shock; then plugs automatically ejected and the unit is turned off.
- There is a on/off box also usable under short circuit conditions. In case of emergency, unskilled operators it can easily and safely break the power of the engine.
- Simple and visual aid to plug and connect: rigid box for connection / disconnection
- Each user can connect the plug thanks to a red visual brand. High performance and long life is assured. The connection is fast and safe.
- A safety shutter protects the user (IP4X / IPXXD).

Corrosion resistance

- The quality of materials, design and assembly of each component are the heart of our know-how and technology.
- They perform a specific function that optimizes the efficiency and lifespan of our outlets and facilities

High temperature

- Suitable for heavy industries such as metallurgy, the range of power connectors control signal and provides an excellent quality of connection, even with high temperature environments.
- Very robust with high corrosion resistance.

Mechanical lock

- There are optional locking systems to prevent accidental power to a machine during maintenance, and fit perfectly into their issuance procedures. Once the connector is disconnected safely you can mechanically lock the two longer physically separate parts.





ATEX PLUG AND SOCKET BOXES **CONNEX SERIES**



4 Socket box example



3 Socket box example



2 Socket box example



REFERENCES (1 AND 3 POLES + N + E)

REFERENCES	DIMENSIONS			SOCKET	CURRENT	VOLTAGE	POLES
	HEIGHT	WIDTH	DEPTH				
SO202015A201PNE	200	200	150	2	20A	220V	1P+N+E
SO202015C203PNE	200	200	150	2	20A	400V	3P+N+E
SO202015G203PNE	200	200	150	2	20A	480V	3P+N+E
SO202015A321PNE	200	200	150	2	32A	220V	1P+N+E
SO202015C323PNE	200	200	150	2	32A	400V	3P+N+E
SO202015G323PNE	200	200	150	2	32A	480V	3P+N+E
SO302015A201PNE	300	200	150	3	20A	220V	1P+N+E
SO302015C203PNE	300	200	150	3	20A	400V	3P+N+E
SO302015G203PNE	300	200	150	3	20A	480V	3P+N+E
SO302015A321PNE	300	200	150	3	32A	220V	1P+N+E
SO302015C323PNE	300	200	150	3	32A	400V	3P+N+E
SO302015G323PNE	300	200	150	3	32A	480V	3P+N+E
SO404017A201PNE	400	400	170	4	20A	220V	1P+N+E
SO404017C203PNE	400	400	170	4	20A	400V	3P+N+E
SO404017G203PNE	400	400	170	4	20A	480V	3P+N+E
SO404017A321PNE	400	400	170	4	32A	220V	1P+N+E
SO404017C323PNE	400	400	170	4	32A	400V	3P+N+E
SO404017G323PNE	400	400	170	4	32A	480V	3P+N+E
SO404017A631PNE	400	400	170	4	63A	220V	1P+N+E
SO404017C633PNE	400	400	170	4	63A	400V	3P+N+E
SO404017G633PNE	400	400	170	4	63A	480V	3P+N+E

You can perform intermediate sizes and interchangeable sockets, contact our sales department.

ATEX PLUG AND SOCKET BOXES **CONNEX SERIES**

REFERENCES (2 POLES)

REFERENCES	DIMENSIONS			SOCKET	CURRENT	VOLTAGE	POLES
	HEIGHT	WIDTH	DEPTH				
SO202015E202P	200	200	150	2	20A	24V	2P
SO202015E322P	200	200	150	2	32A	24V	2P
SO302015E202P	300	200	150	3	20A	24V	2P
SO302015E322P	300	200	150	3	32A	24V	2P
SO404017E202P	400	400	170	4	20A	24V	2P
SO404017E322P	400	400	170	4	32A	24V	2P
SO404017E632P	400	400	170	4	63A	24V	2P

We can provide intermediate sizes and interchangeable sockets, contact our sales department.

REFERENCES (3 POLES + E)

REFERENCES	DIMENSIONS			SOCKET	CURRENT	VOLTAGE	POLES
	HEIGHT	WIDTH	DEPTH				
SO202015A203PE	200	200	150	2	20A	220V	3P+E
SO202015C203PE	200	200	150	2	20A	400V	3P+E
SO202015G203PE	200	200	150	2	20A	480V	3P+E
SO202015A323PE	200	200	150	2	32A	220V	3P+E
SO202015C323PE	200	200	150	2	32A	400V	3P+E
SO202015G323PE	200	200	150	2	32A	480V	3P+E
SO302015A203PE	300	200	150	3	20A	220V	3P+E
SO302015C203PE	300	200	150	3	20A	400V	3P+E
SO302015G203PE	300	200	150	3	20A	480V	3P+E
SO302015A323PE	300	200	150	3	32A	220V	3P+E
SO302015C323PE	300	200	150	3	32A	400V	3P+E
SO302015G323PE	300	200	150	3	32A	480V	3P+E
SO404017A203PE	400	400	170	4	20A	220V	3P+E
SO404017C203PE	400	400	170	4	20A	400V	3P+E
SO404017G203PE	400	400	170	4	20A	480V	3P+E
SO404017A323PE	400	400	170	4	32A	220V	3P+E
SO404017C323PE	400	400	170	4	32A	400V	3P+E
SO404017G323PE	400	400	170	4	32A	480V	3P+E
SO404017A633PE	400	400	170	4	63A	220V	3P+E
SO404017C633PE	400	400	170	4	63A	400V	3P+E
SO404017G633PE	400	400	170	4	63A	480V	3P+E

You can perform intermediate sizes and interchangeable sockets, contact our sales department.



ATEX PLUG AND SOCKET BOXES **CONNEX SERIES**

CONECTORS EX



Example connector

The DXN disconnectors are designed for hazardous area. Comply with Atex 94/9/EC. They can be used in zones 1 and 2 (gas) and zones 21 and 22 (dust). They are certified according to IECEx standards.

FEATURES

Degree of protection: to IP67 depending on models.

- The sealed IP66 / IP67 is reinforced and automatically acts to connect the socket or by closing the lid of the enclosure. Allows the product to be used in wet or dusty environments.

Data for application in connection with Ex-areas:

- EC type examination certificate: II2 G D Ex de IIC Gb.
- Certificate Atex: Zones 1, 2, 21 and 22
- Temperature Rating for: Class T6 -25°C to 60°C.

APPLICATIONS

- Chemical, petrochemical.
- Pharmaceutical Industry.
- Food industry.
- Ex lighting networks, connecting Ex, extension cords.
- Lifeboats operating from offshore oil platforms.
- Mobile containers, cranes or laptops.
- Electric boats or hook-up trucks.

MODELS

CONECTORS			
MODEL	MAX.VOLTAGE	MAX. POWER	PROTECTION TYPE
DXN1	550	20A	II2 G D Ex e IIC GB
DXN3	750	32A	II2 G D Ex e IIC GB
DXN6	750	63A	II2 G D Ex e IIC GB
DX1	750	20A	II2 G D Ex e IIC
DX3	750	32A	II2 G D Ex e IIC
DX6	750	63A	II2 G D Ex e IIC
DX9	750	125A	II2 G D Ex e IIC
DX2	750	200A	II2 G D Ex e IIC
SPeX	1000	680A	II2 G D Ex e IIC

**Zonas 1, 2, 21 and 22**

PORTABLE SPLITTER BOX **ATEX & IECEX**

**High Reliability, Simple Use,
Guarantee and Safety**

Example



➔ **FOR MORE INFORMATION CLICK HERE**

The Ex splitter box is designed to get two or more sockets as outputs by one current input, allowing this way us to use more than two plugs from a large distance to devices.

The splitter box is a secure device, comfortable and useful, which is protected thanks to an Atex & IECEX enclosure specially designed, waterproof, antirust and made in stainless steel AISI 304L which guarantees an IP66 protection. This enclosure is CE marked to the Atex Directive for safe use in zones 1 and 2 potentially explosive gas and zones 21 and 22 dust atmospheres, making it ideal for power distribution within hazardous area confined spaces.

To make easier the movement of this enclosure it has a handle on the cover, to move it to the right place.





PORTABLE SPLITTER BOX **ATEX & IECEx**

Example



TECHNICAL FEATURES

It's equipped with a 5m long cable, which allows us to connect devices to the socket when they are remote.

The maximum rated tension is 550V and the rated current is 32A.

Its weight is 6 kg, and its design is compact and stable.

It can work between two temperature ranges, which give it a higher use capacity:

- $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
- $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$

Atex & IECEx enclosure:

- Finish with stainless steel AISI 304L.
- It has four legs to place it where it's necessary.
- It includes three cable glands in nickel plated brass with "Ex e" protection in M25 with IP68 protection.
- On the cover, the enclosure has a handle to move it.

OPTIONS

- There are three current options: 20A, 32A or 63A.
- The number of poles and the way they are connected can be selected between two and five, including neutral and ground cable.
- Ask us about:
- Cable longer
- Different features of this splitter box.
- More than two sockets to connect some plug (the enclosure's size would change).

ADVANTAGES

- The first one is the ability to power ancillary remote equipment.
- The maintenance work is easier with this splitter box because you can make your work far from the general sockets.
- Thanks to this splitter box, the possibilities of connecting devices to the enclosure are increased, because it's possible to place some sockets, being able to connect many devices at the same time.
- It's possible to cut off the current thanks to an emergency button on each connector.
- We can move it without problem because its weight is 6kg, enough to be light but strong at the same time.
- Possibility of manufacturing the Atex & IECEx enclosure in stainless steel AISI 316L.

PORTABLE SPLITTER BOX **ATEX & IECEx**

PROTECTION MODE

This equipment is certificated for use it in potentially explosive atmospheres in I, 2, 21 and 22 zones.

- Atex mark:
 - II2G Ex d e IICT6/T5 Gb
 - II2D Ex tb IIIC T85°C /T I00°C Db
- Certificate number: LOM14Atex2082
- IECEx mark:
 - Ex d e IICT6/T5 Gb
 - Ex tb IIIC T85°C/T I00°C Db
- Certificate number: EX/LOM/IECEx

REGULATION

Atex directive and regulation:

- Atex directive 2014/34/EU
- EN 60079-0:2012
- EN 60079-1:2007
- EN 60079-7:2015
- EN 60079-31:2010

IECEx regulation:

- IEC 60079-0:2011
- IEC 60079-1:2006

- IEC 60079-7:2015
- IEC 60079-31:2013

Enclosure regulation:

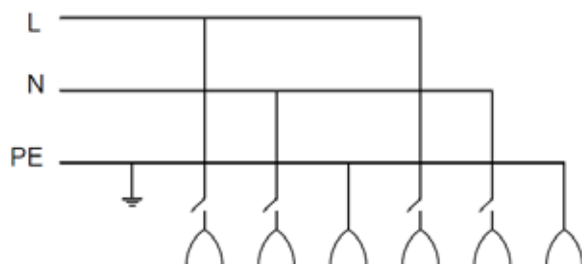
- IP regulation (IP65): IEC 60529
- IK regulation (IK10): IEC 62262

Low voltage directive and regulation:

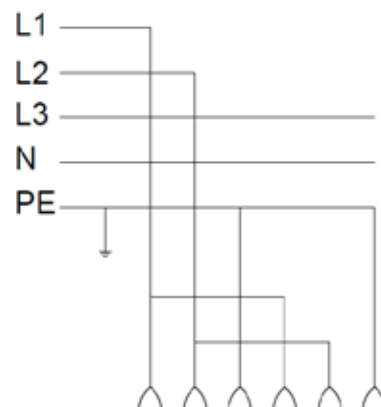
- Directive 2014/35/UE
- EN 61439-1:2011
- EN 61439-2:2011

