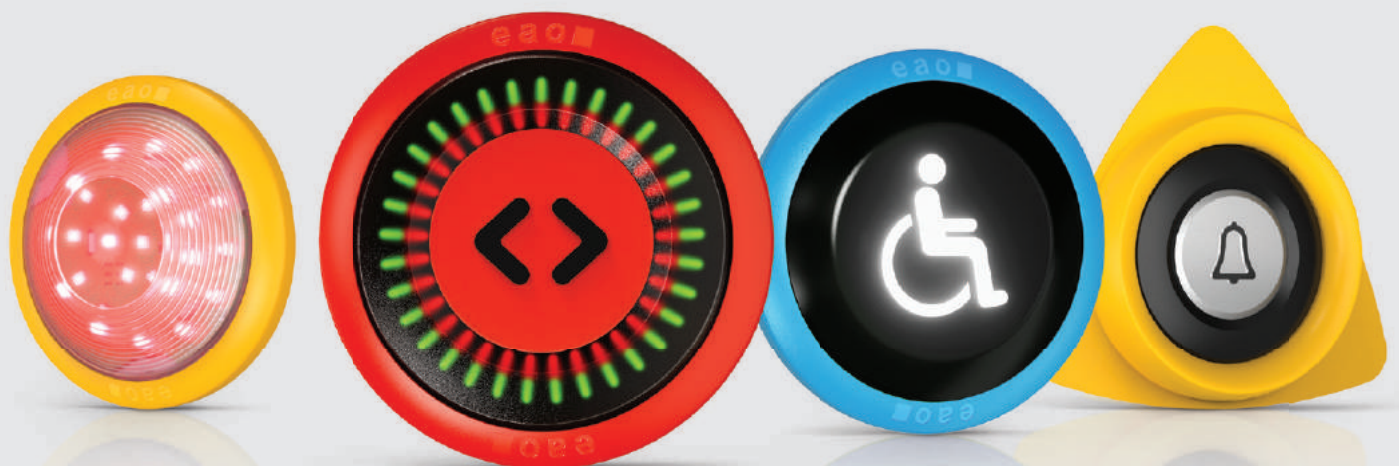


Series 57

Innovative. Intuitive and modern.

<https://eao.com/57>



57 Information about the Series

Key advantages

- First choice to fully comply with EN 14752
- User friendly, extra large operating area of Ø 74 mm
- Two unique, illuminated feedback rings
- Conform to TSI PRM
- Robust, raised front bezel prevents unintended activation
- Coherent look and feel of the entire Series 57
- Integrated finding tone
- High IP69K front protection
- Optional illumination functions
- Smart final mounting

Typical application areas

- Passenger access systems
- Passenger information systems
- Call for aid terminals
- Emergency and emergency call systems
- Toilet facilities on trains and buses
- Lifting and moving systems
- Access control systems

Functions

- Indicator
- Door opening pushbutton
- Call for aid pushbutton
- Warning indicator

Design

- Front mounting
- Rear mounting
- Glass mounting

IP front protection

- IP69K

Rating

- max. 250 mA

Mounting cut-outs

- Ø 42 mm

Terminal

- Cable with plug-in connection

Lens Material

- Aluminium
- Plastic

Markings

- Milling
- Injected in plastic

Approvals

- CCC
- E1 Regulation No. 10
- E1 118RII
- TSI PRM (EBC)

Conformities

- CE
- 2014/30/EU (EMC)
- 1300/2014/EU (TSI PRM)
- 2011/65/EU (RoHS)



Overview**Front mounting**

Pushbutton	4
Indicator	7
Warning indicator	10
Multi-Tone Warning Indicator	12
Call for aid pushbutton	14

Glass mounting

Single side pushbutton	16
Double side pushbutton	19

Components	23
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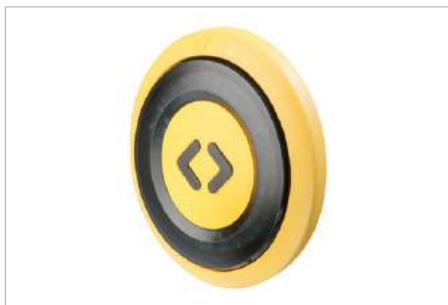
Accessories	25
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Technical data	27
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Application guidelines	36
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57 Front mounting

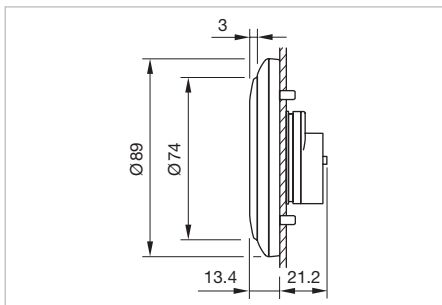
Single side pushbutton



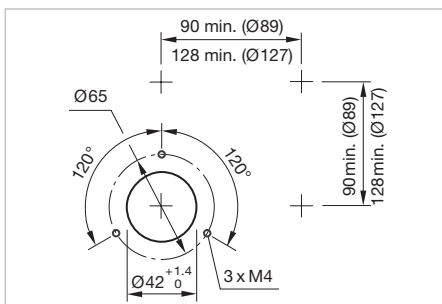
The preview is based on a sample product. This can differ from your current configuration.

