



GRP SAFETY AND ISOLATION SWITCHES ATEX & IECEX



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GRP SAFETY AND ISOLATION SWITCHES ATEX & IECEx

Robust and Easy to Install



Example 16A



Example 80A



Example 25A



Example 40A



Example 180A

The GRP 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.

The GRP Ex safety and isolation switch are made of glass fibre reinforced polyester "Ex e". 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 IP66 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 1, 2, 21 and 22; with features of high corrosion protection, water -proof and dustproof, they can meet the requirements in chemical, petrochemical and marine industries.

Separately certified Ex load isolation switch module is mounted inside. It can be used to disconnect the power when there is maintenance, clean and repair in the circuit with frequency AC50/60Hz, rated voltage 230V and 690V, rated current 16~180A.

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 1, 2, 21 and 22.



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CHARACTERISTICS

- Explosion protection: Zones 1, 2, 21 and 22.
- Degree of protection IP66.
- IECEX and ATEX international certification.
- Switch is with interlock which is in the state of lock in, the switch is not turn on.
- Operation handle with padlock device.
- Utilization category: AC-23, AC-3.
- Enclosure features:
 - The enclosures of black are made of glass fibre reinforced polyester and concave-convex joints between the covers and bodies are designed to mount an air-foam silicone bar.
 - The entry may have polyamide, nickel-plated or stainless steel Ex cable glands. The unused entries must be sealed with the stopping plugs.



OPTIONS

- The Ex switch rated current is between: 18A, 25A, 40A, 80A and 180A.
- The switch has two models of selectors:
 - black operation handle is standard type
 - red/yellow operation handle is emergency stop type
- Choice of poles between 3 poles, 3 poles + neutral, 4 poles and 6 poles.
- Possibility of including auxiliary contacts.
- ATEX cableglans:
 - polyamide
 - nickel-plated brass
 - stainless steel AISI 303L, AISI 304L or AISI 316L

ADVANTAGES

- It can be used to disconnect the power when there is maintenance, clean and repair in the circuit.
- Get a total stoppage of the machinery so that the necessary activities can be carried out without any risk to the operator.
- It is impossible to start the machine when working on it thanks to the mechanical blocking of the disconnecter.
- Boxes reinforced polyester ATEX boxes with high corrosion protection, water-proof and dustproof.





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PROTECTION MODE

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

- CML I9ATEX3303X
- II 2GD Ex db eb II CT6/T5 Gb

- Ex tb III T80°C/T95°C Db

IECEX mark:

- IECEX CML I9.0088X
- Ex db eb II CT6/T5 Gb
- Ex tb III CT80°C/T95°C Db

NORMATIVE

Atex directive and regulations:

- Atex directive 2014/34/UE
- EN 60079-0:2018
- EN 60079-1:2014
- EN 60079-7:2015
- EN 60079-31:2014 IECEX

regulations:

- IEC 60079-0:2018
- IEC 60079-1:2014
- IEC 60079-7:2015
- IEC 60079-31:2014

Enclosure regulations:

- Degree of protection IP66

- Certificate numbers:

- IECEX CML I9.0088X
- CML I9 ATEX 3303X

- Protection type:

- II 2GD Ex db eb ib mb II CT5 Gb
- Ex ib tb III CT95°C Db

- Normative:

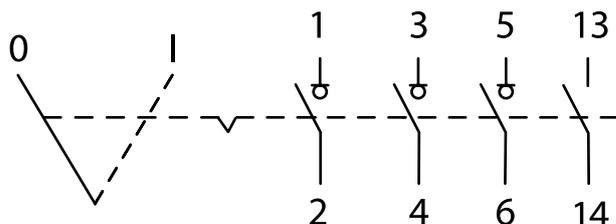
- Directive 2014/34/EU
- Operating temperature (ambience):
- $-40^{\circ}\text{C} < T_a < +40/55^{\circ}\text{C}$

Low voltage directive and regulation:

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

ELECTRICAL DIAGRAM

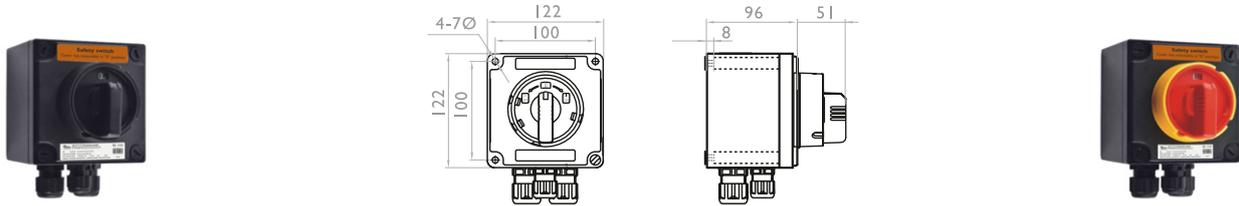
The electrical diagram is the following in case you have chosen three poles + aux.





