

Hygienic Emergency Stops Type: ESL-SS-WR (4 pole)

DESCRIPTION & FEATURES:

ESL-SS-WR



IP69K

ESL-SSL-WR
with bi-colour LED



IP69K

OVERVIEW:

The stainless steel Emergency Stop ESL-SS-WR is the latest addition to our hygienic product line. Designed specifically for stringent wash-down environments in the food, beverage, and pharmaceutical industries, this model meets the highest standards for hygiene and durability.

Constructed from 316-grade stainless steel with a mirror-polished finish, the ESL-SS-WR is easy to clean and completely non-absorbent, ensuring that a simple surface cleaning effectively removes all bacteria and germs. Its IP69K rating certifies its resistance to high-pressure, high-temperature wash-downs, making it suitable for use in strict hygienic environments.

Furthermore, the ESL-SS-WR is engineered to resist external factors such as dents and scratches, which could threaten its hygienic integrity. This ensures a sealed and protected surface, maintaining its sanitary condition even in the most demanding applications.

- Stainless Steel 316 (IP69K) can be high pressure hosed with detergents at high temperature.
- Conformance to ISO13850, EN60947-5-1 and EN60947-5-5.
- Optional 2-colour LED.
- X-Ray and Metal detectable button material.
- Flat head screws for reducing potential food-traps.

APPLICATION:

Emergency Stop Switches are mounted on machines and sections of plant conveyors that cannot be protected by guards.

In combination with any dual channel safety monitoring controllers these switches can be used as emergency stop devices and monitored for up to Category 4/PLe to ISO13849-1.

OPERATION:

All Emergency Stop Switches conform to European Standard EN ISO 13850 and IEC 60947-5-5. They have a positive mechanical linkage between the switch contacts and the E-Stop Button.

The switches are mechanically latched and can then only be returned to the operational condition by twisting the button as required by EN ISO 13850 and IEC 60947-5-5.



Installation on a conveyor in a food manufacturing facility.



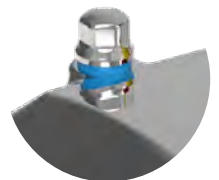
Suitable for use in Hygienic Design Zones

These are areas where equipment regularly and predictably comes in contact with food as it being produced. Food conveyors, mixers, nozzles and cooking surfaces are examples of Hygienic Design environments.



The button is designed using a special material that is both **metal and x-ray detectable**, for use in modern food production environments. Should the button be damaged and end up on the production line, it will be detected before entering the supply chain.

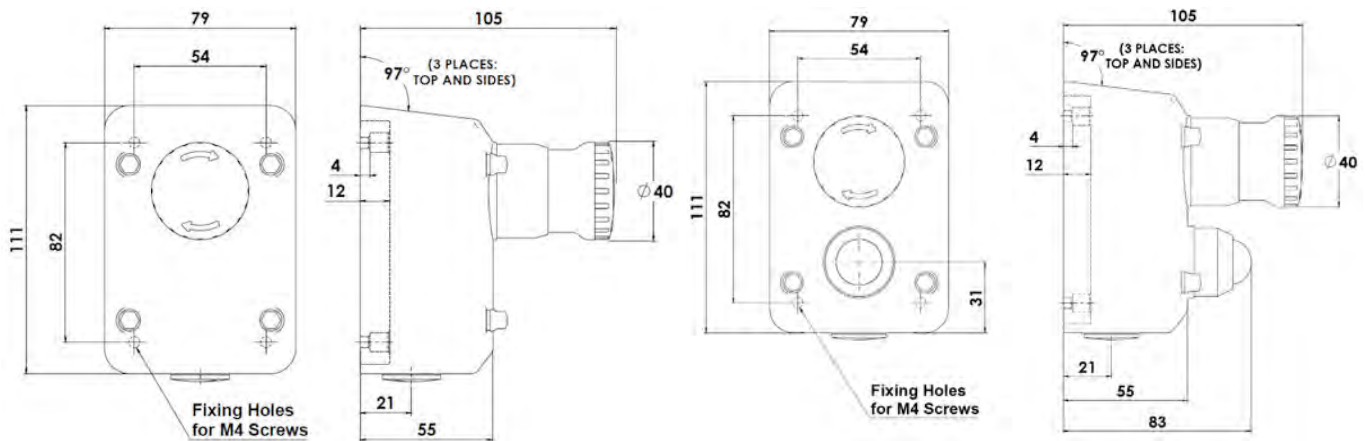
Flat screw heads removes the potential of a food trap within the "drive" section. The smooth surface area is easier to clean with rounded edges and sloped sides.



