# Heavy Duty Emergency Stops: GLES & GLES-SS

# **DESCRIPTION & FEATURES:**

IDEM GLES and GLES-SS Heavy Duty Emergency Stop Switches have been designed to provide robust emergency stop protection for machines or exposed conveyors, and are suitable for use within virtually all industry sectors.

Visual indication is available (large LEDs) to provide powerful indication of system and switch status from a distance, therefore enabling the rapid resetting of the system. Optional LED indication - Steady Green: Machine Running and Flashing Red: Machine Stopped.

Contact blocks provide up to 4 positively operated switch contacts. An optional Explosion Proof ATEX certified contact block version is available for potentially explosive areas.

- Heavy duty rugged die-cast metal body (painted yellow) or Stainless Steel 316 (Food Industry compatible).
- Conformance to ISO13850, EN60947-5-1 and EN60947-5-5.
- LED visual indication of status.
- All internal and external screws and fittings are Stainless Steel.
- Enclosure protection to IP67 washdown suitable.
- Easy to wire offering up to 4 conduit entry points for flexibility.



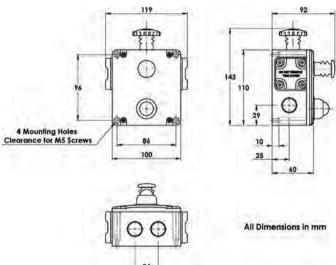


#### S/STEEL 316 SALES GLAND NUMBER M20 140120 1/2" NPT



**IDEM** recommend using our Stainless Steel 316 Gland with this switch.





SALES NUMBER	TYPE	CONDUIT ENTRY	CONTACTS
146001	GLES	M20	4NC 2NO
146002	GLES	1/2"NPT	4NC 2NO
146003	GLES-Ex	3m 4 core Ex	1NC 1NO
146004	GLES-Ex	3m 8 core Ex	3NC 1NO
146005	GLES-Ex	3m 4 core Ex	2NC
146006	GLES-Ex	3m 8 core Ex	2NC 2NO
147001	GLES-SS	M20	4NC 2NO
147002	GLES-SS	1/2"NPT	4NC 2NO
147003	GLES-SS-Ex	3m 4 core Ex	1NC 1NO
147004	GLES-SS-Ex	3m 8 core Ex	3NC 1NO
147005	GLES-SS-Ex	3m 4 core Ex	2NC
147006	GLES-SS-Ex	3m 8 core Ex	2NC 2NO
For LED Models add Voltage Code to Sales Number A - 24Vdc B - 110Vac C - 230Vac (i.e. 146001 with 24Vdc LED: Order 146001-A			

Gold Plated Contacts available for low power circuits (5V 5mA). Ordering: Add GC to Part Number e.g. 146001-A-GC

### **TECHNICAL SPECIFICATIONS:**

EN60947-5-1 EN60947-5-5 EN62061 UL 60947-5-1 ISO13850 ISO13849-1

Safety Classification and Reliability Data:

Mechanical Reliability B10d 1.5 x 106 operations at 100mA load

ISO13849-1 Up to PLe depending upon system architecture

EN62061 Up to SIL3 depending upon system architecture

Safety Data - Annual Usage

8 cycles per hour/24 hours per day/365 days MTTFd 214 years

Enclosure/Cover Material Die-cast (painted yellow) or Stainless Steel 316

IP67 IP69K IP Rating

Mounting 4 x M5 Mounting Position Any

4 x M20 or 4 x 1/2" NPT (by Sales Number) Conduit Entries

Tongue Settings Mounting M5 4.0Nm

-25C +80C

Lid T20 Torx M4 1.5Nm Terminals 1.0Nm

Ambient Temperature Vibration Resistance Shock Resistance

Weight

EX Contact Type

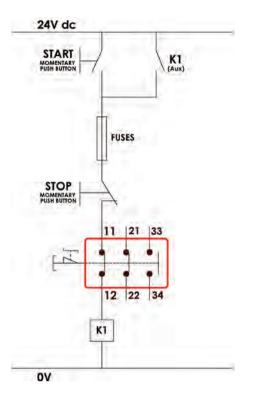
765g to 2050g 230V 4A (4-core) 230V 2.5A (8-core)

10-500Hz 0.35mm 11ms 15q

# Application Information Emergency Stop Switches

# **APPLICATION 1:**





#### Application 1: Single Channel E Stop and Stop/Start Circuit.

Used in applications with a lower risk, pressing the E Stop will stop the machine. The E Stop will latch and needs re-setting before the machine Start Button can be effective.

