

Series

57

Door opening pushbutton

www.eao.com



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, illuminated 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; 1000 mm; 2000 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
- White LED for symbol illumination (optional)

Switching element

- Electronic high-side switch

Finding tone (optional)

- 65 dB @ 10 cm @ 1 kHz (other sound levels on request)
- Sound frequencies according to BÖV/SöV

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 of all Series 57 door opening pushbuttons.

- Extra-large Ø 74 mm operating area
- Raised, illuminated 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

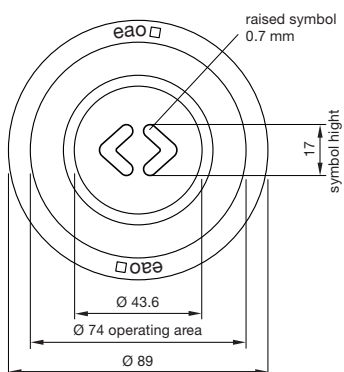
- Plastic: Green RAL 6032, red RAL 3000, blue RAL 5015, yellow RAL 1023, grey RAL 7040, black RAL 9017
- Metal: Aluminium natural anodised

Symbols conform to TSI PRM & ADA



(Illuminated symbols optional)

Dimensions



Colour of symbols

- Plastic and metal: Black RAL 9017

Standards and directives

- Declaration of Conformities
 - EN 60947-5-1
 - 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



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

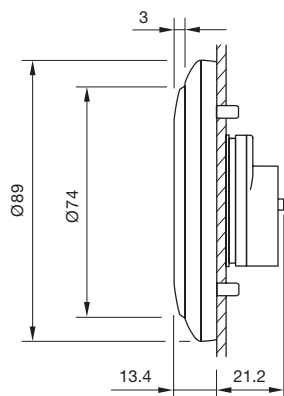


Door opening pushbutton single side, front mounting

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 Ø74 mm operating area
- Two unique, independently illuminated feedback rings
- Raised, illuminated symbols conform to TSI PRM and 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)

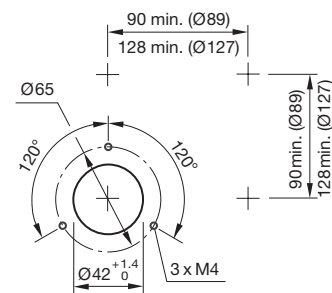


Diagram six pole

With finding tone and illuminated symbols

VDC = 16 - 63VDC/50 - 143VDC

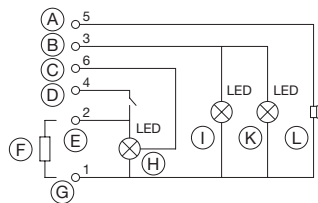


Diagram six pole

With finding tone and separate control for LED inner and outer ring

VDC = 16 - 63VDC/50 - 143VDC

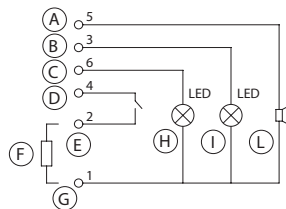
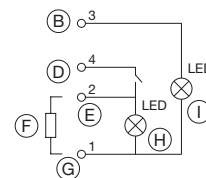


Diagram four pole

Without finding tone and without illuminated symbols

VDC = 16 - 63VDC/50 - 143VDC



Legend

- A = VDC finding tone
- B = VDC outer ring/symbol
- C = VDC inner ring
- D = VDC
- E = Switch
- F = Load
- G = 0 V
- H = Inner ring
- I = Outer ring
- K = Symbol
- L = Finding tone

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, illuminated symbols conform to TSI PRM and 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