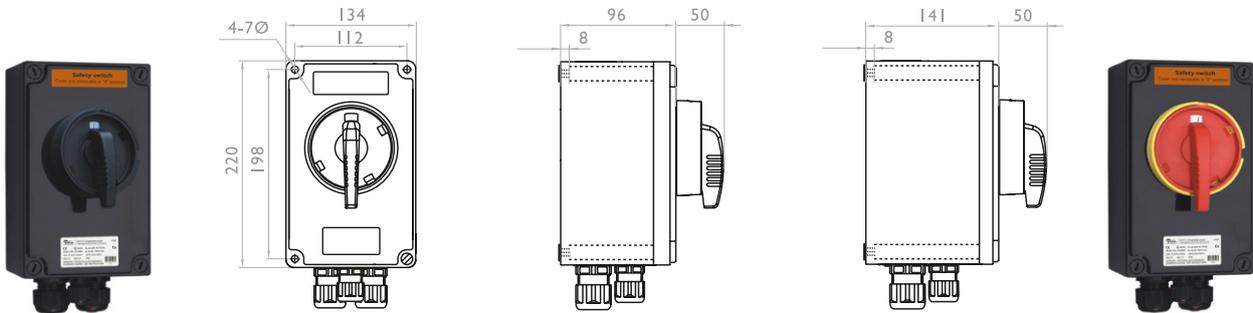
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DIMENSIONS AND REFERENCES



Safety switch 16A - 3P

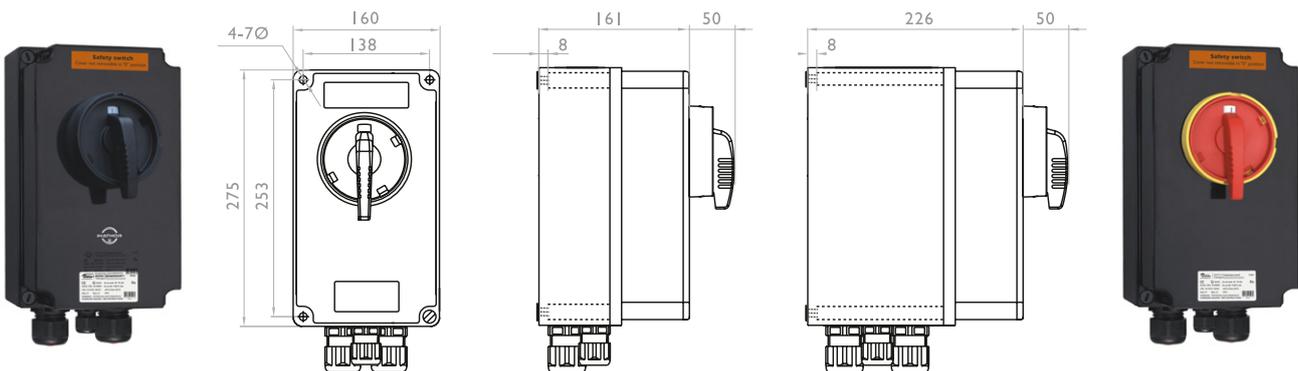
GRP SAFETY SWITCH - 16A						
RATED CURRENT	VOLTAGE	TERMINAL	RATED INSULATION VOLTAGE	RATED IMPULSE WITHSTAND VOLTAGE	RATED SHORT-TIME WITHSTAND CURRENT (Icw)	RATED SHORT-TIME MARKING CAPACITY
Max. 16A	Max. 400V	2x2.5mm ²	690V	6KV	10KA	17KA



Safety switch 25A - 3P

Safety switch 25A - 6P

GRP SAFETY SWITCH - 25A						
RATED CURRENT	TERMINAL	CAPACITY OF SWITCH	RATED INSULATION VOLTAGE	RATED IMPULSE WITHSTAND VOLTAGE	RATED SHORT-TIME WITHSTAND CURRENT (Icw)	RATED SHORT-TIME MARKING CAPACITY
Max. 25A	2x4mm ²	230V 25A 400V 25A 500V 20A 690V 16A	800V	6KV	3KA	10KA