Product features

- User friendly, extra large operating area of Ø 74 mm
- Illuminable feedback rings; outer ring green and inner ring red
- Raised symbols conform to TSI PRM
- Integrated optional finding tone for visually impaired persons
- Cable and front bezel are available as single parts
- Please complete a separate order form at www.eao.com/downloads and deliver it to your local EAO distributor
- Part No. 57-10-xxxxxx (with cable)
Part No. 57-100-xxxxxx (without cable)

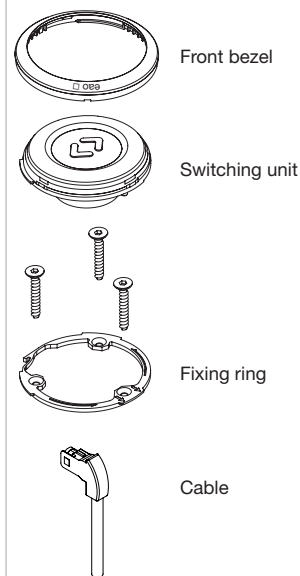


Dimensions [mm]



Mounting cut-outs [mm]

Equipment consisting of



Front bezel

plastic, colour similar RAL		aluminium	without
☐ green RAL 6032	☐ red RAL 3000	☐ natural anodized	☐
☐ blue RAL 5015	☐ yellow RAL 1023		
☐ grey RAL 7040	☐ black RAL 9017		
☐ night blue RAL 5022			

Symbol insert

plastic, colour similar RAL		aluminium
☐ green RAL 6032	☐ red RAL 3000	☐ natural anodized
☐ blue RAL 5015	☐ yellow RAL 1023	
☐ grey RAL 7040	☐ night blue RAL 5022 (wheelchair)	

Symbol/Symbol colour similar RAL

Symbol plastic Symbol aluminium, natural anodized				Symbol aluminium, natural anodized			
☐ black RAL 9017	☐ black RAL 9017	☐ black RAL 9017	☐ black RAL 9017 ☐ white RAL 9003	☐ black RAL 9017	☐ black RAL 9017	☐ black RAL 9017	☐ black RAL 9017
☐ white RAL 9003	☐ white RAL 9003			☐ yellow RAL 1023 ☐ black RAL 9017	☐ black RAL 9017	☐ black RAL 9017	☐ black RAL 9017

Finding tone

☐ standard 65 dB (A)

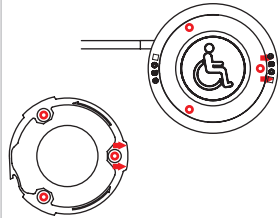
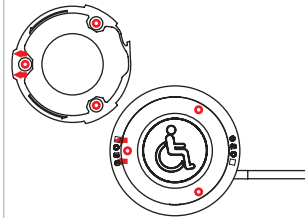
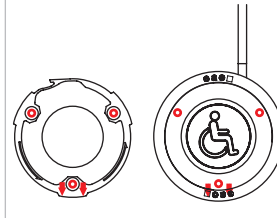
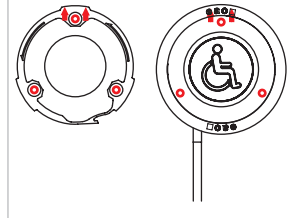
☐ without

Supply voltage

☐ 16 – 63 VDC

☐ 50 – 143 VDC

Cable exit

☐ cable exit left

☐ cable exit right

☐ cable exit top

☐ cable exit bottom


Cable length

☐ A = 200 mm

☐ A = 1000 mm

☐ A = 2000 mm

☐ _____ mm

☐ without cable

Cable and Connector type

Cable	Wiring diagram	Connector	Connector pin assignment		
☐ 4 x 0.24 mm ²	3, 4	☐ Core end-sleeves		☐ standard	☐ special
☐ 4 x 0.50 mm ²	3, 4	☐ AMP MATE-N-LOK 794805-1 (4P)	1	Pin 1	—
☐ 6 x 0.24 mm ²	1, 2, 5, 6	☐ AMP MATE-N-LOK 794895-1 (6P)	2	Pin 2	—
☐ 6 x 0.50 mm ²	1, 2, 5, 6	☐ WAGO X-COM 769	3	Pin 3	—
		☐ AMP FASTIN-FASTON 180901 (4P)	4	Pin 4	—
		☐ DEUTSCH DT04-4P-C015 (4P)	5	Pin 5	—
		☐ DEUTSCH DT04-6P-C015 (6P)	6	Pin 6	—

Finding tone	Number of strands	Wiring diagram according to EN 14752
X	6	VDC = 16 - 63VDC/50 - 143VDC