Pressing the Start button will cause the machine contactor K1 to close and latch via its own auxiliary contacts (K1 (Aux)).

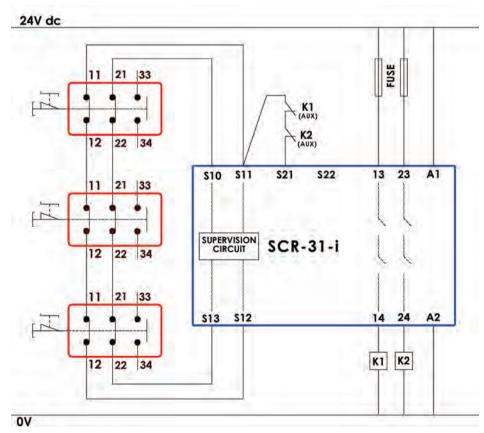
No wiring cross monitoring, all wiring should be protected and the components chosen for correct durability and ratings.

Regular checks of the Safety Function is required.

Stop Category 0 EN60204-1

#### **APPLICATION 2:**





Application 2: Dual Channel E-Stops in Series with wiring cross-monitoring and auto reset.

Multiple E-Stop switches connected dual circuit to a Safety Relay.

Generally used on machines with a medium risk. Activating any E Stop Switch will open the outputs from contactors K1 and K2 and stop the machine. The E Stop switch will latch. Re-setting the E Stop switch will enable the machine contactors K1 and K2 to close providing the feedback circuit check from both contactors (K1 K2 Aux) is closed. Due to series wiring and multiple devices, not all contact or wiring faults will be detected before the next start up.

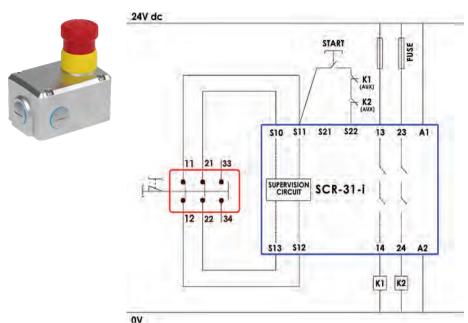
Regular checks of the Safety Function is required.

Stop Category 0

EN60204-1

# Application Information Emergency Stop Switches

# **APPLICATION 3:**



Application 3: Dual Channel E Stop with wiring cross-monitoring and external manual reset.

Single E-Stop switch connected dual circuit to a Safety Relay.

Generally used on machines with a high risk.

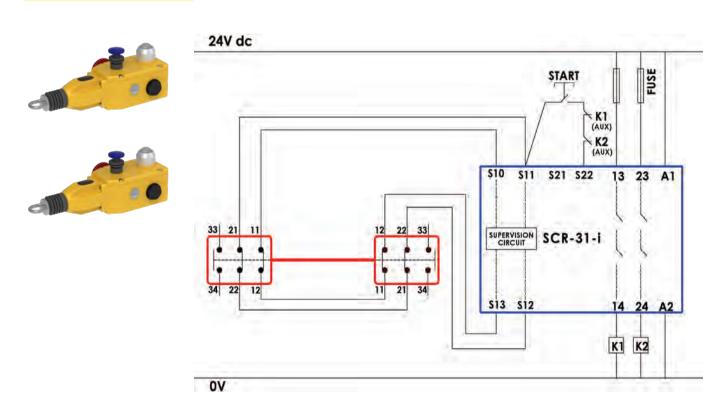
Activating the E Stop Switch will open contactors K1 and K2 and stop the machine.

The E Stop switch will latch and need to be reset before the Start Button can be effective.

Pressing the Start Button will cause the machine contactors K1 and K2 to close providing the feedback circuit check from both contactors (K1 K2 Aux) is closed. A failure of one of the switching elements of the E Stop switch or wiring short circuit will be detected at least before the next start up.

Stop Category 0 EN60204-1

# **APPLICATION 4:**



### Application 4: Dual Channel Rope Pull E-Stop Switches with wiring cross-monitoring and external manual reset.

Generally used on conveyor applications with a high risk.

Activating the Rope Pull Switch will open the Safety Relay outputs and stop the machine.

The Rope Pull Switches, (one or both), will latch and need re-setting before the Start Button can be effective.

Pressing the Start button will cause the machine contactors K1 and K2 to close providing the feedback circuit check from both contactors (K1 K2 Aux) is closed. A failure of one of the switching elements of the E-Stop switch or wiring short circuit will be detected at least before the next start up.

Stop Category 0 EN60204-1