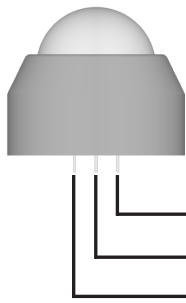
The ESL-SS-WR is comprised of **mirror polished 316 stainless steel** and combines the lid and body into a single part. This reduces the likelihood of food traps in the seam and the **10-degree angled surface** ensures no liquid remains on the product at any time.

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DIMENSIONS:



LED INDICATION:



Internal Wiring for LED

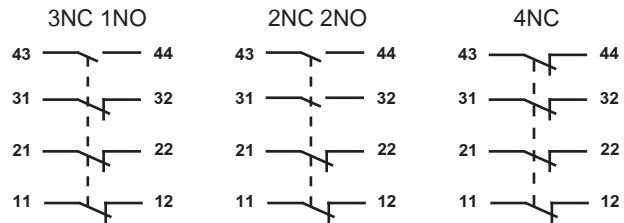
Black
Green
Red

Black (or Terminal 2) is 0V (or Neutral for 110V and 230V ac versions).
When power is applied to the Red wire (or Terminal 1), the LED will illuminate Red.
When power is applied to the Green wire (or Terminal 3), the LED will illuminate Green.

GREEN ON	Run
RED ON	Stopped

INTERNAL CONTACTS:

NC - Machine able to run



TECHNICAL SPECIFICATION:

Standards	
IEC 60947-5-5 UL 60947-5-1 EN ISO 13850	
Technical Data	
Case Material	Stainless Steel 316
Safety Contact type	IEC 60947-5-1 Double break Type Zb
Contact Material	Silver
Termination	Clamp up to 2.5 sq. mm conductors
Rating	Utilisation Category : AC15
Operational Rating	AC15 A300 240V. 3A /120V 6A. ac
Thermal Current (Ith)Voltage	10A.
Rated Insulation Voltage (Ui)	500V.
Withstand Voltage (Uimp)	2500V
Short Circuit Overload Protection	Fuse Externally 10A. (FF)
Operating Temperature	-25C / 80C
Enclosure Protection	IP69K Stainless Steel (NEMA 6)

ORDERING:

TYPE: ESL-SS-WR (Stainless Steel 316)

SALES NUMBER	TYPE	CONDUIT ENTRY	CONTACTS
239001	ESL-SS-WR	M20	2NC 2NO
239002	ESL-SS-WR	1/2"NPT	2NC 2NO
239003	ESL-SS-WR	M20	3NC 1NO
239004	ESL-SS-WR	1/2"NPT	3NC 1NO
239005	ESL-SS-WR	M20	4NC
239006	ESL-SS-WR	1/2"NPT	4NC

TYPE: ESL-SSL-WR with LED (Stainless Steel 316)

SALES NUMBER	TYPE	CONDUIT ENTRY	CONTACTS
239017	ESL-SSL-WR	M20	2NC 2NO
239018	ESL-SSL-WR	1/2"NPT	2NC 2NO
239019	ESL-SSL-WR	M20	3NC 1NO
239020	ESL-SSL-WR	1/2"NPT	3NC 1NO
239021	ESL-SSL-WR	M20	4NC
239022	ESL-SSL-WR	1/2"NPT	4NC

Add Voltage Code to Sales Number

Steady Green/Flashing Red
A - 24Vdc B - 110Vac C - 230Vac

Steady Green/Steady Red
AS - 24Vdc BS - 110Vac CS - 230Vac

IDEM recommend their Stainless Steel spacer kit and rubber mounting seal for improved hygiene. This accessory allows for easy cleaning behind the ESL-SS-WR.