ELECTRICAL DIAGRAM

The electrical diagram with three poles is:



The electrical diagram with 5 poles is:





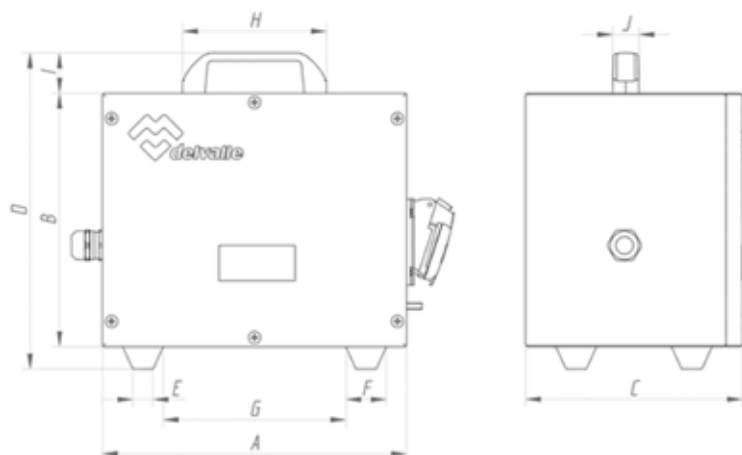
PORTABLE SPLITTER BOX **ATEX & IECEx**



BLUEPRINT AND DIMENSIONS

The dimensions are in mm, the enclosure size changes depending on the number of polos:

- 3P: 2P, 1P+N+T
- 5P: 3P+T, 3P+N+T



MOVABLE SWITCHBOARD (MS) DIMENSIONS (mm)

NUMBER OF POLES	A	B	C	D	E	F	G	H	I	J
3P	300	250	214	312	20	40	180	142	40	26
5P	380	300		362			200			



REFERENCES

MOVABLE SWITCHBOARD (MS) REFERENCES

POLES	CURRENT (A)	BASE NUMBER	BASE DESCRIPTION		BASE CURRENT	REFERENCE
			BASE 1	BASE 2		
3P+N+T	20	2	3P+T 400 Vac	P+N+T 22 Vac	20	MS2020-Ex
			3P+T 400 Vac	P+N+T 22 Vac		MS2021-Ex
		3	3P+T 400 Vac	(x2) P+N+T 22 Vac		MS2030-Ex
			(x3) P+N+T 220 Vac	-		MS2031-Ex
3P+N+T	32	2	3P+T 400 Vac	P+N+T 22 Vac	32-20	MS3220-Ex
			3P+T 400 Vac	-	20	MS3221-Ex
		3	3P+T 400 Vac	P+N+T 22 Vac		MS3230-Ex
			(x3) P+N+T 220 Vac	-		MS3231-Ex
			3P+T 400 Vac	(x2) P+N+T 22 Vac	32-20	MS3232-Ex
3P+N+T	63	3	(x3) P+N+T 220 Vac	-	32	MS6330-Ex



PRESSURIZED CONTROL PANEL ENCLOSURES





Zones I, 2, 21 and 22

PRESSURIZED EX P CABINETS **PEPPEX SERIES**

**Guaranteed Fully
Rust Proof**



Examples



Delvalle recommends pressurization of enclosures which cannot be protected by any other means, either because they are too large (which prevents them from being flameproof) or because they require too high a power to benefit from the enclosure's intrinsic safety.

This new range of enclosures more than meets the strictest tests that we could put them to: impact, over-pressure, corrosion, thermal impact, temperature rises, resistance to UV light, resistance to cold, heat and humidity.

We manufacture these pressurized enclosures to American Standards.



STAINLESS
ANTICORROSIVE



MECHANICAL
PARTS



PRESSURIZATION
EQUIPMENT



APPLICATIONS

- Monitors systems
- Control systems
- HMI
- Transformers
- VDF's
- Starter engine
- Control consoles

➔ **FOR MORE INFORMATION CLICK HERE**



PRESSURIZED EX P CABINETS **PEPPEX SERIES**

FEATURES

- Made of stainless steel AISI 304L or AISI 316L with a polished glossy surface finish.
- For use in zones 1, 2, 21 and 22 and to place Ex component terminals.
- Spacious interior that simplifies the connection operations.
- Guaranteed corrosion protection.
- Safe and resistant in hard and aggressive environments.
- Options: baseboards.
- Monobloc shape giving perfect sealing and impact resistance.
- “Ex p” safety degree: “Ex px”, “Ex py” and “Ex pz”.
- Mass inserted allowing external bolt connection.
- Quarter-turn double-bit locks and stainless steel hinges.

ADVANTAGES

- Variety of measurements.
- Supports non-Atex components inside.
- 2 years guarantee overall system pressurization.
- 10 years corrosion guarantee.
- 5 years guarantee mechanical parts.

OPTIONS

- Alarm system, pressure gauge, warning lights, mounting kits, cable glands Atex, light and button panels.
- Window, plinth, eyebolts, opening,...
- Multi cable transit frames (roxtec), one or several doors.
- Screw cover, baseboards, galvanized.
- Large capacity standers and wall cabinets.
- Temperature control system.





PRESSURIZED EX P CABINETS **PEPPEX SERIES**

Large capacity
pressured cabinet.
One door.

Large capacity pressured
cabinet with roof. One door.

Large capacity pressured
cabinet. One door.

Large capacity
pressured cabinet.
Two doors.



Wall pressured cabinet.
Two doors.

Large capacity pressured
cabinet. Two doors. Open
baseboard.

Wall pressured
cabinet. One door.



NORMS AND CERTIFICATES

- Atex 94/9/EC
- IEC 80079
- EN 60079-0
- EN 60079-2
- EN 61241-4
- NFPA 496
- EN 50 016
- American standards:
 - UL Nema 4x
 - UL & FM certified: Cl. I, Div. 2,
 - Group A-D. From zone 2 to safe zone.
- UL & FM certified: Cl. I, Div. 1, Group
- A-D. From zone 1 to zone 2
- Empty cabinet:
 - LOM I4Atex3027U
 - LOM I4Atex3026U
- Atex standards:
 - Ex pz IICT6 Gc
 - Ex py IICT6 Gb *
 - Ex px IICT6 Gb *
 - Ex pD IIICT6 Da IP6X *
 - Ex pD IIICT6 Dc IP6X
 - Ex pD IIICT6 Db IP6X *

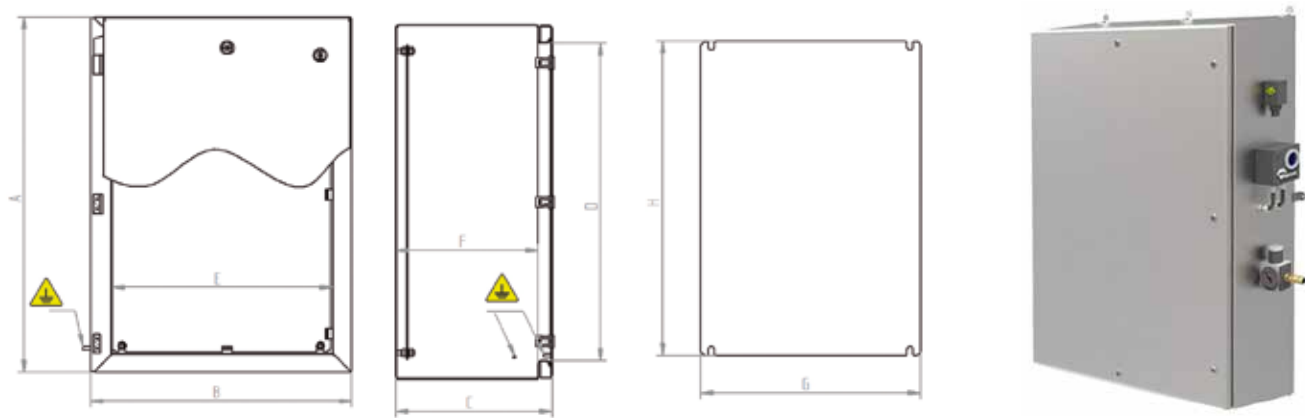


PRESSURIZED EX P CABINETS **PEPPEX** SERIES

WALL ENCLOSURE | ONE DOOR

PLAN

CUSTOM
MADE



REFERENCES

PEPPEX WALL ENCLOSURE ONE DOOR									
REFERENCES	HEIGHT - A -	WIDTH - B -	DEPTH - C -	USABLE INTERIOR HEIGHT - D -	USABLE INTERIOR WIDTH - E -	USABLE INTERIOR DEPTH - F -	MACHINABLE SIZE AREA		PLATE DIM. - GxH -
							DOOR	SIDE	
PEPPEX504020EX	500	400	200	426	321	171	313x234.5	470x147.5	420x320
PEPPEX605025EX	600	500	250	526	421	221	413x334.5	570x197.5	520x420
PEPPEX606030EX	600	600	300	526	521	271	413x434.5	570x247.5	520x520
PEPPEX705030EX	700	500	300	626	421	271	513x334.5	670x247.5	620x420
PEPPEX8040(x)EX	800	400	300 to 800	726	321	271 to 771	613x234.5	770x247.5 to 747.5	720x320
PEPPEX8060(x)EX	800	600	300 to 800	726	521	271 to 771	613x434.5	770x247.5 to 747.5	720x520
PEPPEX8080(x)EX	800	800	300 to 800	726	721	271 to 971	613x634.5	770x247.5 to 947.5	720x720
PEPPEX8010(x)EX	800	1000	300 to 800	726	921	271 to 971	613x834.5	770x247.5 to 947.5	720x920
PEPPEX1040(x)EX	1000	400	300 to 800	926	321	271 to 971	813x234.5	970x247.5 to 947.5	920x320
PEPPEX1060(x)EX	1000	600	300 to 800	926	521	271 to 971	813x434.5	970x247.5 to 947.5	920x520
PEPPEX1080(x)EX	1000	800	300 to 800	926	721	271 to 971	813x634.5	970x247.5 to 947.5	920x720
PEPPEX1010(x)EX	1000	1000	300 to 800	926	921	271 to 971	813x834.5	970x247.5 to 947.5	920x920
Option: Stainless steel 316L				Add "_6" to reference.					
Option: Galvanized steel RAL 7035				Add "G" to reference.					
Version: Normative UL				Add "UL" to reference.					

(x) = 20, 40-50-60-70-80-90-10 for a depth 200, 400, 500, 600, 700, 800, 900 or 1000mm.
We can manufacture up to 4mm thickness.



