

Series

61

Emergency stop switch compact.

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Compact, robust, reliable. *EAO offers intuitive safety controls for a wide variety of applications: the UL-certified, robust and IP69K sealed Series 61 emergency stop switch compact (E-Stop).*

EAO, the expert partner for innovative, intuitive and reliable Human Machine Interfaces (HMIs), offers critical safety controls which are uniquely compact, robust and reliable. The Series 61 compact emergency stop switch is especially suited for handheld control units, or can be mounted, within easy reach or directly onto a machine. The switch reliably protects people and equipment against injury and damage.

Control panel design for equipment, devices and machinery provides many challenges to manufacturers. They need to produce easy to use, intuitive controls that are both compact and also capable of withstanding harsh industrial use. Depending on the application, they may need to protect the controls from attack by chemicals, from dirt ingress or cleaning by high pressure water jets.

The Series 61 E-Stop compact satisfies the needs of use, through rigorous material selection and a robust build quality that meets IP69K, the highest degree of protection against dirt and dust ingress.

The product complies with the latest international standards. The robust mono-block design has a fool proof, trigger action mechanism to break the electrical contacts, and a green indication ring to show whether the switch is actuated. Here, the mechanically decoupled triggering of the switching elements should be highlighted in particular. The optional high brightness central LED makes the product clearly visible, even in low light levels.

Each switch can have up to three individual normally open (NO) or normally closed (NC) switch contacts, a 27 mm or 40 mm diameter lens and optional 24VDC LED illumination – all within a compact 21.2mm back panel depth.

In short, the Series 61 E-Stop compact is a robust, reliable, low back panel depth switch – ideal for use in space critical applications.

Typical applications

- Handheld control units
- Production and plant machinery
- Construction machinery
- Agricultural machinery and vehicles
- Special vehicles

Materials

The materials used comply with the high EAO standards relating to quality, functional safety, lifetime and ergonomic design. They are resistant to cleaning agents and also to UV radiation.

Mechanical characteristics

- Tightening torque for fixing nut max. 0.8Nm
- Actuating force 30N ± 4 N
- Mounting cut-out 16.2mm
- Terminal: Plug-in terminal 2.8mm x 0.5mm (solderable, without UL-certification)
- Mechanical/electrical service life ≥ 20000 switching cycles

Electrical characteristics

- Rated operating voltage U_n 50VAC/DC
- Switched current max. 0.2A
- Minimum operating data
 - Voltage 1VAC/DC
 - Current 1mA

Ambient conditions

- Temperatures
 - Storage temperature –40°C to +85°C
 - Operating temperature –25°C to +55°C
- Shock resistance (semi-sinusoidal)
max. 150m/s², pulse width 11ms, 3-axis
- Vibration resistance (sinusoidal)
max. 100m/s², at 10Hz to 500Hz, 20 cycles, 3-axis
- Climate resistance
 - Humid heat, state, 56 days, +40°C/93% relative humidity
 - Dry heat, 96 hours, +55°C
 - Cold, 96 hours, –25°C

Degree of protection

- IP66, IP67 and IP69K front side
- IP40 rear side

Advantages.

- Very low back panel depth (21.2 mm)
- High front protections IP66, IP67 and IP69K
- Robust mono-block design with mechanically decoupled triggering
- Optional illumination
- Up to three switching elements

Colours

- Lens: red
- Actuator housing: yellow
- Position indication ring: green
- Illumination: red

Declarations of conformity

- CE
- EN 60947-1
- EN 60947-5-1
- EN 60947-5-5

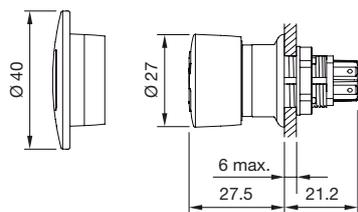
Approvals

- CB (EN 60947)
- UL NISD Listed (E341760)

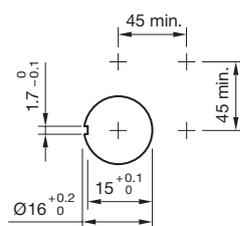
Mounting

The E-Stop is front panel mounted with a rear mounted anti-rotation ring and a threaded fixing nut. In addition, it is also prevented from rotating by the anti-rotation lug in the mounting cut-out. The panel mounting is easy to perform without special tools. The electrical connections are made via the UL-specified, partially insulated plug-in terminal connections on the rear contact block.

Dimensions



Mounting cut-out



All dimensions in mm.

Variants

- Front dimensions Ø 27 mm, with illumination, max. two switching elements



- Front dimensions Ø 27 mm, without illumination, max. three switching elements



- Front dimensions Ø 40 mm, without illumination, max. three switching elements



Accessories.