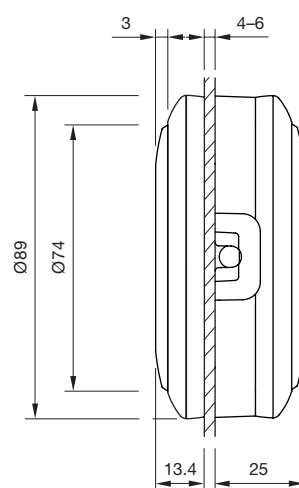


Diagram four pole

Switch parallel, LED outer ring parallel, without finding tone

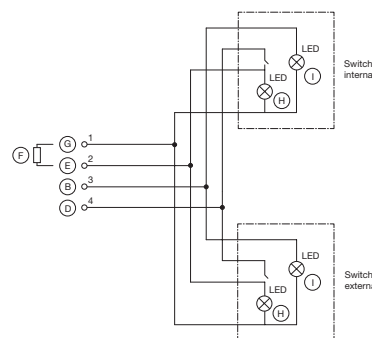
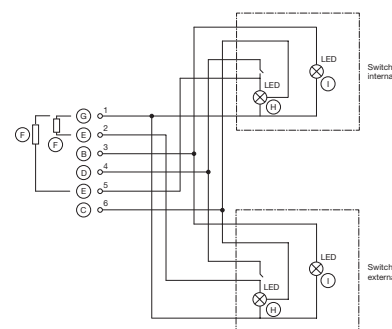
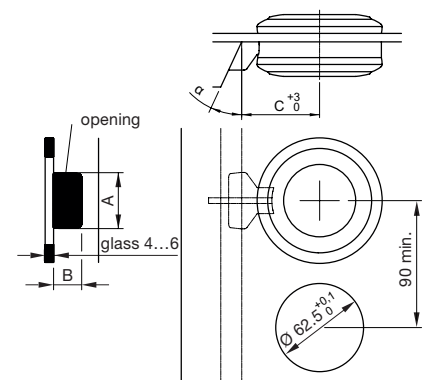


Diagram six pole

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



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

Legend

A = VDC finding tone
 B = VDC outer ring/symbol
 C = VDC inner ring
 D = VDC
 E = Switch
 F = Load
 G = 0 V
 H = Inner ring
 I = Outer ring
 K = Symbol
 L = Finding tone
 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, Ø 74 mm operating area
- Two unique, independently illuminated feedback rings
- Raised, illuminated symbols conform to TSI PRM and ADA
- Integrated finding tone for visually impaired persons
- Suitable for glass thickness of 4–6 mm

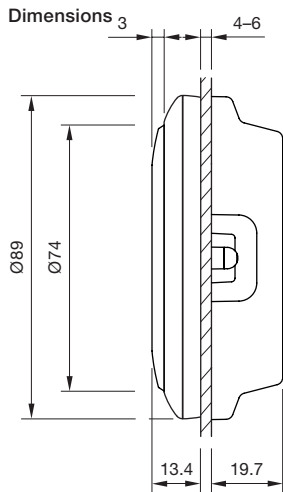


Diagram four pole

Without finding tone and without illuminated symbols

VDC = 16 - 63VDC/50 - 143VDC

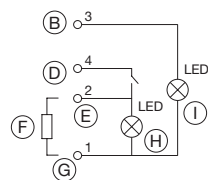
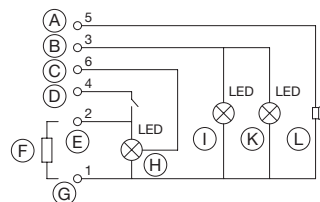


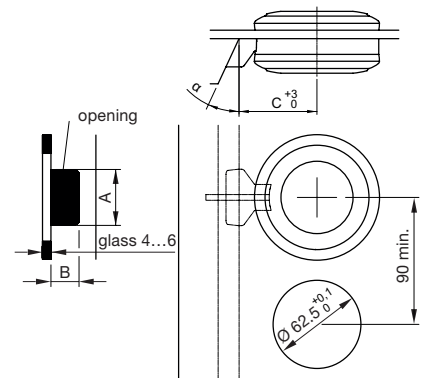
Diagram six pole

With finding tone and illuminated symbols

VDC = 16 - 63VDC/50 - 143VDC



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

Legend

- A = VDC finding tone
 - B = VDC outer ring / symbol
 - C = VDC inner ring
 - D = VDC
 - E = Switch
 - F = Load
 - G = 0 V
 - H = Inner ring
 - I = Outer ring
 - K = Symbol
 - L = Finding tone
- Other connection options on request.

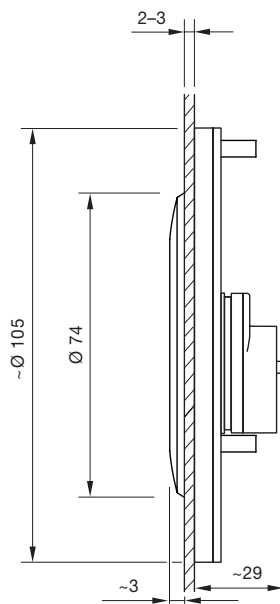
Door opening pushbutton, single side, flush mounting

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, illuminated symbols conform to TSI PRM & ADA
- Integrated finding tone for visually impaired persons
- Suitable for panel thickness of 2-3 mm
- Rear mounting



Dimensions



Important note

The mounting set for flush mounting is specifically produced for your tailored application. Please contact your EAO partner for more information.

Mounting cut-out

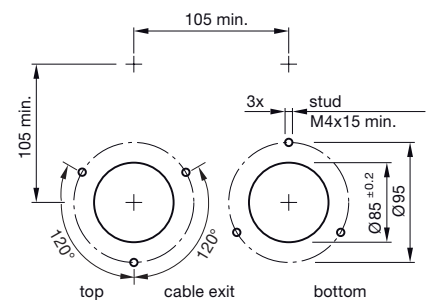
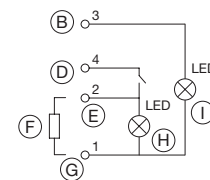


Diagram four pole

Without finding tone and without illuminated symbols

VDC = 16 - 63VDC/50 - 143VDC



Legend

- A = VDC finding tone
 - B = VDC outer ring/symbol
 - C = VDC inner ring
 - D = VDC
 - E = Switch
 - F = Load
 - G = 0 V
 - H = Inner ring
 - I = Outer ring
 - K = Symbol
 - L = Finding tone
- Other connection options on request.