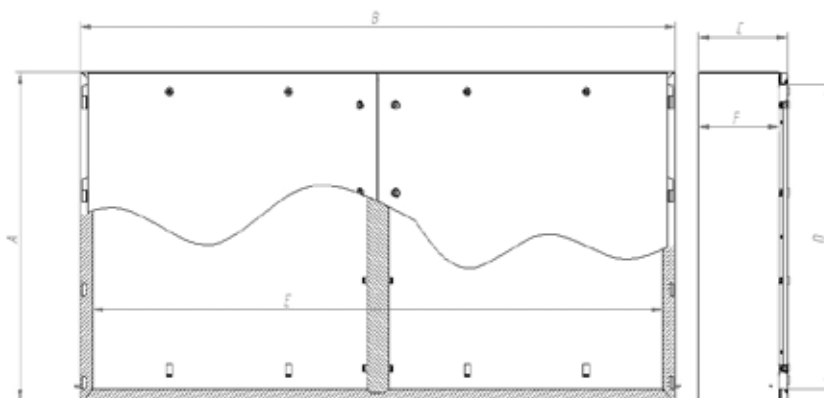
PRESSURIZED EX P CABINETS **PEPPEX SERIES**

WALL ENCLOSURE | TWO DOORS



PLAN

CUSTOM
MADE



REFERENCES

PEPPEX WALL ENCLOSURE | TWO DOORS

REFERENCES	HEIGHT - A -	WIDTH - B -	DEPTH - C -	USABLE INTERIOR HEIGHT - D -	USABLE INTERIOR WIDTH - E -	USABLE INTERIOR DEPTH - F -	MACHINABLE SIZE AREA		PLATE DIM. - GxH -
							DOOR	SIDE	
PEPPEX508020D	500	800	200	426	426	171	313x234.5	402.5x147.5	420x360
PEPPEX601025D	600	1000	250	526	526	221	413x334.5	502.5x197.5	520x460
PEPPEX601230D	600	1200	300	526	526	271	413x434.5	502.5x247.5	520x560
PEPPEX701230D	700	1000	300	626	626	271	513x334.5	602.5x247.5	620x460
PEPPEX8080(x)D	800	800	300 to 800	726	726	271 to 771	613x234.5	702.5x247.5 to 747.5	720x360
PEPPEX8012(x)D	800	1200	300 to 800	726	726	271 to 771	613x434.5	702.5x247.5 to 747.5	720x560
PEPPEX8016(x)D	800	1600	300 to 1000	726	726	271 to 971	613x634.5	702.5x247.5 to 947.5	720x760
PEPPEX8020(x)D	800	2000	300 to 1000	726	726	271 to 971	613x834.5	702.5x247.5 to 947.5	720x960
PEPPEX1080(x)D	1000	800	300 to 1000	926	926	271 to 971	813x234.5	902.5x247.5 to 947.5	920x360
PEPPEX1012(x)D	1000	1200	300 to 1000	926	926	271 to 971	813x434.5	902.5x247.5 to 947.5	920x560
PEPPEX1016(x)D	1000	1600	300 to 1000	926	926	271 to 971	813x634.5	902.5x247.5 to 947.5	920x760
PEPPEX1020(x)D	1000	2000	300 to 1000	926	926	271 to 971	813x834.5	902.5x247.5 to 947.5	920x960
Option: Stainless steel 316L				Add "_6" to reference.					
Option: Galvanized steel Ral 7035				Add "G" to reference.					
Version: Normative UL				Add "UL" to reference.					

(x) = 20, 40-50-60-70-80-90-10 for a depth 200, 400, 500, 600, 700, 800, 900 or 1000mm.
We can manufacture up to 4mm thickness.

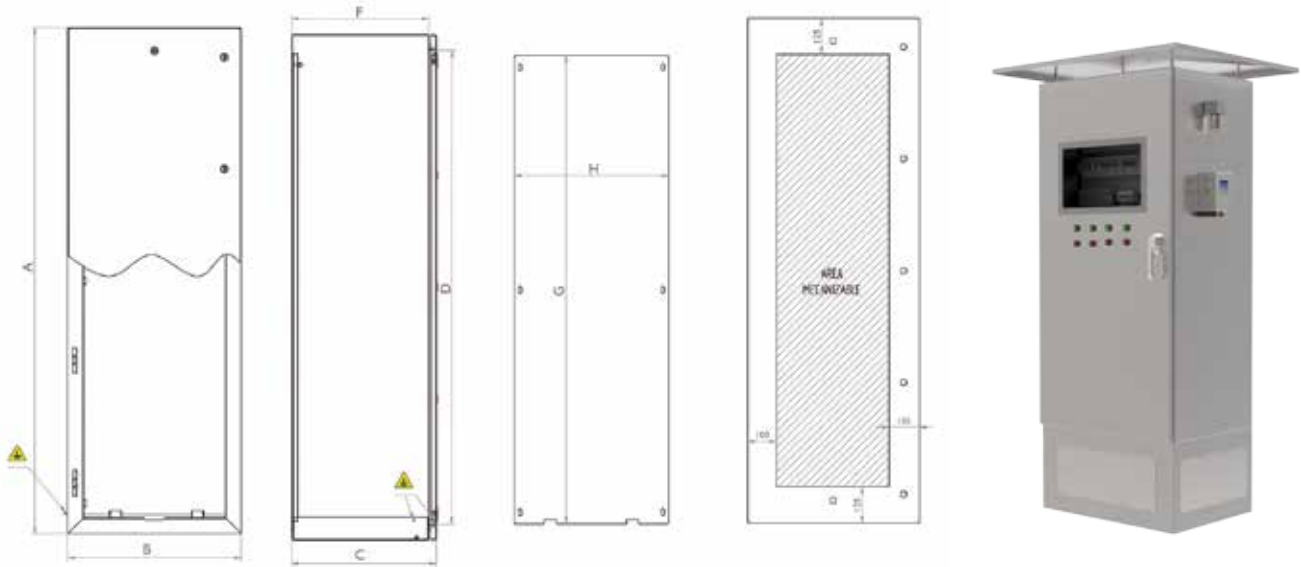


PRESSURIZED EX P CABINETS **PEPPEX** SERIES

LARGE SIZE PRESSURIZED CABINET | ONE DOOR

PLAN

CUSTOM
MADE



REFERENCES

PEPPEX HIGH-CAPACITY PRESSURIZED CABINET ONE DOOR									
REFERENCES	HEIGHT - A -	WIDTH - B -	DEPTH - C -	USABLE INTERIOR HEIGHT - D -	USABLE INTERIOR WIDTH - E -	USABLE INTERIOR DEPTH - F -	MACHINABLE SIZE AREA		PLATE DIM. - GxH -
							DOOR	SIDE	
PEPPEX1260(x)	1200	600	200 to 1000	1090	490	172 to 972	920x355	1170x157 to 957	1070x470
PEPPEX1280(x)	1200	800		1090	690	172 to 972	920x555	1170x157 to 957	1070x670
PEPPEX1210(x)	1200	1000		1090	890	172 to 972	920x755	1170x157 to 957	1070x870
PEPPEX1660(x)	1650	600		1540	490	172 to 972	1370x355	1620x157 to 957	1520x470
PEPPEX1680(x)	1650	800		1540	690	172 to 972	1370x555	1620x157 to 957	1520x670
PEPPEX1610(x)	1650	1000		1540	890	172 to 972	1370x755	1620x157 to 957	1520x870
PEPPEX1860(x)	1800	600		1690	490	172 to 972	1520x355	1770x157 to 957	1670x470
PEPPEX1880(x)	1800	800		1690	690	172 to 972	1520x555	1770x157 to 957	1670x670
PEPPEX1810(x)	1800	1000		1690	890	172 to 972	1520x755	1770x157 to 957	1670x870
PEPPEX2060(x)	2000	600		1890	490	172 to 972	1720x355	1970x157 to 957	1870x470
PEPPEX2080(x)	2000	800		1890	690	172 to 972	1720x555	1970x157 to 957	1870x670
PEPPEX2010(x)	2000	1000		1890	890	172 to 972	1720x755	1970x157 to 957	1870x870
Option: Stainless steel 316L				Add “_6” to reference.					
Option: Galvanized steel Ral 7035				Add “G” to reference.					
Version: Normative UL				Add “UL” to reference.					

(x) = 20, 40-50-60-70-80-90-10 for a depth 200, 400, 500, 600, 700, 800, 900 or 1000mm.
We can manufacture up to 4mm thickness.



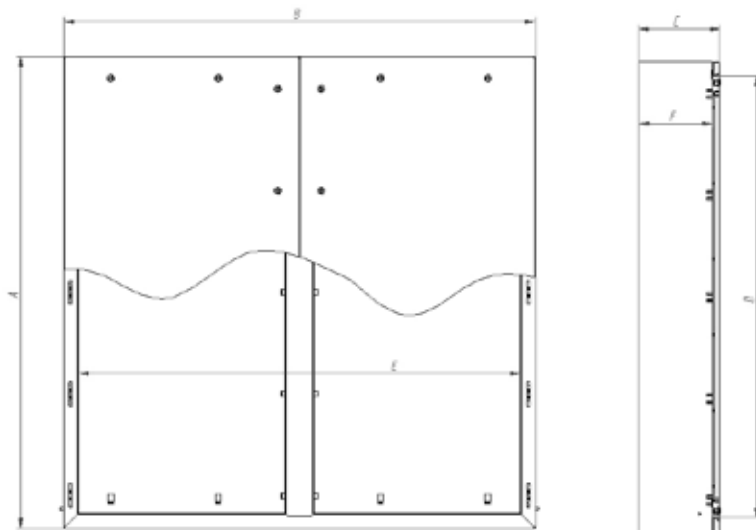
PRESSURIZED EX P CABINETS **PEPPEX SERIES**

LARGE SIZE PRESSURIZED CABINET | TWO DOORS



PLANE

CUSTOM
MADE



REFERENCES

PEPPEX HIGH-CAPACITY PRESSURIZED CABINET | TWO DOORS

REFERENCES	HEIGHT - A -	WIDTH - B -	DEPTH - C -	USABLE INTERIOR HEIGHT - D -	USABLE INTERIOR WIDTH - E -	USABLE INTERIOR DEPTH - F -	MACHINABLE SIZE AREA		PLATE DIM. - GxH -
							DOOR	SIDE	
PEPPEX1280(x)D	1200	800	200 a 1000	1090	690	172 to 972	840x155	1170x157 to 957	1070x735
PEPPEX1212(x)D	1200	1200		1090	1090	172 to 972	940x355	1170x157 to 957	1070x1135
PEPPEX1216(x)D	1200	1600		1090	1490	172 to 972	941x555	1170x157 to 957	1070x1535
PEPPEX1220(x)D	1200	2000		1090	1890	172 to 972	940x755	1170x157 to 957	1070x1935
PEPPEX1680(x)D	1650	800		1540	690	172 to 972	1390x155	1620x157 to 957	1520x735
PEPPEX1612(x)D	1650	1200		1540	1090	172 to 972	1390x355	1620x157 to 957	1520x1135
PEPPEX1616(x)D	1650	1600		1540	1490	172 to 972	1390x555	1620x157 to 957	1520x1535
PEPPEX1620(x)D	1650	2000		1540	1890	172 to 972	1390x755	1620x157 to 957	1520x1935
PEPPEX1880(x)D	1800	800		1690	690	172 to 972	1540x155	1770x157 to 957	1670x735
PEPPEX1812(x)D	1800	1200		1690	1090	172 to 972	1540x355	1770x157 to 957	1670x1135
PEPPEX1816(x)D	1800	1600		1690	1490	172 to 972	1540x555	1770x157 to 957	1670x1535
PEPPEX1820(x)D	1800	2000		1690	1890	172 to 972	1540x755	1770x157 to 957	1670x1935
PEPPEX2080(x)D	2000	800		1890	690	172 to 972	1750x155	1970x157 to 957	1870x735
PEPPEX2012(x)D	2000	1200		1890	1090	172 to 972	1740x355	1970x157 to 957	1870x1135
PEPPEX2016(x)D	2000	1600		1890	1490	172 to 972	1740x555	1970x157 to 957	1870x1535
PEPPEX2020(x)D	2000	2000		1890	1890	172 to 972	1740x755	1970x157 to 957	1870x1935
Option: Stainless steel 316L				Add “_6” to reference.					
Option: Galvanized steel Ral 7035				Add “G” to reference.					
Version: Normative UL				Add “UL” to reference.					