Mounting adapter

Series 61

Quick and easy mounting for Ø 22.3 mm mounting cut-outs.

The Series 61 mounting adapter allows the 16.2 mm diameter emergency stop switch compact to also be used for standard mounting cut-outs of 22.3 mm diameter (as per DIN EN 60947-5-1).

The adapter allows the device to be mounted to the front plate quickly and safely. It protects the switch against twisting once mounted. This accessory can be combined with the Series 61 PCB adapter.

Advantages of the mounting adapter

- E-Stop compact even for 22.3 mm diameter applications
- Quick and safe to mount
- Provides anti-rotation protection to meet the needs of current industry requirements
- Very low back panel depth

PCB adapter

Series 61

For flexible and safe PCB assembly.

This PCB adapter enables the advantages of the Series 61 emergency stop switch compact to be combined with those of a constructed printed circuit board. As a solid connection, the PCB plug-in base can be quickly and easily mated between the emergency stop switch and the PCB.

This method of assembly reduces the back panel depth to a minimum (26 mm) and allows wiring errors to be prevented. The PCB adapter is especially well-suited for use in space restrictive applications.

Advantages of the PCB adapter

- Simple, flexible and quick to mount
- Prevents wiring errors
- Very low back panel depth
- Easy separation for maintenance purposes

Diversity and individuality. *In HMI Components.*

EAO develops and manufactures one of the world's largest ranges of industrial HMI products.

A variety of mounting depths, design and combination of options make our products hugely versatile. But what makes every EAO component really stand out are the cutting-edge materials, innovative technologies, and complete user-friendly interfaces. We also modify our standard components individually in accordance with our customers' needs.

Designers can simplify their search for the perfect products by analysing their exact application requirements and, based on their needs, determine the characteristics of the required components.

Because EAO offers one of the most comprehensive ranges of products, it is easy for everyone to select the right fit, according to:

- Electrical ratings – the right specifications for the task
- Actuation preferences – the most appropriate switch type
- Physical configuration and mounting needs – style and placement
- Special requirements – illumination and symbols
- International and market approvals

HMI functions

Some of the HMI functions that EAO offers are:

- Illuminated pushbuttons
- Mushroom-head pushbuttons
- Selector switches
- Keylock switches and key-insert switches
- Indicators
- Buzzers
- Potentiometers
- E-Stops and stop switches
- Door opening pushbuttons
- And many more

HMI features

EAO's engineers analyse the application requirements of our customers. This ensures that our HMI Components always perform to the correct standard for:

- Front protection
- Switch rating
- Mounting cut-out
- Terminal
- Certification
- Design
- Ergonomics
- Materials

Value Added Services

EAO makes it simple for designers to find the perfect equipment by analysing customers' exact application requirements and making the following adaptations to suit their needs:

- Marking
- Illumination
- Enhanced mechanical design
- Enhanced electronic design
- Software
- Cables and connections
- Assembled products/kits

Expert manufacturers.

EAO creates possibilities since 1947.



Founding year: 1947

Number of employees: 600

Headquarters: Olten, Switzerland

Manufacturing Companies: Switzerland,

Germany, North America, China

Sales Companies: 10

Distribution countries: 50

Core markets: Transportation, Automotive,
Heavy Duty & Special Vehicles, Machinery

EAO AG, a Swiss, family-owned company founded in 1947, has developed into one of the world's leading manufacturers of high-quality industrial switches, complete custom HMI panels and interface systems, and specialised automotive switch systems.

Efficient and modern development processes, effective global supply chains and skilled project and consultation management represent additional services that we offer our customers and business partners around the world.

Your solution-focused expert and partner

We do much more than just manufacture individual control elements. As a solution-focused partner, we provide the option of technically and mechanically customizing existing HMI Components in line with our customers' individual requirements. From simple control elements through to sophisticated HMI Systems, from serial production through to installation – we offer the entire range of HMI services and inspire the confidence of our customers.

Visit our website.

EAO.COM

EAO, the expert partner for Human Machine Interfaces (HMIs), offers a variety of innovative, intuitive and reliable HMI Products and Services.

Online product configurator

Build your tailored product in the online product configuration system and obtain technical specifications and 3D data at the same time. The right HMI for you, step by step: eao.com/products

EAO downloads

Find more extensive documents such as catalogues, data sheets, certificates and brochures to read and use for research: eao.com/downloads

Related documents

Find out more about our innovative, intuitive and reliable HMI Products and Solutions.



Series 45
Brochure



Series 61
Brochure



Series 71
Brochure



Series 84
Brochure

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