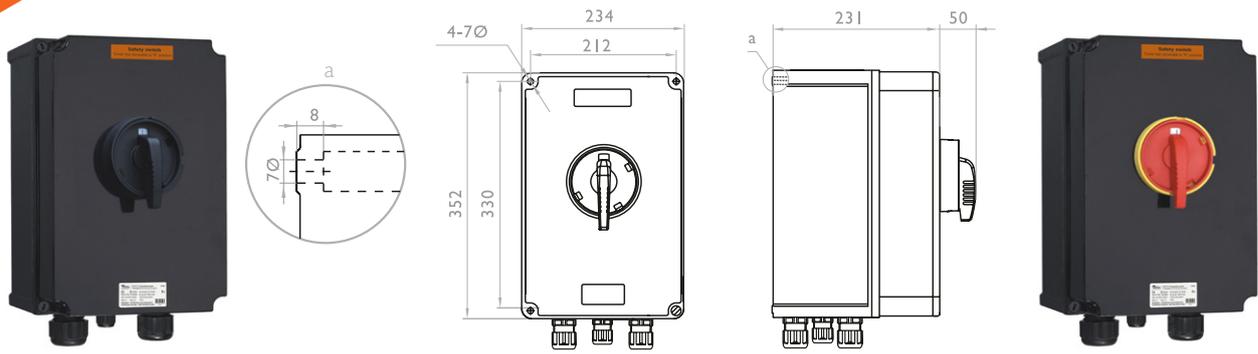
Safety switch 40A - 3P

Safety switch 40A - 6P

GRP SAFETY SWITCH - 40A						
RATED CURRENT	TERMINAL	CAPACITY OF SWITCH	RATED INSULATION VOLTAGE	RATED IMPULSE WITHSTAND VOLTAGE	RATED SHORT-TIME WITHSTAND CURRENT (Icw)	RATED SHORT-TIME MARKING CAPACITY
Max. 40A	2x10mm ² 2x4mm ² (auxiliary)	230V 40A 400V 40A 500V 40A 690V 32A	800V	6KV	3KA	10KA

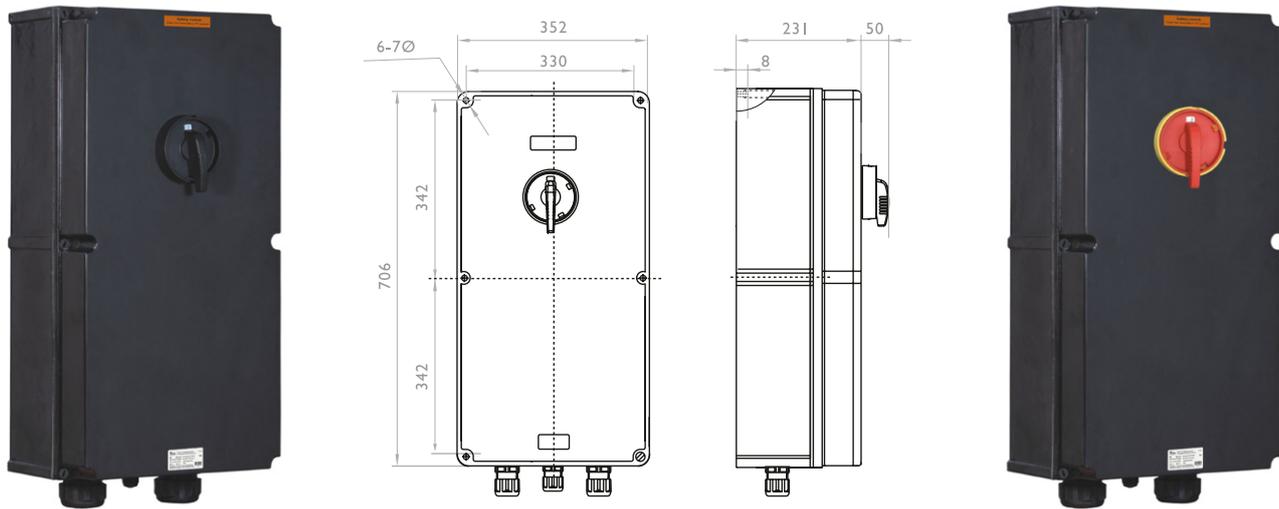


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Safety switch 80A - 3P | 6P

GRP SAFETY SWITCH - 80A						
RATED CURRENT	TERMINAL	CAPACITY OF SWITCH	RATED INSULATION VOLTAGE	RATED IMPULSE WITHSTAND VOLTAGE	RATED SHORT-TIME WITHSTAND CURRENT (Icw)	RATED SHORT-TIME MARKING CAPACITY
Max. 80A	1x35mm ² 2x4mm ² (auxiliary)	230V 80A 400V 80A 500V 80A 690V 63A	800V	6kV	10kA	17kA



Safety switch 180A - 3P

GRP SAFETY SWITCH - 180A						
RATED CURRENT	TERMINAL	CAPACITY OF SWITCH	RATED INSULATION VOLTAGE	RATED IMPULSE WITHSTAND VOLTAGE	RATED SHORT-TIME WITHSTAND CURRENT (Icw)	RATED SHORT-TIME MARKING CAPACITY
Max. 180A	1x50/70mm ² (125A) 1x120mm ² (180A) 2x4mm ² (auxiliary)	230V 180A 400V 180A 500V 150A 690V 125A	800V	6kV	10kA	17kA

TYPE	RATED CURRENT (A)	HANDLE'S COLOUR SWITCH	NUMBER OF POLES	AUXILIARY CONTACTS	EX
SSIS-GRP	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
	16 25 40 80 180	R N	3P 3PN 4P 6P	NONC 2NC 2NO NC NO	