(x) = 20, 40-50-60-70-80-90-10 for a depth 200, 400, 500, 600, 700, 800, 900 or 1000mm.
We can manufacture up to 4mm thickness.



PRESSURIZED EX P CABINETS **PEPPEX SERIES**

FILTER SYSTEM AND CONTROL UNITS

FILTER SYSTEM AND PRESSURE REGULATOR

REFERENCE
FR100 PEPPEX

Filter system and pressure regulator for the pressurization system Peppex, solves future problems of malfunction or dirt inside the control enclosure. It is the best option to place in the pressurized enclosure.



CONTROL UNITS

Depending on the Atex area and ruling needed we have different ranges of control units.



- Model MVP050.PZ
- Pressurizing equipment
- Control Unit

REFERENCE
MVP050.PZ



- Model MVP060.PZ
100V - 250V.
- Zones I and 2I.

REFERENCE
MVP060PZVAC



- Modelo MVP055.PZ de 230V.
- Other voltages available: 24V and 120V.
- Zones 2 and 22.

REFERENCE
MVP055PZVAC

REFERENCE VALVE
EV055EX230



HAZARDOUS LOCATION AIR CONDITIONERS





Zone 2

ATEX AIR CONDITIONERS **AIRATEX 2 SERIES** IP66

**Compact Design,
Certificate for Zone 2**



Examples



Airatem 2, are compact air conditioners certified ATEX & IECEx Zone 2, quick and reliable assembly, with minimal maintenance and optimal design, for use when it is essential to cool electrical panels in ATEX and hazardous areas. Available in 4000, 5000, 6000, 8000, 10000 and 12000 BTU models.

FEATURES

- Compact size (726 x 287mm).
- Warm enclosure air is drawn in near the top of the unit, while conditioned air is discharged near the bottom.
- Three position condenser air flow with the option to direct hot discharge air in different directions.
- Standard Digital Controller with programmable temperatures and alarm.
- Controller can be installed on either front or rear of the unit (inside or outside at the enclosure).
- Can be used with or without a purge system.
- ATEX / IECEx / UL Certified.
- Outdoor model operating temperature range from -40°C to +60°C.
- Environment friendly refrigerant.
- Efficient, quiet, and long lasting rotary compressor.
- Powder coated finish on durable 16 gauge welded steel.
- Easy pull out filter cleanable, reusable electrostatic 10 micron filter.
- Minimal visible fasteners.
- IP66.

➔ **FOR MORE INFORMATION CLICK HERE**



ATEX AIR CONDITIONERS **AIRATEX 2 SERIES** IP66

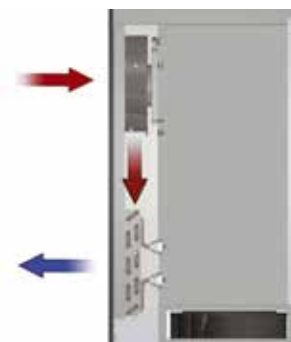


OPTIONS

- Customised finish.
- 304 or 316 stainless steel.
- Low ambient (LA).
- Alarm output (XO3).
- 4 Micron condenser filter.
- Total corrosive e-coating (CP3).
- 120V 60Hz.
- 220 / 230V 50 / 60Hz.
- 400V 50 / 60Hz.
- 480V 50 / 60Hz.
- Three position condenser air flow with the option to direct hot discharged air in different directions.
- Built in purge fitting (this 1/4"[6.35MM] OD push to connect fitting is for convenience only and is not required as a protection method. All components are non-ignition source components and do not require purge protection from any source).

AIR FLOW

Warm enclosure air is drawn in near the top of the unit, while conditioned air is discharged near the bottom.

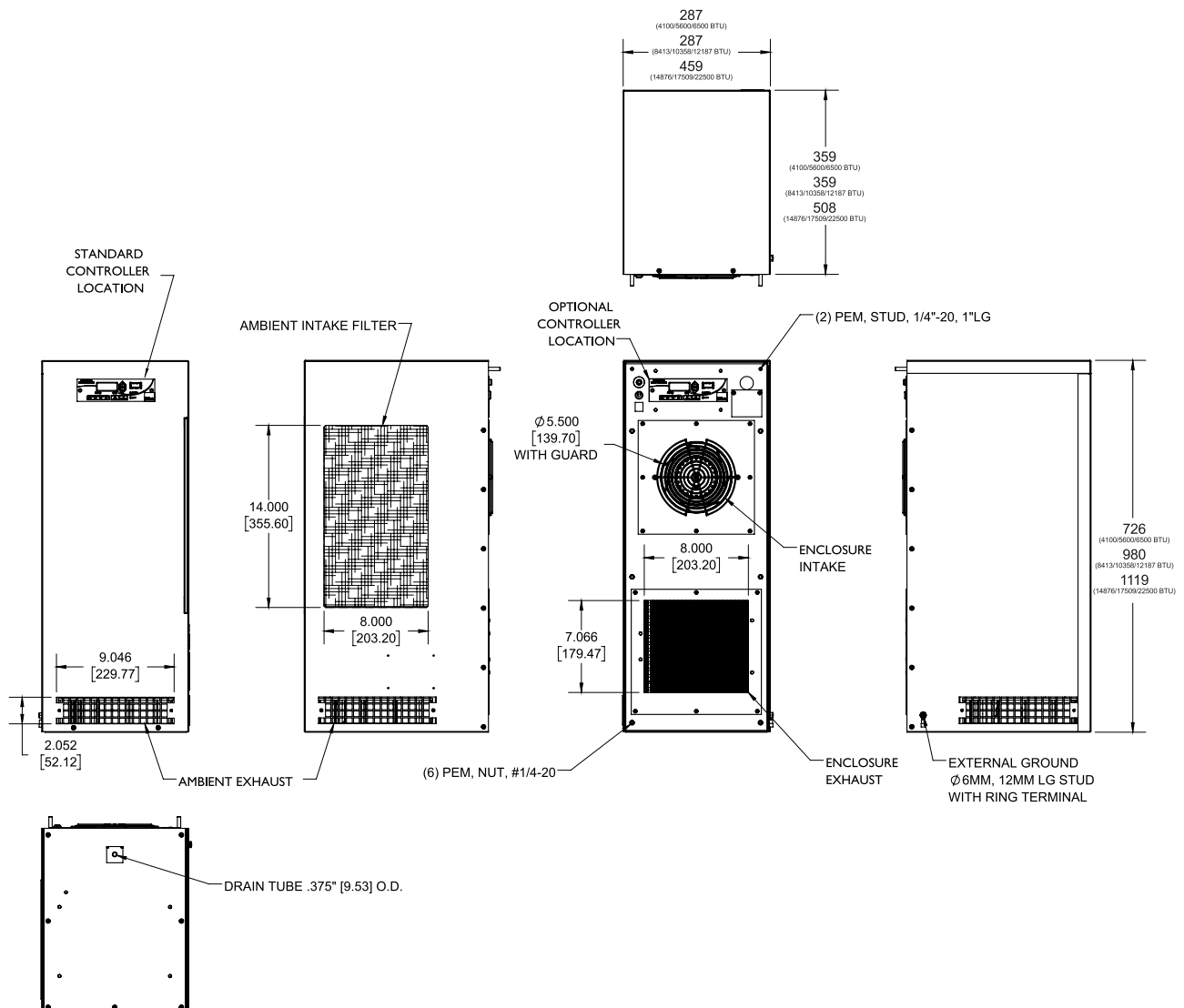


Three position condenser air flow with the option to direct hot discharge air in different directions.

Repositionable condenser air flow diverter plate.

ATEX AIR CONDITIONERS **AIRATEX 2 SERIES** IP66

PLAN





ATEX AIR CONDITIONERS **AIRATEX 2 SERIES** IP66



REFERENCES

Reference configured. Example: MVOUT I202A5EX2 (painted steel air conditioning 1202 W with 220 V and 50 Hz)

1	+	2	+	3	+	4	+	5
Model		Watts		Volts		Herzios		Code
MVOUT: painted steel MVOUTX: 304 stainless steel MVOUTX6: 316 stainless steel				A: 220 - 230V ac B: 120V ac C: 400V ac D: 480V ac		5: 50 Hz 6: 60 Hz		EX2
MVOUT		1202		A		5		EX2

REFERENCES ATEX AIR CONDITIONERS - AIRATEX 2 SERIES

MODEL	BTU	WATTS	VOLTS	HERCIOS	MAX.AMP	MIN. - MAX.T °C	WEIGHT (Kg)
MVOUT/X/X6	4100	1202	120	60	8.28	-40 °C + 60 °C	44.2
MVOUT/X/X6	4100	1202	220	50	3.73	-40 °C + 60 °C	44.2
MVOUT/X/X6	4100	1202	230	60	4.30	-40 °C + 60 °C	44.2
MVOUT/X/X6	4100	1202	240	50	3.50	-40 °C + 60 °C	44.2
MVOUT/X/X6	4100	1202	240	60	4.13	-40 °C + 60 °C	44.2
MVOUT/X/X6	4100	1202	400	50	2.22	-40 °C + 60 °C	53.3
MVOUT/X/X6	4100	1202	400	60	2.47	-40 °C + 60 °C	53.3
MVOUT/X/X6	4100	1202	440	50	2.02	-40 °C + 60 °C	53.3
MVOUT/X/X6	4100	1202	440	60	2.25	-40 °C + 60 °C	53.3
MVOUT/X/X6	4100	1202	480	50	2.00	-40 °C + 60 °C	53.3
MVOUT/X/X6	4100	1202	480	60	2.08	-40 °C + 60 °C	53.3
MVOUT/X/X6	5600	1641	120	60	8.29	-40 °C + 60 °C	44.2
MVOUT/X/X6	5600	1641	220	50	3.73	-40 °C + 60 °C	44.2
MVOUT/X/X6	5600	1641	230	60	4.31	-40 °C + 60 °C	44.2
MVOUT/X/X6	5600	1641	240	50	3.50	-40 °C + 60 °C	44.2
MVOUT/X/X6	5600	1641	240	60	4.13	-40 °C + 60 °C	44.2
MVOUT/X/X6	5600	1641	400	50	2.29	-40 °C + 60 °C	53.3
MVOUT/X/X6	5600	1641	400	60	2.49	-40 °C + 60 °C	53.3
MVOUT/X/X6	5600	1641	440	50	2.03	-40 °C + 60 °C	53.3
MVOUT/X/X6	5600	1641	440	60	2.25	-40 °C + 60 °C	53.3
MVOUT/X/X6	5600	1641	480	50	2.00	-40 °C + 60 °C	53.3
MVOUT/X/X6	5600	1641	480	60	2.09	-40 °C + 60 °C	53.3
MVOUT/X/X6	6500	1905	120	60	8.31	-40 °C + 60 °C	44.2
MVOUT/X/X6	6500	1905	220	50	3.82	-40 °C + 60 °C	44.2
MVOUT/X/X6	6500	1905	230	60	4.32	-40 °C + 60 °C	44.2
MVOUT/X/X6	6500	1905	240	50	3.52	-40 °C + 60 °C	44.2
MVOUT/X/X6	6500	1905	240	60	4.11	-40 °C + 60 °C	44.2
MVOUT/X/X6	6500	1905	400	50	2.52	-40 °C + 60 °C	53.3
MVOUT/X/X6	6500	1905	400	60	2.52	-40 °C + 60 °C	53.3
MVOUT/X/X6	6500	1905	440	50	2.03	-40 °C + 60 °C	53.3
MVOUT/X/X6	6500	1905	440	60	2.26	-40 °C + 60 °C	53.3
MVOUT/X/X6	6500	1905	480	50	2.02	-40 °C + 60 °C	53.3
MVOUT/X/X6	6500	1905	480	60	2.11	-40 °C + 60 °C	53.3
MVOUT/X/X6	8413	2466	120	60	15.10	-40 °C + 60 °C	57.2
MVOUT/X/X6	8413	2466	220	50	6.50	-40 °C + 60 °C	57.2
MVOUT/X/X6	8413	2466	230	60	7.70	-40 °C + 60 °C	57.2
MVOUT/X/X6	8413	2466	240	50	6.96	-40 °C + 60 °C	57.2
MVOUT/X/X6	8413	2466	240	60	7.17	-40 °C + 60 °C	57.2
MVOUT/X/X6	8413	2466	400	50	4.20	-40 °C + 60 °C	68.0
MVOUT/X/X6	8413	2466	400	60	4.21	-40 °C + 60 °C	68.0
MVOUT/X/X6	8413	2466	440	50	3.74	-40 °C + 60 °C	68.0
MVOUT/X/X6	8413	2466	440	60	3.98	-40 °C + 60 °C	68.0
MVOUT/X/X6	8413	2466	480	50	3.80	-40 °C + 60 °C	68.0
MVOUT/X/X6	8413	2466	480	60	3.60	-40 °C + 60 °C	68.0

