

Series

57

Door opening pushbutton.

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Series 57

Door opening pushbutton.

For maximum safety in public transportation, all controls need to be intuitive and reliable. *EAO extends its successful Series 57 with a new glass-mounted door opening pushbutton.*

EAO, the pioneer of illuminated pushbuttons and expert partner for innovative, intuitive and reliable Human Machine Interfaces (HMIs), continues to set the standard with the new Series 57 door opening pushbuttons for public transport.

Whether front-mounted on doors, flush rear-mounted on the sidewalls or glass-mounted (single or double side), the Series 57 door opening pushbutton range has a stylish passenger door control for all applications. And all this in a coherent look and feel.

User-friendly features include the extra-large Ø74 mm operating area and two independently illuminated feedback rings that fully comply with EN 14752. The additional user benefits of the raised symbols (conform to TSI PRM & ADA) and the optional finding tone for visually impaired people make this unique “all-in-one” door opening pushbutton the best in class. Furthermore, the optical, tactile and acoustic feedback is unbeatable.

Typical applications

- Public transport: rail vehicles and buses
- Building access: electrical doors and lifts

Materials

The materials used meet EAO's stringent standards of quality, functional reliability, service life and design. They are resistant against aggressive cleaning chemicals and UV exposure.

Tailored consulting services

EAO offers tailored consulting services to interested customers for the extensive Series 57 range to enable optimum product selection in line with required specifications.

Mechanical characteristics

- Cable, 4-wire with core-end sleeves for the standard version (wire cross-section 0.5 mm² or 0.24 mm²)
- Cable, 6-wire with core-end sleeves for the version with finding tone (wire cross-section 0.5 mm² or 0.24 mm²)
- Cable length: 200 mm; 1 000 mm; 2 000 mm (other lengths on request)
- Mechanical lifetime: 2 million operations
- Resistant to impact shocks and vibrations
- Plug connector on request
- Actuating force: < 15 N

Electrical characteristics

- Operating voltage
 - 16 to 63 VDC (min./max.)
 - 50 to 143 VDC (min./max.)

Closed circuit current

- 16 to 63 VDC without tone: < 2 mA @ 24 VDC
- 50 to 143 VDC without tone: < 2 mA @ 110 VDC
- 16 to 63 VDC with tone: < 10 mA @ 24 VDC
- 50 to 143 VDC with tone: < 4 mA @ 110 VDC

Illumination

- Green LED for outer ring
- Red LED for inner ring

Switching element

- Electronic high-side switch

Finding tone (optional)

- 65 dB @ 10 cm @ 1 kHz (other sound levels on request)
- Sound frequencies according to B&S/S&V

Ambient conditions

- Temperature
 - Storage temperature –45 °C to +90 °C
 - Operating temperature –40 °C to +85 °C

Degree of protection

- IP69K front protection
- IP67 rear protection

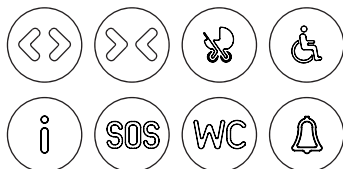
Advantages.

- Extra-large Ø 74 mm operating area
- Raised symbols conform to TSI PRM & ADA
- Integrated finding tone for visually impaired persons
- Two unique, independently illuminated feedback rings
- Coherent look and feel of the entire Series 57

Colour of front bezels

- Plastic: Green RAL 6032, red RAL 3000, blue RAL 5015, yellow RAL 1023, grey RAL 7040, black RAL 9017
- Metal: Aluminium natural anodised

Symbols conform to TSI PRM & ADA



Colour of symbols

- Plastic and metal: Black RAL 9017

Standards and directives

- Declaration of Conformities
 - EN 60947-5-1 (without Tri-Colour)
 - EN 50155, part EMV
 - EN 14752:2015
- Fire protection
 - NFF 16-101/NFF 16-102/NFF 31-054
 - DIN 5510-2/DIN 5510-5
 - EN 45545-2
- Cables in compliance with
 - DIN EN 50306-2; VDE 0260-306-2
 - DIN EN 50306-4; VDE 0260-306-4
 - NFF 63808/NFF 61030

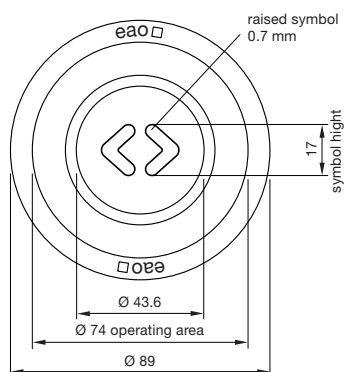
Mounting/replacement

The mounting dimensions of the Series 57 are identical to the dimensions of other manufacturers. An upgrade to Series 57 is therefore easily performed at any time.

