

Series
82
Attractively tough.



Series 82

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With the Series 82, EAO offers the optimal pushbutton for vandal resistant, attractive HMI controls used in harsh industrial environments, rugged commercial applications, and public use areas.

EAO, the expert partner for Human Machine Interfaces (HMIs), offers the attractively designed, sealed, and vandal resistant Series 82 pushbuttons that are ideal for use in harsh environments.

With durable stainless steel, brass, or anodized aluminum housings, these innovatively designed switches are protected to a level of IK10 impact resistance and IP67 sealing requirements – thus making them ideal for use in machinery and packaging equipment, industrial automation, specialty vehicles, and public use applications including access control, help kiosks, and emergency call boxes.

The switches are available with momentary or maintained action and with or without LED illumination. If illuminated, choose from visually appealing central dot or ring variations.

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

Typical applications

- Exposed public areas
Ticketing and vending machines
- Industrial automation
Machinery, packaging and factory equipment
- Lifting and moving
Elevators and people movers
- Access control
Security and intercom systems
- Audio and video equipment
- Medical equipment

Laser Markings







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

Laser markings are precise, highly resilient, do not fade, and last for an extraordinarily long time – ideal conditions for the applications and environments these vandal resistant indicators, pushbuttons and illuminated pushbuttons are often found within.

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 IP65 and IP67
- Gold-plated silver contacts available for low voltage and current applications
- Optional single or bi-color LED illumination and laser markings
- Excellent tactile feedback
- Long service life: > 1 million cycles of operation

Materials

- Stainless steel SUS 304
- Stainless steel chrome colored
- Brass gold colored
- Aluminium (natural anodised), other colors 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.

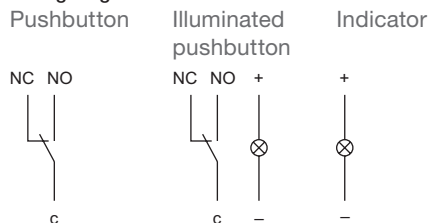
Switching system

- 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: $> 1000 \text{ M}\Omega$, according to IEC 60512-3
- Dielectric strength: 1500 VAC, according to IEC 60947-5

Wiring diagram



Properties and illuminations.

Electrical characteristics

- Rated insulation voltage 250 VAC
- Conventional thermal current:
I_{TH} 5A, according to CB
- Electrical life: > 50000 cycles (full load)
- Switching capacity: AC-15 (cosφ0.3) and DC-13 (according to IEC 60947-5-1)

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

Ambient conditions

- Temperature
 - Storage temperature –40 °C to +80 °C
 - Operating temperature –30 °C to +70 °C
- Operating humidity: 45 % to 85 % RH (no condensation)
- Front protection:
IP65, IP67, according 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-color

LED, series resistor and polarity protection are built in.

Single LED

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

Bi-color LED

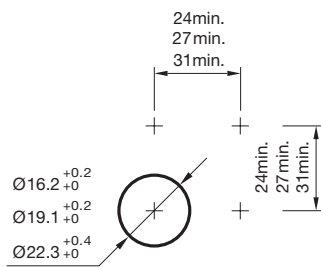
Voltage	Tolerance	Current
24 VDC	± 10 %	7 mA/7 mA



Dimensions, mounting and terminals.