ATEX AIR CONDITIONERS **AIRATEX 2 SERIES** IP66

REFERENCES ATEX AIR CONDITIONERS - AIRATEX 2 SERIES

MODEL	BTU	WATTS	VOLTS	HERCIOS	MAX. AMP	MIN. - MAX. T °C	WEIGHT (Kg)
MVOUT/X/X6	10358	3036	120	60	19.80	-40 °C + 60 °C	57.2
MVOUT/X/X6	10358	3036	220	50	10.00	-40 °C + 60 °C	57.2
MVOUT/X/X6	10358	3036	230	60	10.10	-40 °C + 60 °C	57.2
MVOUT/X/X6	10358	3036	240	50	9.26	-40 °C + 60 °C	57.2
MVOUT/X/X6	10358	3036	240	60	9.46	-40 °C + 60 °C	57.2
MVOUT/X/X6	10358	3036	400	50	5.10	-40 °C + 60 °C	68.0
MVOUT/X/X6	10358	3036	400	60	5.09	-40 °C + 60 °C	68.0
MVOUT/X/X6	10358	3036	440	50	5.04	-40 °C + 60 °C	68.0
MVOUT/X/X6	10358	3036	440	60	5.20	-40 °C + 60 °C	68.0
MVOUT/X/X6	10358	3036	480	50	5.06	-40 °C + 60 °C	68.0
MVOUT/X/X6	10358	3036	480	60	5.05	-40 °C + 60 °C	68.0
MVOUT/X/X6	12187	3572	120	60	20.10	-40 °C + 60 °C	57.2
MVOUT/X/X6	12187	3572	220	50	10.30	-40 °C + 60 °C	57.2
MVOUT/X/X6	12187	3572	230	60	10.30	-40 °C + 60 °C	57.2
MVOUT/X/X6	12187	3572	240	50	9.42	-40 °C + 60 °C	57.2
MVOUT/X/X6	12187	3572	240	60	9.70	-40 °C + 60 °C	57.2
MVOUT/X/X6	12187	3572	400	50	5.22	-40 °C + 60 °C	68.0
MVOUT/X/X6	12187	3572	400	60	5.21	-40 °C + 60 °C	68.0
MVOUT/X/X6	12187	3572	440	50	5.10	-40 °C + 60 °C	68.0
MVOUT/X/X6	12187	3572	440	60	5.32	-40 °C + 60 °C	68.0
MVOUT/X/X6	12187	3572	480	50	5.10	-40 °C + 60 °C	68.0
MVOUT/X/X6	12187	3572	480	60	5.09	-40 °C + 60 °C	68.0
MVOUT/X/X6	14876	4360	220	50	12.50	-40 °C + 60 °C	101
MVOUT/X/X6	14876	4360	230	60	12.10	-40 °C + 60 °C	101
MVOUT/X/X6	14876	4360	240	50	11.44	-40 °C + 60 °C	101
MVOUT/X/X6	14876	4360	240	60	11.68	-40 °C + 60 °C	101
MVOUT/X/X6	14876	4360	400	50	7.09	-40 °C + 60 °C	125
MVOUT/X/X6	14876	4360	400	60	7.11	-40 °C + 60 °C	125
MVOUT/X/X6	14876	4360	440	50	7.59	-40 °C + 60 °C	125
MVOUT/X/X6	14876	4360	440	60	7.01	-40 °C + 60 °C	125
MVOUT/X/X6	14876	4360	480	50	6.76	-40 °C + 60 °C	125
MVOUT/X/X6	14876	4360	480	60	6.66	-40 °C + 60 °C	125
MVOUT/X/X6	17509	5131	220	50	13.76	-40 °C + 60 °C	101
MVOUT/X/X6	17509	5131	230	60	13.21	-40 °C + 60 °C	101
MVOUT/X/X6	17509	5131	240	50	12.65	-40 °C + 60 °C	101
MVOUT/X/X6	17509	5131	240	60	12.80	-40 °C + 60 °C	101
MVOUT/X/X6	17509	5131	400	50	6.81	-40 °C + 60 °C	125
MVOUT/X/X6	17509	5131	400	60	6.92	-40 °C + 60 °C	125
MVOUT/X/X6	17509	5131	440	50	7.13	-40 °C + 60 °C	125
MVOUT/X/X6	17509	5131	440	60	7.15	-40 °C + 60 °C	125
MVOUT/X/X6	17509	5131	480	50	6.74	-40 °C + 60 °C	125
MVOUT/X/X6	17509	5131	480	60	6.43	-40 °C + 60 °C	125
MVOUT/X/X6	22500	6594	220	50	16.96	-40 °C + 60 °C	101
MVOUT/X/X6	22500	6594	230	60	16.40	-40 °C + 60 °C	101
MVOUT/X/X6	22500	6594	240	50	15.27	-40 °C + 60 °C	101
MVOUT/X/X6	22500	6594	240	60	15.35	-40 °C + 60 °C	101
MVOUT/X/X6	22500	6594	400	50	8.70	-40 °C + 60 °C	125
MVOUT/X/X6	22500	6594	400	60	8.67	-40 °C + 60 °C	125
MVOUT/X/X6	22500	6594	440	50	9.12	-40 °C + 60 °C	125
MVOUT/X/X6	22500	6594	440	60	8.88	-40 °C + 60 °C	125
MVOUT/X/X6	22500	6594	480	50	8.64	-40 °C + 60 °C	125
MVOUT/X/X6	22500	6594	480	60	8.36	-40 °C + 60 °C	125



Zone I

ATEX AIR CONDITIONERS **AIRATEX I SERIES** IP66

**We Offer
you High Reliability ATEX**



Example

➔ **FOR MORE INFORMATION CLICK HERE**

OPTIONS

- Custom finishes.
- 304 or 316 stainless steel construction.
- Low Ambient (LA)
- Easy pull-out, cleanable, reusable electrostatic 4-micron filter.
- CP3 Total Corrosive E-Coating (CP3).
- 220V 50Hz, 60Hz.
- 230V 50Hz, 60Hz.
- 240V 50Hz, 60Hz.

Airatex I, are compact air conditioners certified ATEX & IECEx Zone I, quick and reliable assembly, with minimal maintenance and optimal design, for use when it is essential to cool electrical panels in ATEX and hazardous areas.

Available in 4100, 5600, 6500, 8413, 10358, 12187, 14876, 17509 and 22500 BTU models.

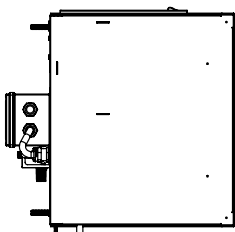
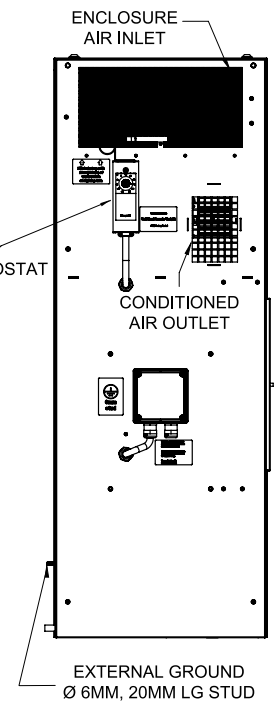
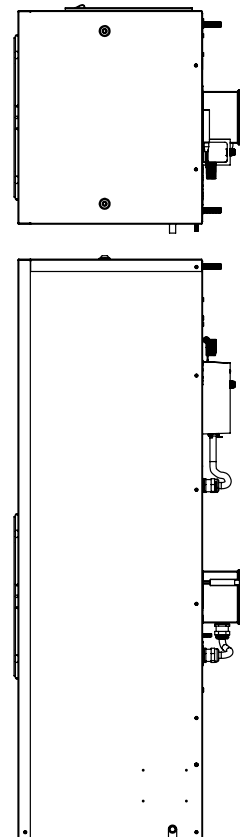
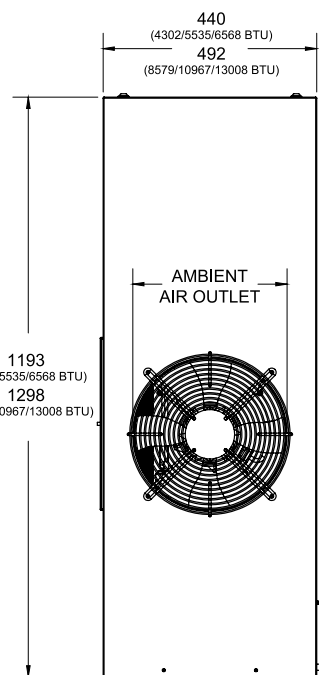
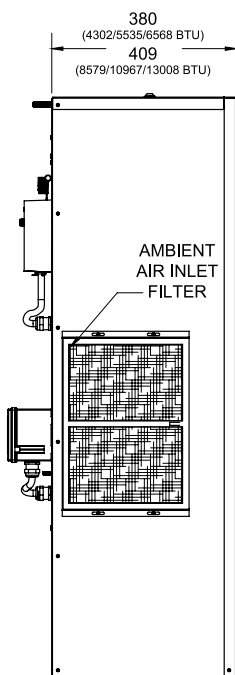
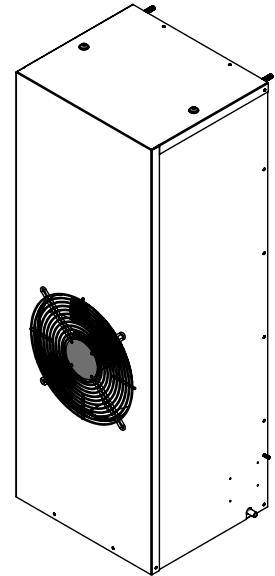
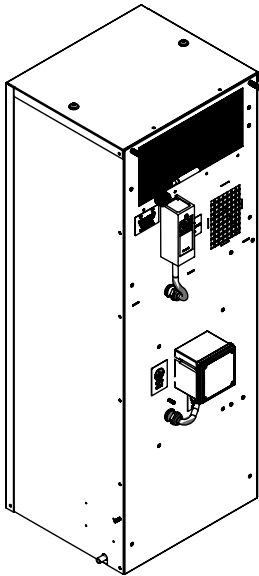
FEATURES

- Compact size.
- Closed-loop cooling to protect your application and increase efficiency.
- Flame-proof enclosure with integrated fire path to protect arcing and sparking components.
- Environment friendly HFC refrigerant.
- Maintains a purged environment if your application is suited with one
- Does not require purge protection.
- Easy installation.
- Indoor and outdoor use.
- 304 or 316 stainless steel welded construction.
- Efficient, quiet, and long-lasting rotary compressor.
- Easy pull-out, cleanable, reusable electrostatic 10-micron filter.
- Engineered for optimal engineering efficiency in enclosure cooling
- Maintains IP66 integrity.
- ATEX / IECEx / UL / RoHS certified.