SALES NUMBER	TYPE
239301	S/Steel Spacer Kit
239300	Rear Rubber Seal



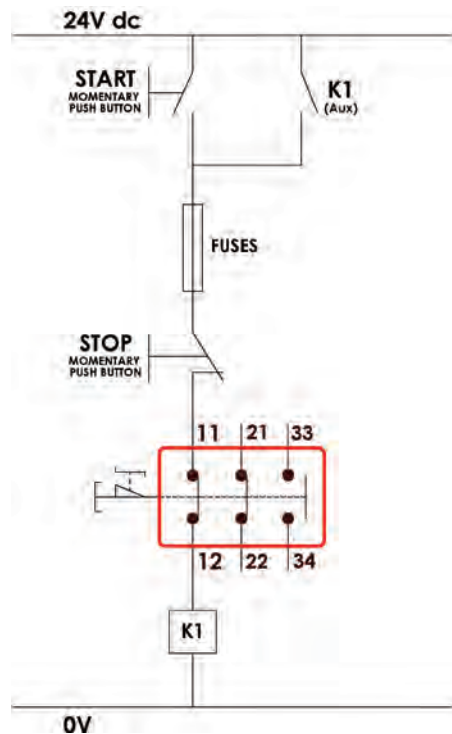
IDEM recommend their Stainless Steel 316 Gland with this switch.



S/STEEL 316 GLAND	SALES NUMBER
M20	140120
1/2" NPT	140121

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.

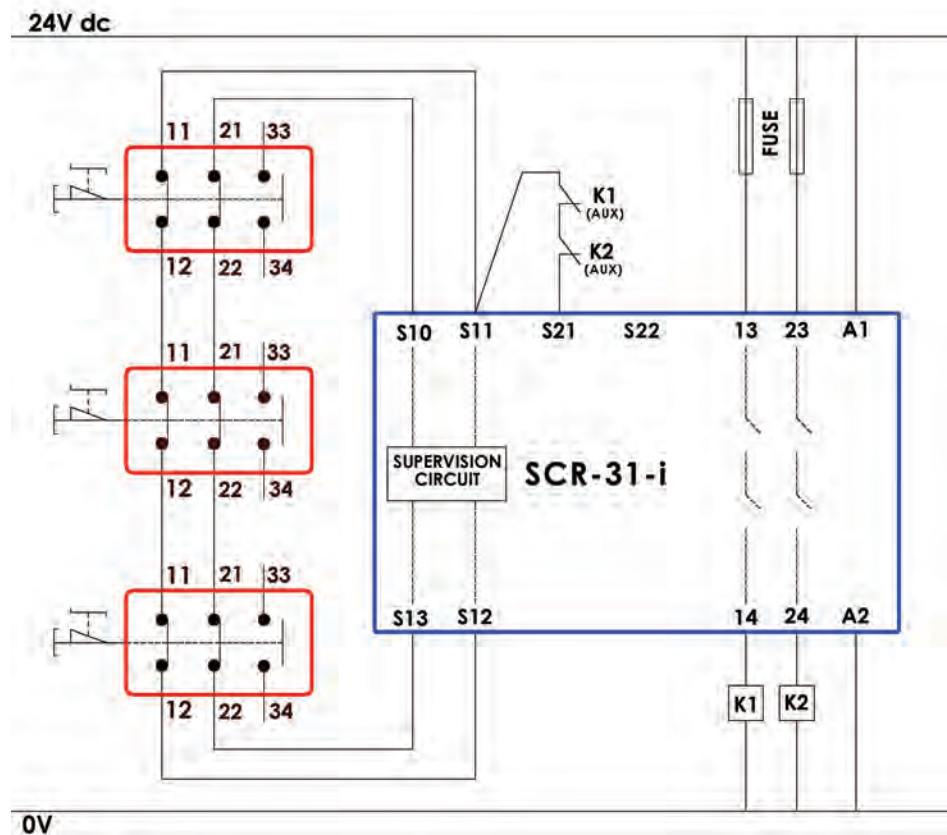
Pressing the Start button will cause the machine contactor K1 to close and latch via its own auxiliary contacts (K1 (Aux)).

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.