Awards



Dimensions



Front bezel and symbol insert in plastic



Front bezel in plastic, symbol insert in aluminium natural anodised



Front bezel and symbol insert in aluminium natural anodised

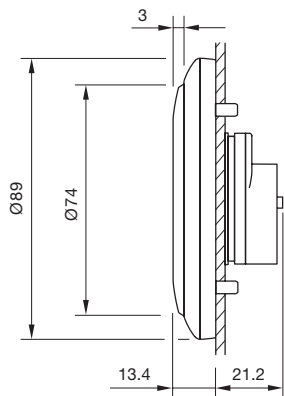


Door opening pushbutton single side, front mounting

The Series 57 door opening pushbutton is the perfect “all-in-one” choice for all rail vehicle manufacturers and operators who want a front mounting option.

- First choice to fully comply with EN 14752
- User-friendly, extra-large Ø 74 mm operating area
- Two unique, independently illuminated feedback rings
- Raised symbols conform to TSI PRM & ADA
- Integrated finding tone for visually impaired persons
- Simple and fast final mounting process requires no tools (saves time and costs)

Dimensions



Mounting cut-out (cable exit on the bottom)

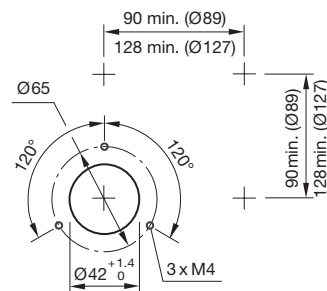


Diagram six pole

With finding tone

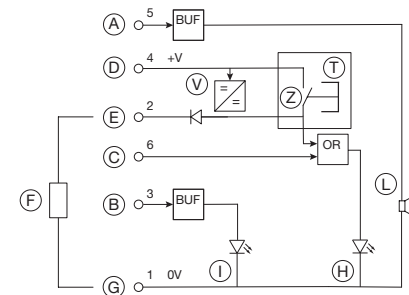
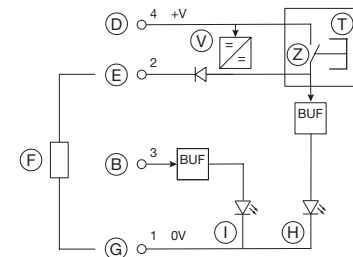


Diagram four pole

Without finding tone



Legend

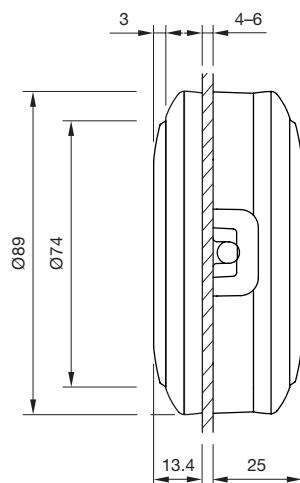
- A = Input finding tone
 - B = Input LED outer ring
 - C = Input LED inner ring
 - D = Positive supply voltage (+V)
 - E = Output electronic switch (not potential-free)
 - F = External load
 - G = Zero volt supply voltage (0V)
 - H = LED inner ring
 - I = LED outer ring
 - L = Sound source
 - T = Pushbutton
 - V = Voltage regulator
 - Z = Electronic switch with overcurrent cut-off
- Other connection options on request.

Door opening pushbutton double side, glass mounting

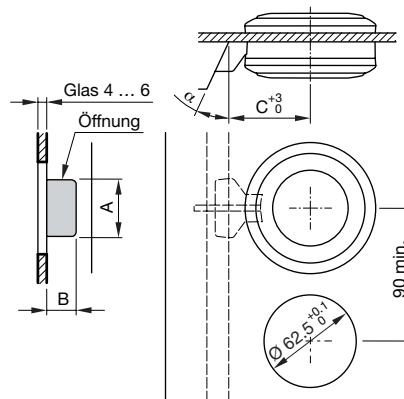
In addition to the advantages of the single side version, the glass mounting double side door opening pushbutton excels with its flexibility to configure the two pushbuttons. The inner and outer buttons can either work in parallel or independently.