ATEX AIR CONDITIONERS **AIRATEX I SERIES** IP66

PLAN





ATEX AIR CONDITIONERS **AIRATEX I SERIES** IP66



REFERENCES

Reference configured. Example: MVOUTX1262A5EXI (304 stainless steel air conditioning 1262 W with 220V and 50 Hz).

1	+	2	+	3	+	4	+	5
Model		Watts		Volts		Herzios		Code
MVOUTX: 304 stainless steel MVOUTX6: 316 stainless steel				A: 220 - 230 - 240 V ac		5: 50 Hz 6: 60 Hz		EXI
MVOUT		1202		A		5		EXI

REFERENCES ATEX AIR CONDITIONERS - AIRATEX I SERIES

MODEL	BTU	WATTS	VOLTS	HERCIOS	MAX.AMP	MIN. - MAX.T °C	WEIGHT (Kg)
MVOUTX/X6	4302	1262	220	50	7.44	-40 °C + 60 °C	102
MVOUTX/X6	4302	1262	220	60	7.44	-40 °C + 60 °C	102
MVOUTX/X6	4302	1262	230	50	8.80	-40 °C + 60 °C	102
MVOUTX/X6	4302	1262	230	60	8.80	-40 °C + 60 °C	102
MVOUTX/X6	4302	1262	240	50	7.35	-40 °C + 60 °C	102
MVOUTX/X6	4302	1262	240	60	8.64	-40 °C + 60 °C	102
MVOUTX/X6	5535	1623	220	50	7.74	-40 °C + 60 °C	102
MVOUTX/X6	5535	1623	220	60	7.74	-40 °C + 60 °C	102
MVOUTX/X6	5535	1623	230	50	9.53	-40 °C + 60 °C	102
MVOUTX/X6	5535	1623	230	60	9.53	-40 °C + 60 °C	102
MVOUTX/X6	5535	1623	240	50	7.59	-40 °C + 60 °C	102
MVOUTX/X6	5535	1623	240	60	9.40	-40 °C + 60 °C	102
MVOUTX/X6	6568	1926	220	50	8.69	-40 °C + 60 °C	102
MVOUTX/X6	6568	1926	220	60	8.69	-40 °C + 60 °C	102
MVOUTX/X6	6568	1926	230	50	10.47	-40 °C + 60 °C	102
MVOUTX/X6	6568	1926	230	60	10.47	-40 °C + 60 °C	102
MVOUTX/X6	6568	1926	240	50	8.57	-40 °C + 60 °C	102
MVOUTX/X6	6568	1926	240	60	10.31	-40 °C + 60 °C	102
MVOUTX/X6	8579	2516	220	50	10.69	-40 °C + 60 °C	114
MVOUTX/X6	8579	2516	220	60	10.69	-40 °C + 60 °C	114
MVOUTX/X6	8579	2516	230	50	11.33	-40 °C + 60 °C	114
MVOUTX/X6	8579	2516	230	60	11.33	-40 °C + 60 °C	114
MVOUTX/X6	8579	2516	240	50	10.59	-40 °C + 60 °C	114
MVOUTX/X6	8579	2516	240	60	11.19	-40 °C + 60 °C	114
MVOUTX/X6	10967	3216	220	50	10.89	-40 °C + 60 °C	114
MVOUTX/X6	10967	3216	220	60	10.89	-40 °C + 60 °C	114
MVOUTX/X6	10967	3216	230	50	11.64	-40 °C + 60 °C	114
MVOUTX/X6	10967	3216	230	60	11.64	-40 °C + 60 °C	114
MVOUTX/X6	10967	3216	240	50	10.78	-40 °C + 60 °C	114
MVOUTX/X6	10967	3216	240	60	11.48	-40 °C + 60 °C	114
MVOUTX/X6	13008	3815	220	50	11.20	-40 °C + 60 °C	114
MVOUTX/X6	13008	3815	220	60	11.20	-40 °C + 60 °C	114
MVOUTX/X6	13008	3815	230	50	12.07	-40 °C + 60 °C	114
MVOUTX/X6	13008	3815	230	60	12.07	-40 °C + 60 °C	114
MVOUTX/X6	13008	3815	240	50	11.09	-40 °C + 60 °C	114
MVOUTX/X6	13008	3815	240	60	11.89	-40 °C + 60 °C	114



AMERICAN REGULATED REFRIGERATORS UL

Hazardous Locations:

Class I División 2

We have a wide range of refrigerators complying with American standards for UL hazardous locations:

- Third party certified by UL, ETL, and CSA for Class I Division 2 areas.
- Designed for purged and nonpurged enclosed systems.
- Available in 2,000 to 27,000 BTU Capacity.
- Designed for hazardous locations.



Example



**Zones 2 and 22**

REFRIGERATORS ATEX **VORTEX SERIES** IP66

The Atex Cooling System Vortex Need a Compressed Air Source Always Ready to Respond



Example Vortex Luxorex system



Example Tribex Vortex system

The most economic Atex system to cool electrical panels Atex & IECEx.

Vortex Enclosure Coolers are designed specifically for purged electrical enclosures in Atex zones 2 and 22 and temperature class T4 areas.

The Atex Vortex incorporates the most up-to-date features into Vortex's line of highly reliable, cost effective enclosure coolers.



ADVANTAGES

- Can be mounted on top or one side of the enclosure.
- Small to fits on any enclosure.
- Thermostatically controlled using a mechanical thermostat.
- Requires no wiring, can be installed (easily) in minutes.
- No ambient, dirty, or humid air enters the enclosure.
- Designed to cool environments quietly.
- Significantly lower costs, compared to Atex Certified air conditioners.
- Contains no moving parts, resulting in very little required maintenance.
- Reduced energy use.
- 5 minute installation.
- Reduced noise levels.
- 62 dBA operation, 78% quieter than typical vortex coolers.

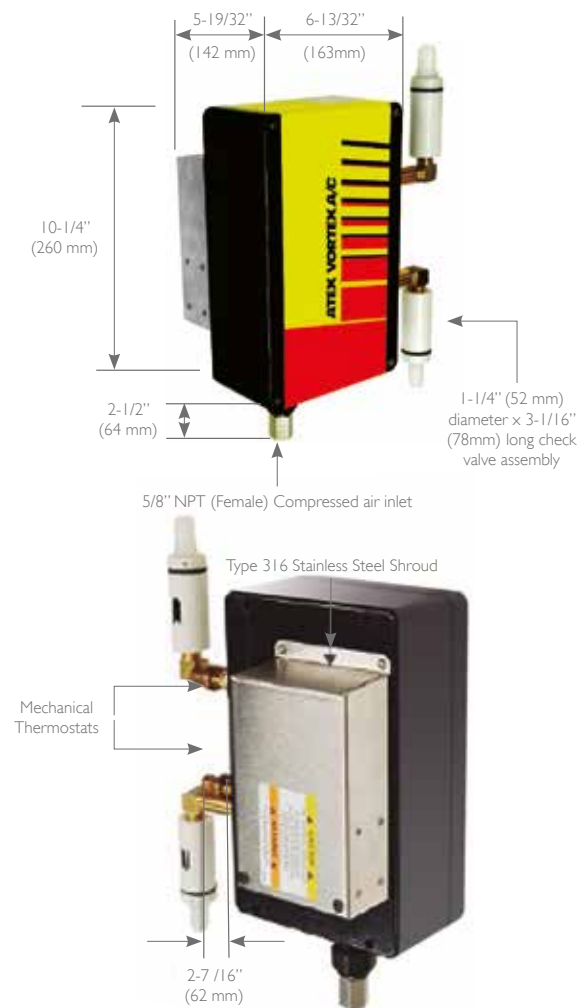
➔ **FOR MORE INFORMATION CLICK HERE**



REFRIGERATORS ATEX **VORTEX SERIES** IP66

TECNICAL DATA

- Ambient conditions
 - Ambient temperature: -20°C to 40°C.
 - Maintaining the temperature between: 26°C (80°F) and 35°C (95°F) using a mechanical thermostat.
 - Inlet air max temperature: 49°C.
- Data for applications in Connection with Ex-areas
 - EC type examination certificate EC:
 - EX II 3 GD T4.
 - Atex certified for: Zones 2 and 22.
 - Temperature classification: T4 Class.
- Directive conformity
 - Directive 94/9/EC: ENI 3463-1:2009.
- Internal approvals
 - UL approval.
 - cULus.
 - Class I, Division 2, groups A, B, C and D
 - Class II, Division 2, groups F and G; Clase III.



The Atex cooling systems Vortex need a compressed air source always ready to respond.

REFERENCES

REFRIGERADOR ATEX VORTEX				
REFERENCES	COOLING CAPACITY		INCLUDE FILTER	THERMOSTAT
	BTU / HR	WATTS		
VORT900EXF	900	264	Yes	Mechanic
VORT900EX	900	264	No	Mechanic
VORT1500EXF	1500	440	Yes	Mechanic
VORT1500EX	1500	440	No	Mechanic
VORT2500EXF	2500	733	Yes	Mechanic
VORT2500EX	2500	733	No	Mechanic
VORT5000EXF	5000	1465	Yes	Mechanic
VORT5000EX	5000	1465	No	Mechanic

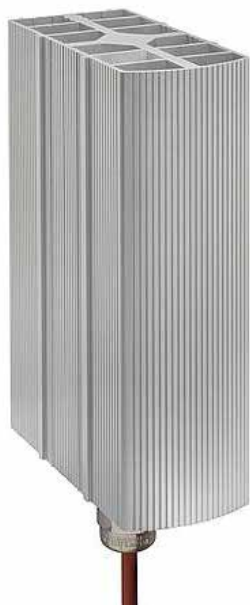
Note: "F" is added to the reference if carried filter.

Specifications are for 100 psig (6.9 bar) compressed air. Cold Air Ducting Kits and Cold Air Mufflers included.

Use of a purge system is required. Purge system and spark arrestor are not included.



HAZARDOUS AREA HEATER EX



Example

Compact convection heater of temperature class T5 (100°C max.) for the prevention of formation of condensation, temperature fluctuations, and for protection against frost within control and switch cabinets, as well as measuring equipment located in areas with explosion hazard, underground mines or mines susceptible to firedamp.



ADVANTAGES

- Large convection surface.
- Ready-to-use with strain relief.
- Maintenance free.
- Temperature class T5.