Mounting cut-outs

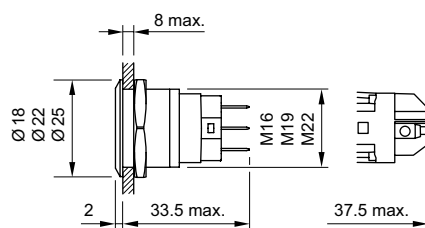
Ø 16 mm, Ø 19 mm, Ø 22 mm



Dimensions

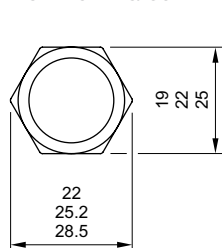
Side view

Solder/plug-in terminal | Screw terminal

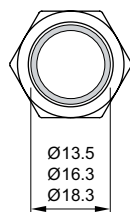


Front view

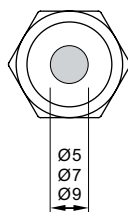
Non-illuminated



Ring illuminated

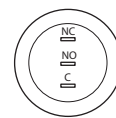


Central dot illuminated

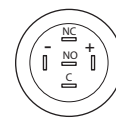


Solder/plug-in terminal

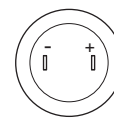
Pushbutton



Illuminated pushbutton

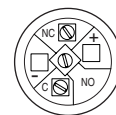


Indicator lamps

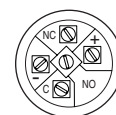


Screw terminal

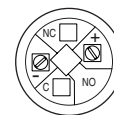
Pushbutton



Illuminated pushbutton



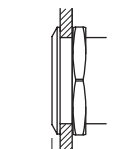
Indicator



Front ring | Lens | Illumination

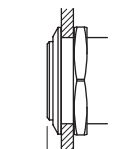
flat/flush

ring/dot



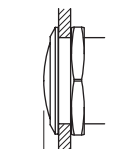
flat/raised

ring



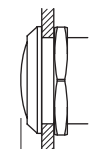
flat/convex

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

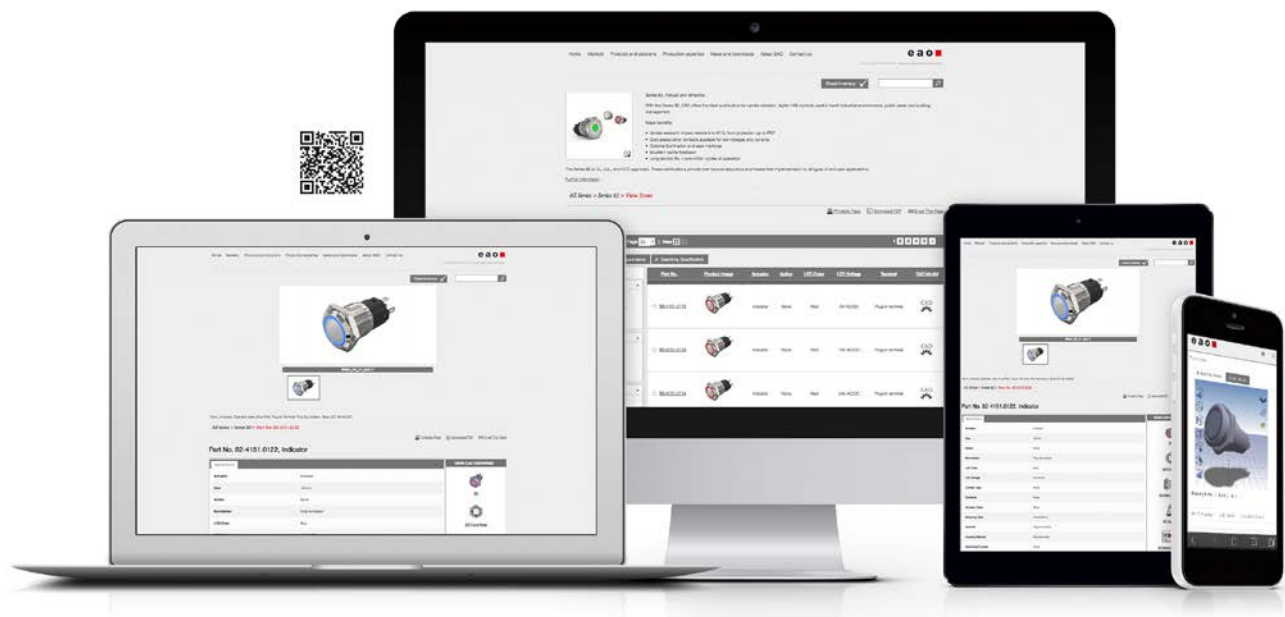
With four value-creating partners in Europe, Asia and North America, as well as other strong partnerships around the world, we are able to offer the following:

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 color		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 color	6	flush/raised flat	2	Srew/Silver	1	Momentary	1	Ring	1	red	2	6VAC/DC	B002	Stand By
	6	22mm	3	Gold color	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-color			BXXX	Any other symbol	

Complete Product Selector of Series 82



EAO simplifies the customer experience.

EAO proudly announces its Complete Product Selector which has been designed to “simplify the customer experience” and provide 24/7 access to the Series 82 product line.

- Easy part number selection
- New globally recognized “complete part number” system
- Interactive 3-D viewer and library of online tools
- Immediate access to available inventory and outlets

Customers will have an immediate and efficient connection to a library of complete part numbers that will allow them to dynamically search pre-configured kits. Utilizing an “Omni-channel” approach, users will experience an identical experience on both the desktop and mobile website.

Related documents

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

Machinery Brochure	Series 45 Main catalogue	Series 61 Brochure	Series 71 Brochure	Series 84 Brochure
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