

Series

82

Robust and attractive.

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Series 82

Robust and attractive.

With Series 82, EAO offers the optimal pushbutton for vandal-resistant, stylish HMI controls *used in harsh industrial environments, public areas and building management.*

EAO, the expert and partner for Human Machine Interfaces (HMIs), offers pushbuttons that are both resistant to vandalism and visually attractive in the form of the Series 82, for use in harsh environments.

With their robust stainless steel, brass or anodised aluminium housings, these innovatively designed switches are protected to IK10 impact resistance and IP67 sealing requirements, which makes them ideal for use in exposed public buildings and areas.

The switches are available with momentary or maintained action, and with or without LED illumination, choose from single or bi-colour LED's and central dot or ring illumination. The ring illumination is particularly striking and attractive.

The switching elements are offered either with silver alloyed or in addition gold-plated contacts for reliably switching low voltages and currents.

Typical applications

- Exposed public areas
e.g. ticketing and vending machines
- Industrial
Machinery and factory equipment
- Lifting and moving
Elevators and people movers
- Building management
Access control and security systems
- Audio and video equipment
- Medical equipment

Laser Markings

Using a CO² laser it is possible to engrave practically any symbol or text in any language onto the stainless steel versions of the Series 82 products.

Laser markings are highly resilient, do not fade and last for an extraordinarily long time – ideal conditions for these vandal resistant indicators, pushbuttons and illuminated pushbuttons.

Standard symbols

Various standard symbols are available.
Here are a number of examples:

On/Off	Standby	Info
		
Light	Bell	Door open
		

Advantages.

- Vandal-resistant: Impact resistant to IK10, front protection up to IP67
- Gold-plated silver contacts available for low voltages and currents
- Optional single or bi-colour LED illumination and laser markings
- Excellent tactile feedback
- Long service life: > 1 million cycles of operation

Materials

- Stainless steel SUS 304
- Stainless steel chrome coloured
- Brass gold coloured
- Aluminium (natural anodised), other colours on request

Mechanical characteristics

- Mechanical lifetime: > 1 million cycles of operation
- Actuation force: 4 N to 7 N
- Terminals: Soldering/plug-in terminals 2.8 x 0.5 mm or screw terminal

Operating data switching element*

Silver Contacts

	Minimum Values	Maximum Values
Voltage	17 VAC/DC	240 V
Current	50 mA AC/DC	3 A

Gold plated Silver Contacts

	Minimum Values	Maximum Values
Voltage	1 VAC/DC	24 V
Current	5 mA AC/DC	200 mA

* according to DIN EN 60947-5-4, methods of assessing the performance of low-voltage contacts.

For specifications of the minimal switching capacity see details in the online catalogue.

Switching system

- Switching element: Snap-action switching element
- Contact arrangement: NO/NC contact (changeover)
- Switching action: Momentary or maintained
- Contact materials: Silver alloy or gold-plated silver alloy

Switching element

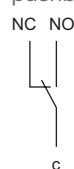
- Contact resistance: $\leq 50 \text{ m}\Omega$, according to IEC 60512-2
- Isolation resistance: > 1000 M Ω , according to IEC 60512-3
- Dielectric strength: 1500 VAC, according to IEC 60947-5

Wiring diagram

Pushbutton



Illuminated pushbutton



Indicator



Properties and illuminations.

Electrical characteristics

- Rated insulation voltage 250 VAC
- Conventional thermal current:
 I_{TH} 5 A, according to CB
- Electrical life: > 50 000 cycles (full load)
- Switching capacity: AC-15 ($\cos\varphi 0.3$) and DC-13 (according to IEC 60947-5-1)

	24 V	110 V	220 V
AC-15	1.0 A	1.0 A	0.5 A
DC-13	0.7 A	0.2 A	0.1 A

Ambient conditions

- Temperature
 - Storage temperature -40°C to $+80^{\circ}\text{C}$
 - Operating temperature -30°C to $+70^{\circ}\text{C}$
- Operating humidity: 45 % to 85 % RH (no condensation)
- Front protection:
IP65, IP67, according to IEC 60529
- Impact resistance:
IK10, according to IEC 62262
- Approvals: CE, CB, UL, C UL, CCC

LED illumination

- Red
- Green
- Yellow
- Blue
- White
- Red/green bi-colour

LED, series resistor and polarity protection are built in.