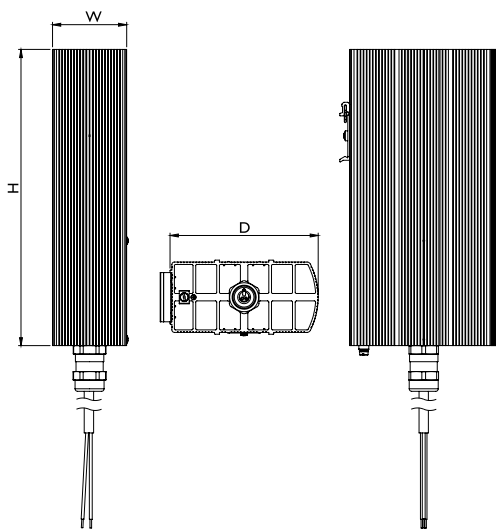


TECHNICAL FEATURES

- Heating element: high performance cartridge.
- Heating body: aluminium profile, silver anodised.
- Connection: silicone cable (halogen-free) 3 x 0.75mm².
- Connection PE: 0,75 to 2,5mm².
- Mounting clip for 35 mm DIN rail, EN 60715 for heating body size 120 x 60 mm; screw fixing with 2 plug-on flanges for all heating body sizes, optional widthwise mounting.
- Fitting position: vertical airflow.
- Ambient temperature: -60 to +50°C.
- Surface temperature max.: max. +100°C.
- Storage temperature: -60 to +85°C.
- Protection type IP66.
- Protection: Ex db IICT5 Gb, I M2 Ex db I Mb and Ex tb IIICT I 100°C Db IP66.
- Approvals Atex, IECEx and EAC.



PLAN AND REFERENCES



HAZARDOUS AREA HEATERS EX		
REFERENCES	TENSIÓN DE ALIMENTACIÓN / POTENCIA	DIMENSIONS (DxWxH)
RCEX050A	AC 230 V / 50W	120x60x180
RCEX050B	AC 120 V / 50W	120x60x180
RCEX100A	AC 230 V / 100W	160x80x300
RCEX100B	AC 120 V / 100W	160x80x300





HAZARDOUS AREA THERMOSTATS



Example

Compact, small mechanical thermostat offering a high response accuracy/time, small switch temperature difference, and a very long service life (switching cycles). This thermostat of temperature class T6 (85 ° max.) is utilised for the regulation of heaters within control and switch cabinets, as well as measuring equipment located in areas with explosion hazard, underground mines and mines susceptible to firedamp. The high switching performance allows for direct control of heaters.

ADVANTAGES

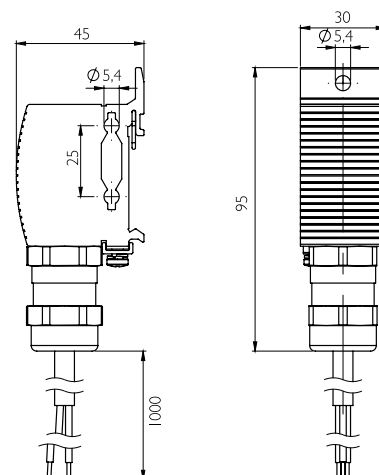
- High switching capacity.
- Ready-to-use with strain relief.
- Compact design.
- Temperature class T6.

TECHNICAL FEATURES

- Ex Protection type: Ex db IICT6 Gb, Ex tb IICT85°C Db IP66 and I M2 Ex db I Mb.
- Ambient temperature: -60 to +60 °C.
- Sensor element thermostatic bimetal.
- Service life > 100,000 cycles.
- Max. switching capacity: AC 250 V 10 A I and DC 24 V 1 A.
- Min. switching capacity DC 1.5 V 5 mA.
- Max. inrush current AC 16 A for 12 sec.
- Connection silicone cable 3 x 1 mm².
- Connection PE: 1,0 a 2,5 mm².
- Fijación clip para carril de 35 mm DIN, EN 60715 fijación tornillos M5. Carcasa aluminio, anodizado plata.
- Dimensiones: 95 x 45 x 30 mm.
- Posición de montaje variable.
- Temperatura almacenamiento -60 a +85 °C.
- Grado de protección/Clase de protección IP66 / I (conductor de protección).
- Approvals Atex, IECEx and EAC.

PLAN AND REFERENCES

ATEX THERMOSTATS				
REFERENCES	CABLE LENGTH	CONTACT TYPE (1-POLE)	SWITCH TEMPERATURE	SWITCH TEMPERATURE DIFFERENCE
THEX001	1 m	Contact breaker (NC)	+15 °C (±3 K tolerance)	5 K (±3 K tolerance)
THEX002			+25 °C (±3 K tolerance)	





AUTOMATIC BREATHER AND DRAINAGE VALVES

VATEX SERIES IP66

Preventing the Formation of Condensation Inside the Enclosure



Example

➔ [FOR MORE INFORMATION CLICK HERE](#)

Automatic drainage and breather valves are suitable to be used on increased safety, intrinsically safety or watertight enclosures to facilitate the elimination of condensation or vapors developed inside. Thanks to a precise mechanism, it is possible to obtain a continuous drainage and breathing of the junction box, protecting it from the possible formations of internal condensation and thus avoiding the periodic manual discharge, while ensuring a suitable IP degree of protection. We recommended minimum 2 units per enclosure

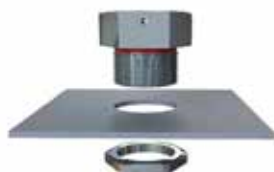
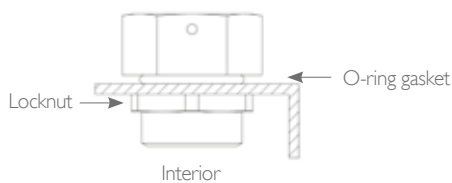


CARACTERÍSTICAS

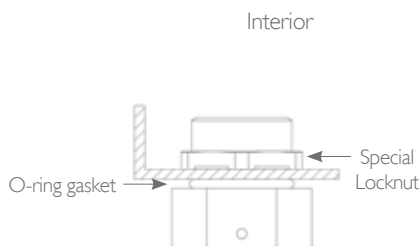
- Material: AISI 316 stainless steel o nickel-plated.
- Internal filter: stainless steel.
- Gaskets: silicone.
- Internal seeger: stainless steel
- Protection grade: IP66
- Temperature: -60°C + 150°C



INSTALLATION



BREATHER VALVE



DRAINAGE VALVE

AUTOMATIC BREATHER AND DRAINAGE VALVES **VATEX SERIES** IP66

WORKING

How valve Works:

IP66 Waterproof Anti-condensation valve to facilitate air circulation by convection inside the modules, preventing the formation of condensation. Pressure differences in enclosures with a high degree of protection from moisture and dust, are the result of fluctuations in internal

and external temperature. If negative pressure or vacuum dust and moisture can be absorbed by the sealed doors and can enter the hazardous area enclosure. Because moisture can not escape, condensation can occur. Allows to regulate the pressure to prevent condensation following an increase in the internal temperature.

CERTIFICATION

- II 2GD Ex eb IIC Gb
- Ex tb IIC Db

Directive and normative ATEX:

- Directiva ATEX 2014/34/UE
- EN 60079-14

Normative IECEx:

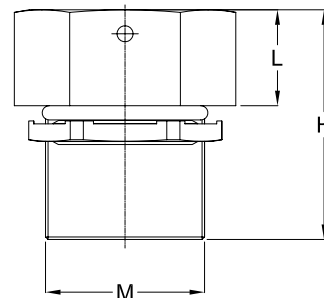
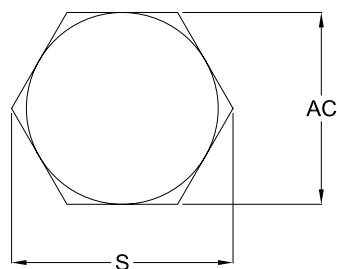
- IEC 60079-0: 2011

- IEC 60079-7:2015
- IEC 60079-31: 2013

Low voltage directive and regulations:

- Directiva de 2014/34/UE
- EN 60079-0: 2012
- EN 60079-7: 2015
- EN 60079-31: 2014

PLAN AND REFERENCES



REFERENCES							
CODE	USE	MATERIAL	DIMENSIONS (mm)				
			M	AC	S	H	L
MVVAC04B.M20.S6.Ex	Breather	Stainless Steel	M20x1,5	24	28	26	12
MVVAC04D.M20.S6.Ex	Drainage		M20x1,5	24	28	26	12
MVVAC04B.M20.ON.Ex	Breather	Nickel-Plated	M20x1,5	24	28	26	12
MVVAC04D.M20.ON.Ex	Drainage		M20x1,5	24	28	26	12



EX LIGHTING FIXTURE



EX LINEAR LUMINAIRE FOR HAZARDOUS AREAS



EXPLOSION PROOF FLUORESCENT LIGHT FITTING



WE HAVE AVAILABLE LIGHTING SOLUTIONS
FOR HAZARDOUS AREAS



EX LIGHTING FIXTURE FOR HAZARDOUS AREAS

LED LIGHTING SOLUTIONS

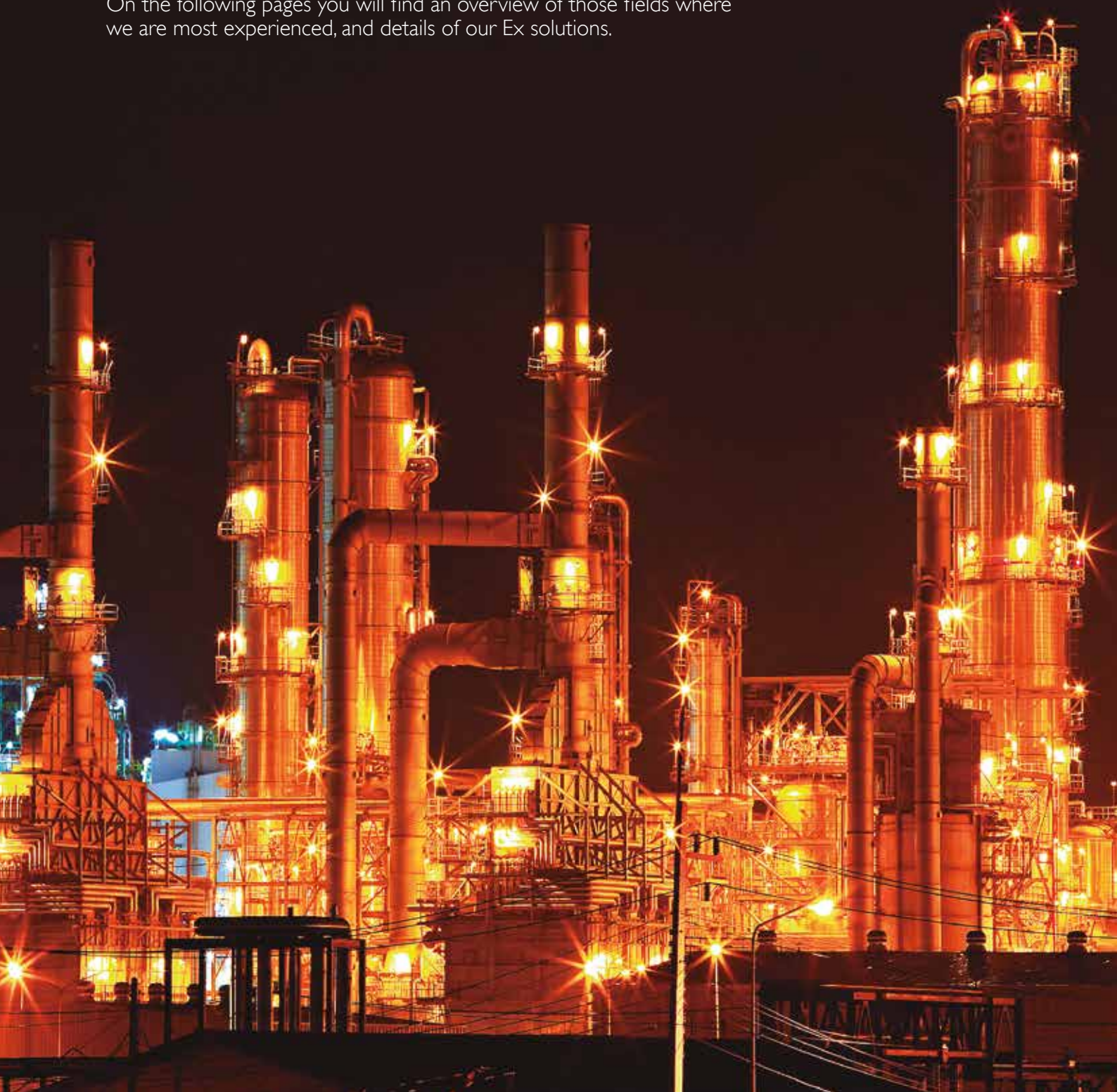


A WIDE EXPERIENCE IN THE MOST DEMANDING FIELDS

In recent years we have acquired experience and knowledge in every productive field. Each installation has peculiarities which must be dealt with in specific way.