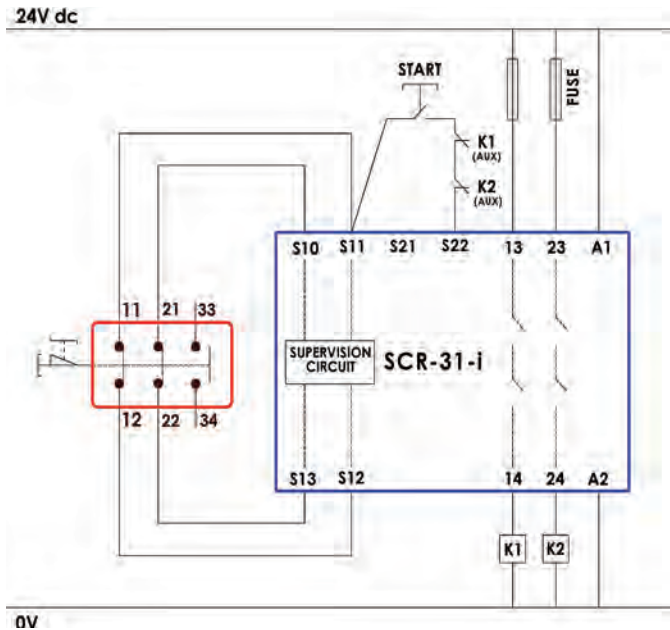
Generally used on machines with a medium risk. Activating any E Stop Switch will open the outputs from contactors K1 and K2 and stop the machine. The E Stop switch will latch. Re-setting the E Stop switch will enable the machine contactors K1 and K2 to close providing the feedback circuit check from 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.

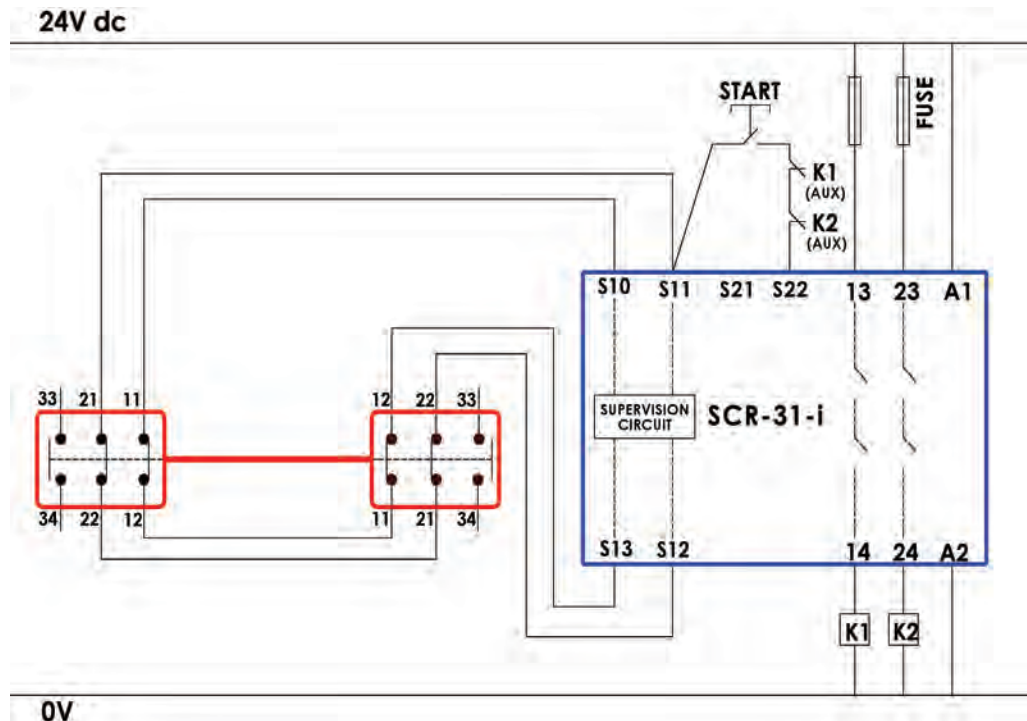
Activating the E Stop Switch will open contactors K1 and K2 and stop the machine.

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