



SAFETY AND ISOLATION SWITCHES ATEX & IECEX



Distributed by BOXCO AB, +46 8 580 210 10
info@boxco.se - www.boxco.se





SAFETY AND ISOLATION SWITCHES ATEX & IECEX

Robust and Easy to Install



Example screw closure (Geoex)



Example hinged closure (Luxorex)

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 (1) 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, specially 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)

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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.

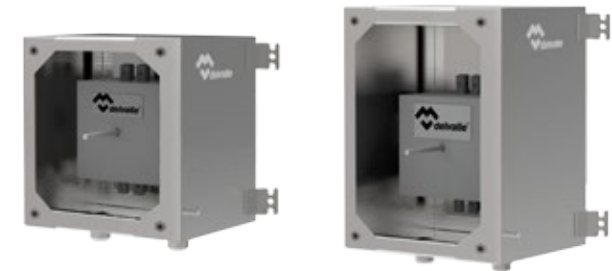
- $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
- $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$

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.



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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

NORMATIVE

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:

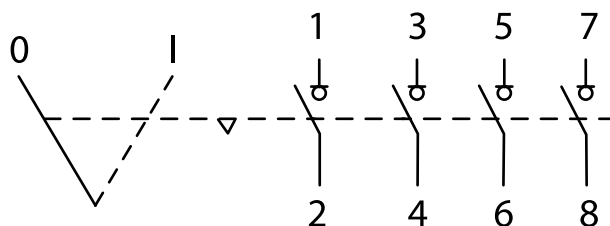
- IP regulation (IP65): IEC 60529
- IK regulation (IK10): IEC 62262

Low voltage directive and regulation:

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

ELECTRICAL DIAGRAM

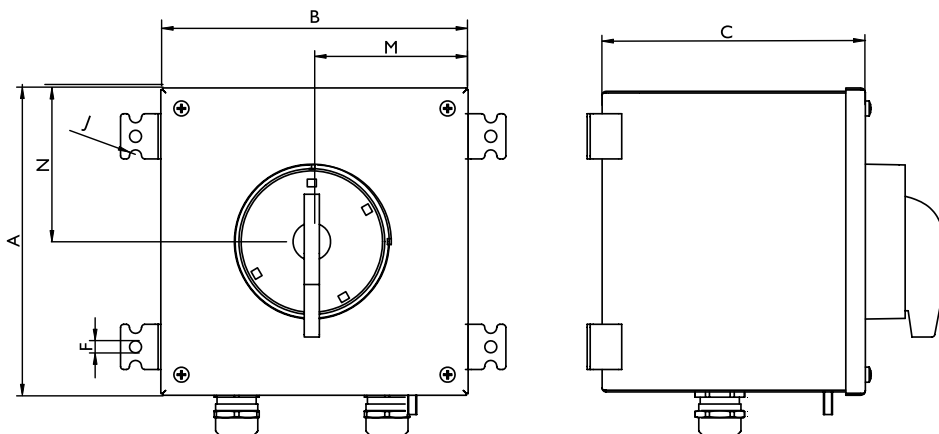
The electrical diagram is the following in case you have chosen four poles.



SAFETY AND ISOLATION SWITCHES ATEX & IECEX

BLUEPRINT AND DIMENSIONS GEOEX

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



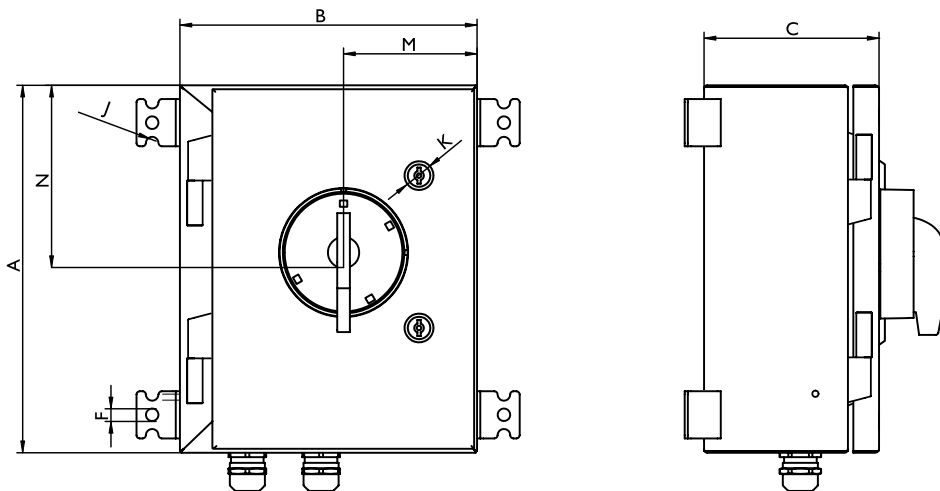
SAFETY AND ISOLATION SWITCH GEOEX - DIMENSIONS (mm)