Diagram six pole

With finding tone and illuminated symbols

VDC = 16 - 63VDC/50 - 143VDC

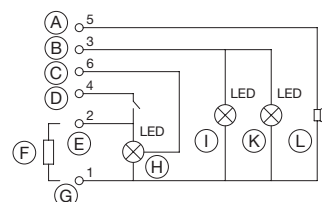
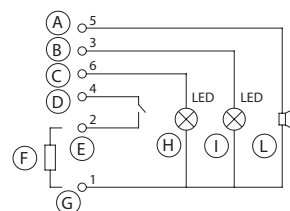


Diagram six pole

With finding tone and separate control for LED inner and outer ring

VDC = 16 - 63VDC/50 - 143VDC



EAO Contact.

Your centre of excellence.

Headquarters

EAO Holding AG
Tannwaldstrasse 88
CH-4600 Olten
Telephone +41 62 286 91 11
info@eao.com

Manufacturing Companies

Switzerland
EAO AG
Tannwaldstrasse 88
CH-4600 Olten
Telephone +41 62 286 91 11
info@eao.com

EAO Systems AG
Tannwaldstrasse 88
CH-4600 Olten
Telephone +41 62 286 91 11
sales.esy@eao.com

China
EAO (Guangzhou) Ltd.
3/F, Block G4, South China
New Materials Innovation Park
31 Kefeng Road,
Guangzhou Science City,
CN-Guangzhou, PRC
Telephone +86 20 3229 0390
sales.ecn@eao.com

Germany
EAO Automotive GmbH & Co. KG
Richard-Wagner-Straße 3
DE-08209 Auerbach/Vogtland
Telephone +49 3744 8264 0
sales.esa@eao.com

North America
EAO Corporation
One Parrott Drive
Shelton
US-CT 06484
Telephone +1 203 951 4600
sales.eus@eao.com

Sales Companies

China
EAO (Guangzhou) Ltd.
3/F, Block G4, South China
New Materials Innovation Park
31 Kefeng Road,
Guangzhou Science City,
CN-Guangzhou, PRC
Telephone +86 20 3229 0390
sales.ecn@eao.com

EAO (Shanghai) Office
Rm. 403, Block 5#,
CIFI Century Square, Lane 28,
NO. 21, Danba Road,
Putuo District
CN-Shanghai PRC
Telephone +86 21 6095 0717
sales.ecn@eao.com

France
EAO France SAS
5, rue Henri François
FR-77330 Ozoir-la-Ferrière
Telephone +33 1 64 43 37 37
sales.efr@eao.com

**Germany, Austria,
Poland, Czech Republic**
EAO GmbH
Langenberger Straße 570
DE-45277 Essen
Telephone +49 201 8587 0
sales.ede@eao.com

Hong Kong (Asia Pacific)
EAO (Far East) Ltd.
Unit A1, 1/F, Block A
Tin On Industrial Building
777 Cheung Sha Wan Road
Lai Chi Kok, Kln
HK-Hong Kong
Telephone +852 27 86 91 41
sales.ehk@eao.com

Italy
EAO Italia S.r.l.
Centro Direzionale Summit –
Palazzo D1
Via Brescia, 28
IT-20063 Cernusco sul Naviglio (MI)
Telephone +39 02 92 471934
sales.eit@eao.com

Japan
EAO Japan Co. Ltd.
Net 1 Mita Bldg. 3F
3-1-4 Mita Minato-ku
JP-Tokyo 108-0073
Telephone +81 3 5444 5411
sales.ejp@eao.com

Netherlands, Belgium
EAO Benelux B.V.
Kamerlingh Onnesweg 46
NL-3316 GL Dordrecht
Telephone +31 78 653 17 00
sales.enl@eao.com

North America
EAO Corporation
One Parrott Drive
Shelton
US-CT 06484
Telephone +1 203 951 4600
sales.eus@eao.com

Sweden
EAO Svenska AB
Box 7032
SE-121 07 Stockholm-Globen
Telephone +46 8 683 86 60
sales.esw@eao.se

Switzerland
EAO Schweiz AG
Tannwaldstrasse 86
CH-4600 Olten
Telephone +41 62 286 95 00
sales.ech@eao.com

United Kingdom
EAO Ltd.
Highland House
Albert Drive
Burgess Hill
GB-West Sussex RH15 9TN
Telephone +44 1444 236 000
sales.euk@eao.com