Single LED

Voltage	Tolerance	Current
6 VAC/DC	$\pm 10\%$	7 mA
12 VAC/DC	$\pm 10\%$	7 mA
24 VAC/DC	$\pm 10\%$	7 mA
110 VAC	$\pm 10\%$	2 mA
230 VAC	$\pm 10\%$	1.5 mA

Bi-colour LED

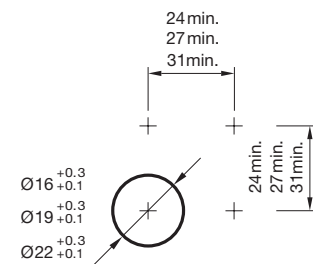
Voltage	Tolerance	Current
24 VDC	$\pm 10\%$	7 mA/7 mA



Dimensions, mounting and terminals.

Mounting cut-outs

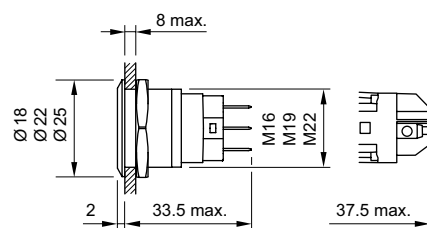
Ø 16 mm, Ø 19 mm, Ø 22 mm



Dimensions

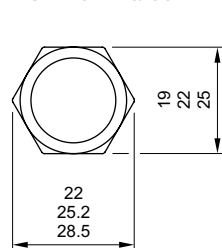
Side view

Solder/plug-in terminal | Screw terminal

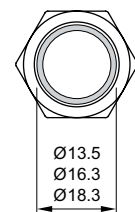


Front view

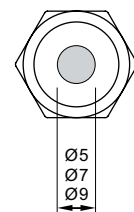
Non-illuminated



Ring illuminated

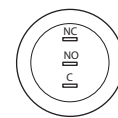


Central dot illuminated

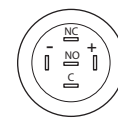


Solder/plug-in terminal

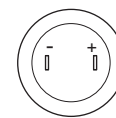
Pushbutton



Illuminated pushbutton

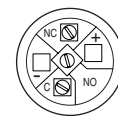


Indicator lamps

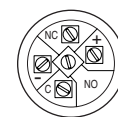


Screw terminal

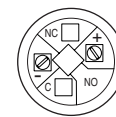
Pushbutton



Illuminated pushbutton



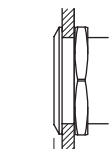
Indicator



Front ring | Lens | Illumination

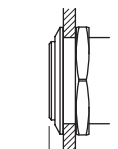
flat/flush

ring/dot



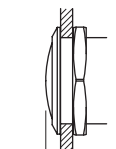
flat/raised

ring



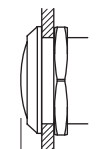
flat/convex

ring



raised/convex

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Reliable assembly. Short delivery times.

Thanks to our international production sites and our global delivery and support centres, we offer you efficient, sustainable logistics and can optimise your supply chain.

- Qualified vendors worldwide
- Consistent multi-location processes
- Integrated quality measures throughout the supply chain

With four value-creating partners in Europe, Asia and North America, as well as other strong partnerships around the world, we are able to offer the following:

To us, speedy assembly, short delivery times and secure processing are all part of good customer service.

Part number system

Series	-	Diameter		Material		Bezel/Lens		Connection/SE Contacts		.	Switching action		Illumination		LED colour		LED voltage		.	Laser Engraving	
82		4	16mm	1	Stainless steel	5	flush/flat	1	Solder/Silver		0	Indicator	0	no LED	0	no LED	0	no LED		B001	On/Off
		5	19mm	2	Chrome colour	6	flush/raised flat	2	Srew/Silver		1	Momentary	1	Ring	1	red	2	6VAC/DC		B002	Stand By
		6	22mm	3	Gold colour	7	flush/convex	3	Solder/Gold plated		2	Maintained	2	Dot	2	blue	3	12VAC/DC		B003	Light
				5	Aluminium natural anodized	8	raised/convex	4	Screw/Gold plated						3	green	4	24VAC/DC		B004	Information
															4	yellow	5	110VAC		B005	Bell
															5	white	6	230VAC		B006	Door open
															A	red/green bi-colour				BXXX	Any other symbol

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.

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Your centre of excellence.

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Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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