- First choice to fully comply with EN 14752
- User-friendly, extra-large, Ø 74 mm operating area
- Two unique, independently illuminated feedback rings
- Raised symbols conform to TSI PRM & ADA
- Integrated finding tone for visually impaired persons
- Simple and fast final mounting process requires no tools (saves time and costs)
- Suitable for glass thickness of 4–6 mm
- Cable with max. 0.24 mm² by six pole diagram

Dimensions



Mounting cut-out



Cable cover	α (°)	A (mm)	B (mm)	C (mm)
		max.	max.	
Standard	0	18	11.5	45
Standard 45°	45	18	11.5	45
Funnel 0°	0	24	17.5	57
Funnel 10°	10	24	17.5	57
Funnel 15°	15	24	17.5	57
Funnel 25°	25	24	17.5	57

Diagram four pole

Switch parallel, LED outer ring parallel, without finding tone

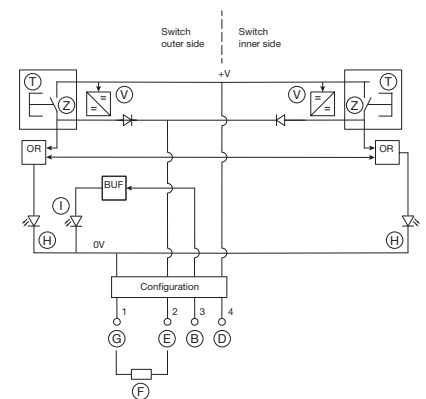
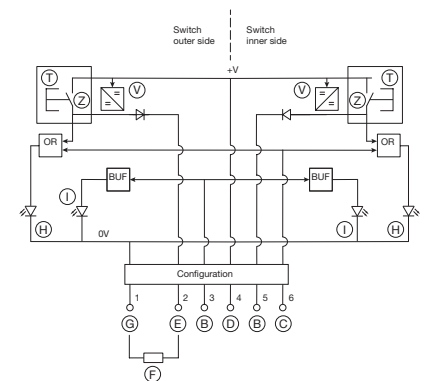


Diagram six pole

Switch separately, LED inner ring/outer ring parallel, without finding tone



Legend

- B = Input LED outer ring
- C = Input LED inner ring
- D = Positive supply voltage (+V)
- E = Output electronic switch (not potential-free)
- F = External load
- G = Zero volt supply voltage (0V)
- H = LED inner ring
- I = LED outer ring
- T = Pushbutton
- V = Voltage regulator
- Z = Electronic switch with overcurrent cut-off

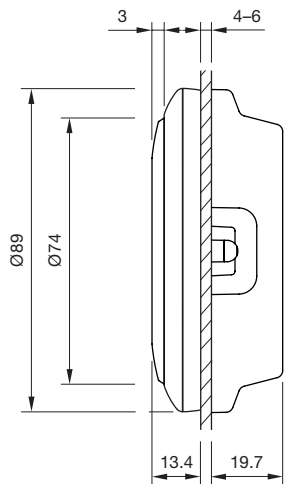
Other connection options on request.

Door opening pushbutton single side, glass mounting

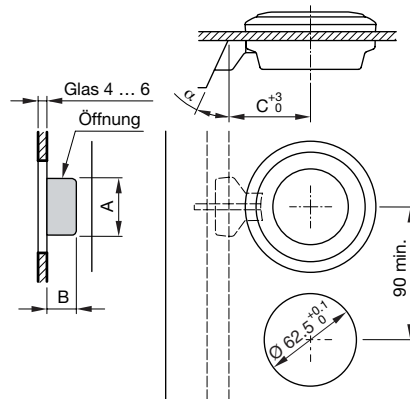
The glass mounting single side door opening pushbutton combines the advantages of the single side door opening pushbutton with glass mounting.

