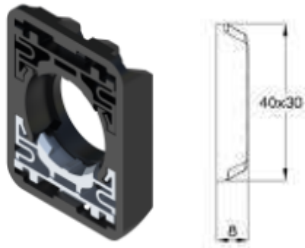




Components

ECX 4029 support base



Micro switches

ECX 1030N (NC – Positive opening operating)
ECX 1040N (NO – Not intended for safety use)



The number, type and configuration depend on the chosen E-Stop variant

Emergency button → ECX 4580 – With latching, twist to release



Quick-disconnect M12 connection

The E-STOP can be configured with a 5-pole connector or an 8-pole connector according to the contacts inside

Maintenance

	Weekly	Every 6 month
Check correct operation of the control circuits and latching mechanism. Inspect for damage to the E Stop button or casing.	X	
Isolate power and remove cover. Check screw terminal tightness and check for signs of moisture ingress. Never attempt to repair any switch.		X

Device fixing

The device must be installed in an environment suitable for the declared IP protection degree.
Installation must only be carried out by competent personnel and in accordance with these instructions.

Operation

All the 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 a pressing the reset button as required by EN ISO 13850 and IEC 60947-5-5.

TECHNICAL DATA

Reference Directives	LVD 2014/35/UE Machinery 2006/42/CE RoHS 2002/95/EU and amendments
Reference Standards	CEI EN 60647-5-1 CEI EN 60647-5-5 EN ISO 13850 IEC 60536 IEC 60947-1 IEC 60947-5-1 IEC 60947-5-5 IEC 60947-1 UL 508
Approvals	CB according to EN 60947-5-5 cULus NSID emergency stop
Operator head shape	Circular (30mm diameter)
Base and head material (Operator)	Thermoplastic reinforced with fiberglass
Enclosure material	Shock resistant ABS
Reset of the operator	Rotate to unlock
Type of contacts	Electromechanical contacts NC contacts with positive opening
Protection class against electric shock	Class II
Electrical values:	
With M12 5-pole connector	
• insulation voltage U_i	125Vac/dc
• impulse voltage U_{imp}	1.5kV
• operating voltage U_e	24Vdc
• operating current I_e	4A
With M12 8-pole connector	
• insulation voltage U_i	30Vac/dc
• impulse voltage U_{imp}	0.8kV
• operating voltage U_e	24Vdc
• operating current I_e	2A
Short circuit protection fuse gG / GI	4A (5 poles versions) – 2A (8 poles versions)
Storage temperature	-40°.....+70°C
Operating temperature	-40°.....+70°C
IP protection degree	IP65
Vibration resistance and shock	According to EN 60947-5-5
PL	Up to PLe (ECS113 – ECS114 – ECS115) Up to PLd (ECS111 – ECS112 – ECS116)
SIL	Up to SIL3 (ECS113 – ECS114 – ECS115) Up to SIL2 (ECS111 – ECS112 – ECS116)
CAT	Up to CAT4 (ECS113 – ECS114 – ECS115) Up to CAT2 (ECS111 – ECS112 – ECS116)
Mechanical durability	300.000 operations
B10d	600.000 operations

Additional installation precautions

Periodically check the correct operation of the device as specified in the maintenance section - Installation must be carried out only by authorized and qualified personnel - Use of the device must be limited to applications that comply with regulatory requirements - Installation of the device must be carried out only by people who are familiar with the regulatory references - The installation of the device must be carried out in accordance with current regulations - In case of doubts or special applications, contact COMPEPI technical assistance - Attach this document to the technical file and to the operating instructions of the machine on which the device is installed - Always make this document available to personnel working on the machine on which the device is installed - Before any painting work, cover the terminals - Do not install in the presence of strong vibrations; Impacts and vibrations can in fact preclude the correct operation of the circuit-breaker - Do not modify the device in its constitution - Do not disassemble and reassemble the device - Replace the device after exceeding the limit of mechanical durability - Disconnect the device power supply before installing/replace the equipment - Use only the specified voltage to power the device - The device at the end of its life must be properly disposed of, according to the regulations of the country in which the disposal is carried out.

Before working with electrical equipment, disconnect the power supply and prevent it from being reconnected. Wear suitable protective equipment.

Limits of use

Use the device in full compliance with current regulations, following the instructions and using it in compliance with its operating limits. In the event of non-compliant use, non-compliance with the instructions, assembly and maintenance carried out by unauthorized or non-specialized people and omission of the functional tests, the manufacturer is excluded from any responsibility. Do not install in environments where flammable dust or gas is present. Do not use outside the temperature limits foreseen for operation. Do not use in the presence of particularly corrosive chemical agents, because that can damage the seals of the device.

Note

Emergency stop devices must offer backup solutions to other protective measures and not replace them - The emergency stop function is a complementary protection measure and should not be applied in place of protection measures and other safety functions or functions - The purpose of the emergency stop function is to avoid actual emergency situations resulting from human behavior or an unexpected dangerous event - The control width of each emergency stop device must cover the whole machine. As an exception, a single command amplitude may not be appropriate when, for example, stopping all connected machinery could generate additional hazards or unnecessarily affect production. Each command amplitude can affect one or more sections of a machine, an entire machine or a group of machines - The emergency stop function cannot be considered as a prevention measure of an unexpected start as described in ISO 12100 - The actuator of the emergency stop device must be RED. If there is a background behind the actuator it must be YELLOW – Use only approved and compatible female cables to connect the device.

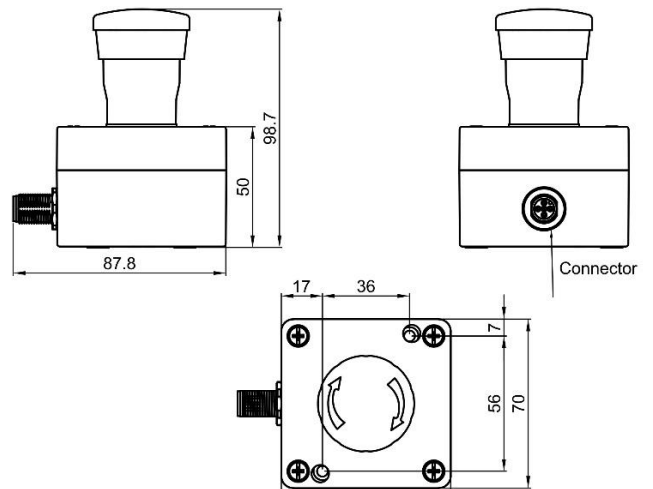
Wiring



Attention: check that the supply voltage is correct before powering the device.

- Keep the charge within the values specified in the electrical operation categories
- Connect and disconnect the device only when the power is off
- Do not open the internal device cover under any circumstances
- Always connect the protection fuse (or equivalent device) in series to the safety electrical contacts
- Always connect the protection fuse (or equivalent device) in series with the power supply for each device (see paragraph ELECTRICAL DATA)
- E-Stop can be configured during the purchase phase with a 5-pole connector or an 8-pole connector, depending on the type of contacts chosen

Dimensions



Type Connection

Model	Connector Type	Pin Connection
ECS111	M12 5-pole 	
ECS112	M12 5-pole 	
ECS113	M12 5-pole 	
ECS114	M12 5-pole 	
ECS115	M12 8-pole 	
ECS116	M12 8-pole 	