Our solutions for protection against explosions fit the characteristics of the environment where they will be implemented. We are eager to face the challenges set by the most demanding industrial fields, giving them the best solution for their projects.

On the following pages you will find an overview of those fields where we are most experienced, and details of our Ex solutions.



OIL & GAS

The best solutions for the most demanding industry



Companies operating in Oil & Gas fields are especially exposed to extreme conditions: corrosion, vibrations, salinity and chemical products... These are just some of the things that they face every day.

For the Oil & Gas industry it is crucial to comply strictly with the Atex directive in all processes: sampling, compressors, control systems, control instrumentation, fracking, distribution systems, transformers..... as well as enclosures and components for use in Zones 1, 2, 21 and 22.

Therefore, at Delvalle we know how to meet the needs of our customers whose activity is involved in the Oil & Gas industry. We help them to achieve their strategic and quality objectives, increasing their business value.

Thanks to our engineering team, our Atex product range covers the needs of equipment and safety, required in this field worldwide, providing a total customized solution in a very short time.

Corrosion,
vibrations
and salinity
are solved
problems



OFFSHORE & HIGH SEAS

Safe and reliable equipments

On offshore
platforms
risks must
be minimal

In Delvalle thanks to our long history, we are able to manufacture and offer a wide variety of personalised enclosures for customers who work in this complicated sector: Offshore

We are aware of corrosion problems and the different climate conditions to which these facilities are exposed. For this reason, we offer our customers advice about the most suitable materials to use on platforms and similar. We offer the most reliable results with our range of Atex cabinets and accessories.

Here, the problems are the prolonged exposure of materials and installations to salt water. Problems like surface corrosion and scratches or cracks are challenges that Delvalle has overcome.





INDUSTRY & MACHINERY

Necessary protection for sensitive equipment

This sector is one of the most important for Delvalle. Our Ex Atex solutions have the ability to integrate a wide variety of new technologies to increase the protection of sensitive instruments, so common in this field.

Delvalle products are able to provide the highest quality warranty. The results are more than satisfactory throughout the whole manufacturing process from beginning to end.

All system
components Atex
certified



CHEMICAL & REFINERY

The best solutions with quality products

Delvalle has the experience and know-how needed to provide solutions to every company involved in the chemical industry and in oil refineries.

Companies which demand high-security solutions and high-quality materials.

Explosion risk is very high in working environments in the Chemical industry and Oil refineries.

A small mechanical failure may create an excess of heat and be the cause of an explosion.

It is very important to take into account these factors when designing and using devices which must strictly meet current Atex standards.

Thanks to our process management, work-flow and data collection systems, Delvalle is able to offer its customers a complete (efficient, top quality) solution in a short time.

Hydrocarbons
handled in refineries
are highly flammable



PHARMACEUTICAL

High quality to give the best solutions



Alcohols and solvents are dangerous products. Delvalle has the experience and know-how needed to provide solutions to all companies in the pharmaceutical industry, which demand high-security solutions and high-quality materials.

Explosion risk is very high in working environments within the Pharmaceutical industry. A small mechanical failure may create an excess of heat and be the cause of an explosion. It is very important to take into account these factors when designing and using devices which must strictly meet current Atex standards.

Thanks to our process management, work-flow and data collection systems, Delvalle is able to offer its customers a complete efficient (top quality) solution in a short time.

Use of
alcohols
and solvents
always carries
a risk



MARITIME & SEAPORTS

Inaccessible environments require minimal risks



Sea water corrosion must be fully controlled to minimize risks.

Our Ex Atex enclosures offer applications such as: systems for cranes, piers, supertankers, ship decks...

An Atex enclosure must ensure not only total content sealing, but also corrosion resistance, mechanical strength, even after including components. What our customers value most is resistance against vibration and impacts.

They also value the ease of installation because when you are in a facility of these characteristics, speed is of the utmost importance.

Our priority:
to guarantee
protection and
to prevent
corrosion



FIELDSTATIONS

Maximum safety and efficiency in a complex installation

When
longevity and
reliability are
essential

Tough environmental conditions require a long-running and maintenance free solution to guarantee the enclosures a durability that protects for decades with no failures. Longevity and reliability are increasingly demanded key-factors in this sector.

When manufacturing these enclosures at Delvalle we use the concept of "increased safety". In addition to complying with the Atex regulations, we can provide durability and have all components duly certified.





FOOD & BEVERAGE

The best solutions for the most visible industry to the end user

In the food and beverage industry it's essential to ensure anti-dust sealing in hazardous areas.

Distilleries are one of the industries in which the movement of hazardous materials is required and in which hazardous gases are generated.

Besides our Atex solutions covering all requirements, for the food and drink sector, another determining factor is hygiene and cleanliness because of the special incidence for the end user.

Our cabinets are manufactured in stainless steel. This offers maximum aseptic conditions at the workstation. We adapt easily to every requirement of size, format, characteristics... Our versatility is recognized throughout the industry.

Gases and
vapours must
remain under
control



PAPER INDUSTRY

Raw materials such as paper and chemicals, when used together are highly flammable



We avoid
paralyzing
graphic arts
assembly line

We supply cabinets to outlets visited by the public (such as malls) so we make sure that everything is built in an aesthetically pleasing manner.

The printing industry is no different. In fact, the printing industry requires this type of enclosures. There are frequently small incidents that can paralyze a whole printing line because they can affect the electrical system.

Here, an Atex cabinet can be decisive to not affect production and cause delays in deliveries.



AIR TRANSPORT

When securing a facility is paramount

Telecommunications,
beacons and probes,
are secure

Our cabinets can be integrated into a wide variety of places, static and movable. For example control panels for loading and unloading, signalling and access control, telecommunications, beacons and probes... so necessary for guiding aircraft on takeoff and landing.

Usually, these outdoor installations need to be protected and totally safe in order to overcome explosion risks, as they are placed in specially sensitive environments. In Delvalle, we are specialists in producing solutions fully adapted to this sector; our experience allows us to anticipate customer's requests.



NUCLEAR & THERMAL POWER

We are responsible for providing maximum guarantees

Recent events have shown that we must tighten security at these facilities. The impact of not being rigorous enough can affect not only the area but also our legacy to future generations.

In this line, our Atex enclosures for the nuclear industry exceed the most demanding and harsh internal tests before delivery to our clients. We can also suggest options from our engineering department to minimize risks based on our long experience.

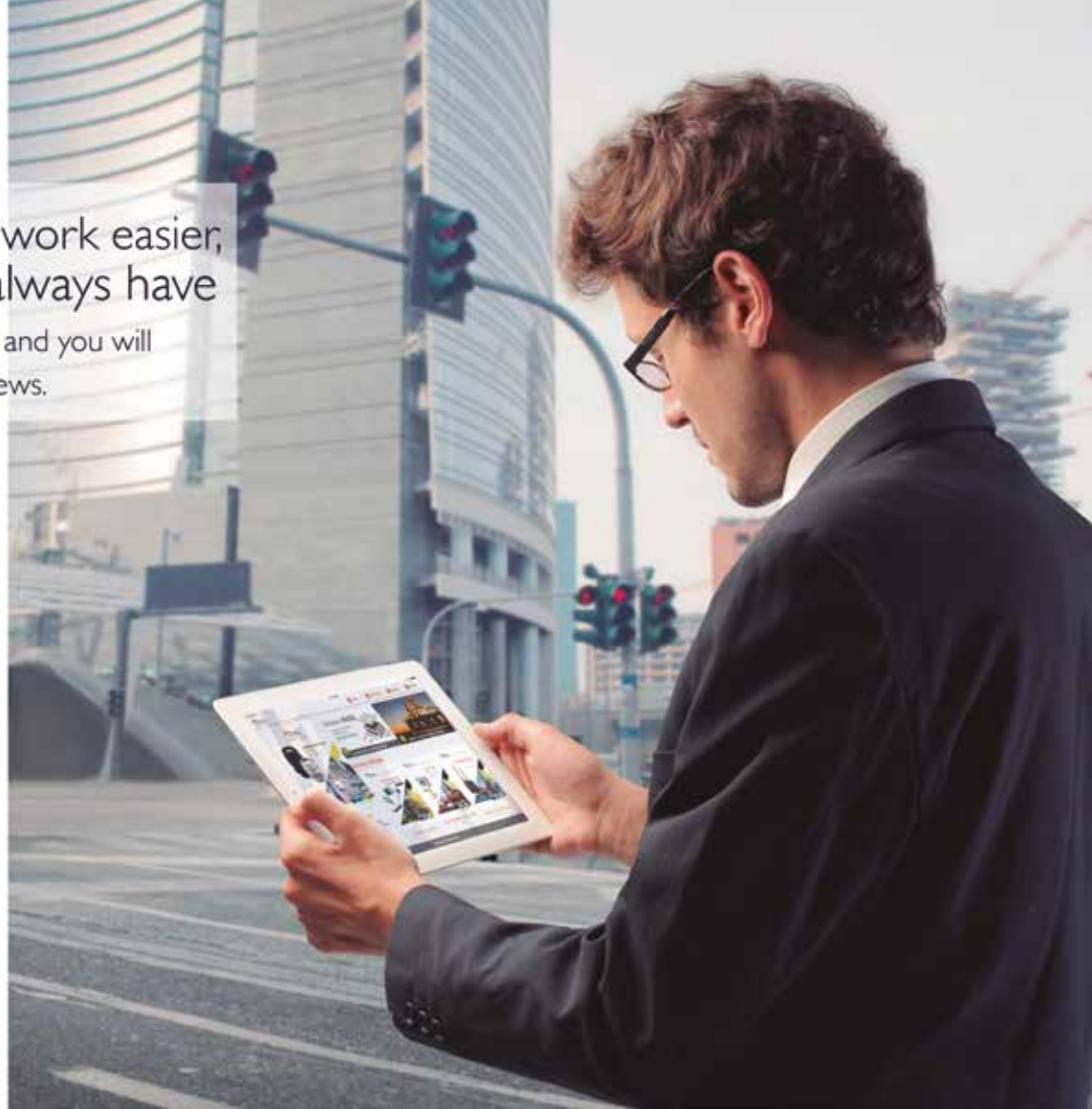
The upmost
safety is a
priority and
a commitment



We want to make you work easier,
Now with our App, you will always have
our catalogs updated and you will
receive our alerts with the latest news.



Free Download at
www.atexdelvalle.com
Available in English and Spanish.





FLEXIBLE ATEX & IECEX SOLUTIONS



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Contact us, we will be available at any time