- First choice to fully comply with EN 14752
- User-friendly, extra-large, Ø74 mm operating area
- Two unique, independently illuminated feedback rings
- Raised symbols conform to TSI PRM & ADA
- Integrated finding tone for visually impaired persons
- Suitable for glass thickness of 4–6 mm

Dimensions



Mounting cut-out



Cable cover	α (°)	A (mm)	B (mm)	C (mm)
		max.	max.	
Standard	0	18	11.5	45
Standard 45°	45	18	11.5	45
Funnel 0°	0	24	17.5	57
Funnel 10°	10	24	17.5	57
Funnel 15°	15	24	17.5	57
Funnel 25°	25	24	17.5	57

Diagram six pole With finding tone

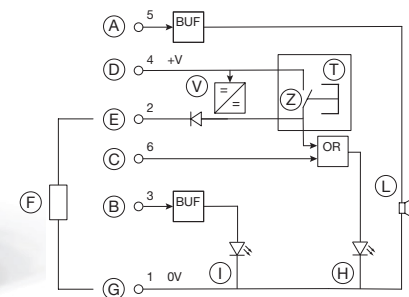
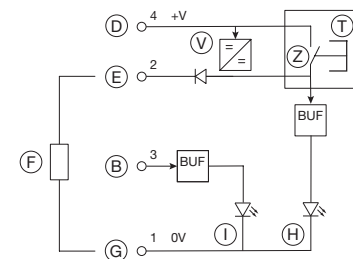


Diagram four pole Without finding tone



Legend

- A = Input finding tone
 - B = Input LED outer ring
 - C = Input LED inner ring
 - D = Positive supply voltage (+V)
 - E = Output electronic switch (not potential-free)
 - F = External load
 - G = Zero volt supply voltage (0V)
 - H = LED inner ring
 - I = LED outer ring
 - L = Sound source
 - T = Pushbutton
 - V = Voltage regulator
 - Z = Electronic switch with overcurrent cut-off
- Other connection options on request.

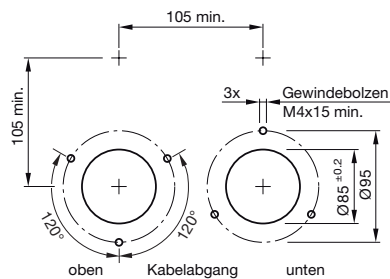
Door opening pushbutton, single side, flush mounting

This door opening pushbutton meets all the requirements of a high-speed train. The flush mounting and modern design suit any application superbly where strict standards apply.

- First choice to fully comply with EN 14752
- User-friendly, extra-large, Ø 74 mm operating area
- Two unique, independently illuminated feedback rings
- Raised symbols conform to TSI PRM & ADA
- Integrated finding tone for visually impaired persons
- Suitable for panel thickness of 2–3 mm
- Rear mounting



Mounting cut-out
(cable exit on the bottom)



Dimensions

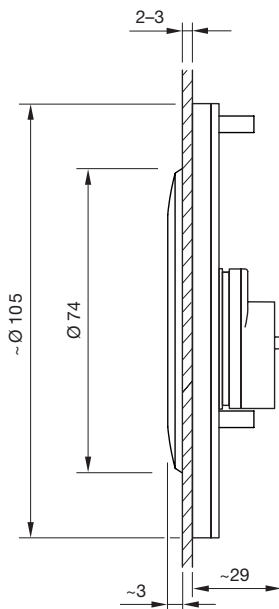


Diagram six pole
With finding tone

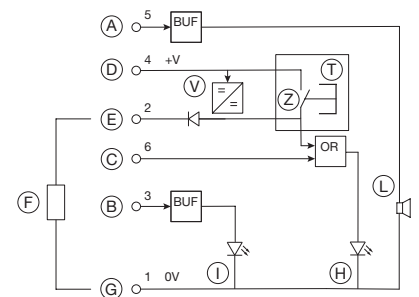
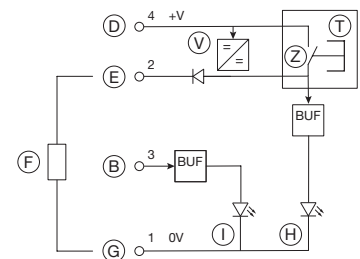


Diagram four pole
Without finding tone



Legend

- A = Input finding tone
 - B = Input LED outer ring
 - C = Input LED inner ring
 - D = Positive supply voltage (+V)
 - E = Output electronic switch (not potential-free)
 - F = External load
 - G = Zero volt supply voltage (0V)
 - H = LED inner ring
 - I = LED outer ring
 - L = Sound source
 - T = Pushbutton
 - V = Voltage regulator
 - Z = Electronic switch with overcurrent cut-off
- Other connection options on request.

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