| 25A | | | | | | | |
|------|-----|-----|-----|-----|----|------|-------|
| | A | B | C | F | J | N | M |
| 3P | 175 | 150 | 110 | D10 | R5 | 87,5 | 75 |
| 4P | 175 | 150 | 110 | D10 | R5 | 87,5 | 75 |
| 3P+N | 175 | 150 | 110 | D10 | R5 | 87,5 | 75 |
| 6P | 175 | 150 | 150 | D10 | R5 | 87,5 | 75 |
| 40A | | | | | | | |
| | A | B | C | F | J | N | M |
| 3P | 200 | 200 | 175 | D10 | R5 | 100 | 100 |
| 4P | 200 | 200 | 175 | D10 | R5 | 100 | 100 |
| 3P+N | 200 | 200 | 175 | D10 | R5 | 100 | 100 |
| 6P | 200 | 200 | 210 | D10 | R5 | 100 | 100 |
| 80A | | | | | | | |
| | A | B | C | F | J | N | M |
| 3P | 250 | 250 | 200 | D10 | R5 | 125 | 125 |
| 4P | 250 | 250 | 200 | D10 | R5 | 125 | 125 |
| 3P+N | 250 | 250 | 200 | D10 | R5 | 125 | 125 |
| 6P | 250 | 250 | 240 | D10 | R5 | 125 | 125 |
| 180A | | | | | | | |
| | A | B | C | F | J | N | M |
| 3P | 350 | 275 | 250 | D10 | R5 | 175 | 137,5 |
| 4P | 350 | 275 | 250 | D10 | R5 | 175 | 137,5 |
| 3P+N | 350 | 275 | 250 | D10 | R5 | 175 | 137,5 |
| 6P | 350 | 275 | 300 | D10 | R5 | 175 | 137,5 |



SAFETY AND ISOLATION SWITCHES ATEX & IECEX BLUEPRINT AND DIMENSIONS LUXOREX

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



SAFETY AND ISOLATION SWITCH LUXOREX - DIMENSIONS (mm)

| 25A | | | | | | | | |
|------|-----|-----|-----|-----|----|-----|-----|-----|
| | A | B | C | F | J | K | N | M |
| 3P | 300 | 250 | 150 | D10 | R5 | D27 | 150 | 125 |
| 4P | 300 | 250 | 150 | D10 | R5 | D27 | 150 | 125 |
| 3P+N | 300 | 250 | 150 | D10 | R5 | D27 | 150 | 125 |
| 6P | 300 | 250 | 200 | D10 | R5 | D27 | 150 | 125 |
| 40A | | | | | | | | |
| | A | B | C | F | J | K | N | M |
| 3P | 270 | 270 | 200 | D10 | R5 | D12 | 135 | 135 |
| 4P | 270 | 270 | 200 | D10 | R5 | D12 | 135 | 135 |
| 3P+N | 270 | 270 | 200 | D10 | R5 | D12 | 135 | 135 |
| 6P | 270 | 270 | 250 | D10 | R5 | D12 | 135 | 135 |
| 80A | | | | | | | | |
| | A | B | C | F | J | K | N | M |
| 3P | 300 | 300 | 200 | D10 | R5 | D12 | 150 | 150 |
| 4P | 300 | 300 | 200 | D10 | R5 | D12 | 150 | 150 |
| 3P+N | 300 | 300 | 200 | D10 | R5 | D12 | 150 | 150 |
| 6P | 300 | 300 | 250 | D10 | R5 | D12 | 150 | 150 |
| 180A | | | | | | | | |
| | A | B | C | F | J | K | N | M |
| 3P | 350 | 320 | 250 | D10 | R5 | D12 | 175 | 160 |
| 4P | 350 | 320 | 250 | D10 | R5 | D12 | 175 | 160 |
| 3P+N | 350 | 320 | 250 | D10 | R5 | D12 | 175 | 160 |
| 6P | 350 | 320 | 300 | D10 | R5 | D12 | 175 | 160 |





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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 | EX |

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