Wiring diagram 1

X	4	VDC = 16 - 63VDC/50 - 143VDC
---	---	-------------------------------------

Wiring diagram 3

Finding tone	Number of strands	Wiring diagram according to EN 14752
—	6	VDC = 16 - 63VDC/50 - 143VDC

Wiring diagram 2

—	4	VDC = 16 - 63VDC/50 - 143VDC
---	---	-------------------------------------

Wiring diagram 4

57 Front mounting

Finding tone	Number of strands	Wiring diagram as per EN 14752
X	6	VDC = 16 - 63VDC/50 - 143VDC Wiring diagram 5

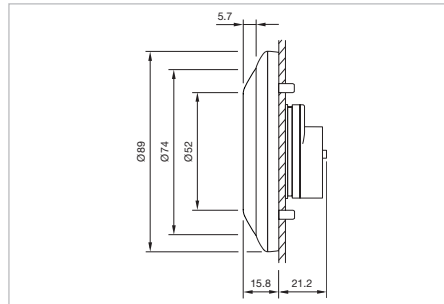
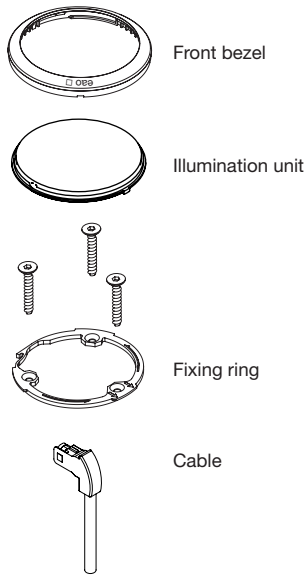
Finding tone	Number of strands	Wiring diagram as per EN 14752
-	5	VDC = 16 - 63VDC/50 - 143VDC Wiring diagram 6

Legend

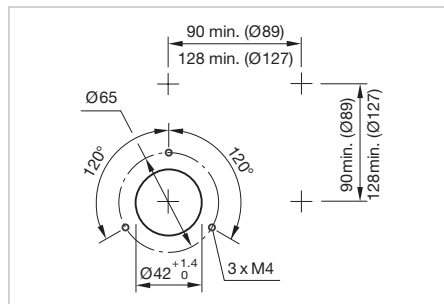
- A = VDC finding tone
- B = VDC outer ring
- C = VDC inner ring
- D = VDC
- E = Switch (not potential-free)
- F = Load (max. 250 mA)
- G = 0 V
- H = Inner ring
- I = Outer ring
- L = Finding tone

Indicator

Equipment consisting of



Dimensions [mm]



Mounting cut-outs [mm]



The preview is based on a sample product. This can differ from your current configuration.

Product features

- Extra large illuminated surface, Ø 52 mm
- LEDs ensure an optimal illumination
- Cable and front bezel are available as single parts
- Please complete a separate order form at www.eao.com/downloads and deliver it to your local EAO distributor
- Part No. 57-60-xxxxxx (with cable)
Part No. 57-600-xxxxxx (without cable)

Front bezel

plastic, colour similar RAL

- | | |
|--|--|
| ☐ green RAL 6032 | ☐ red RAL 3000 |
| ☐ blue RAL 5015 | ☐ yellow RAL 1023 |
| ☐ grey RAL 7040 | ☐ black RAL 9017 |
| ☐ night blue RAL 5022 | |

aluminium

- ☐ natural anodized

without

- ☐

Symbols

☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐		

Illumination

Single colour

- | | | |
|-------------------------------|---------------------------------|--------------------------------|
| ☐ red | ☐ yellow | ☐ green |
| ☐ blue | ☐ white | |

Bi-colour

- | | | |
|---------------------------------------|--------------------------------------|---------------------------------------|
| ☐ red / yellow | ☐ red / green | ☐ blue / white |
|---------------------------------------|--------------------------------------|---------------------------------------|

57 Front mounting

Optional lighting effects

☐ No ☐ Yes

With optional light effect functions

PIN 2	☐ Red ☐ Yellow ☐ Green ☐ Blue ☐ White (Please advise one colour)	☐ Flashing frequency	☐ 0.0 Hz Constant lighting	Wiring diagram
			☐ 0.2 Hz	1 – 4
			☐ 0.5 Hz	3, 4
			☐ 1.0 Hz	3, 4
			☐ 2.5 Hz	3, 4
			☐ 50 %	1 – 4
PIN 3	☐ Red ☐ Yellow ☐ Green ☐ Blue ☐ White (Please advise one colour)	☐ Flashing frequency	☐ 0.0 Hz Constant lighting	1 – 4
			☐ 0.2 Hz	3, 4
			☐ 0.5 Hz	3, 4
			☐ 1.0 Hz	3, 4
			☐ 2.5 Hz	3, 4
			☐ 50 %	1 – 4
PIN 4	☐ Red ☐ Yellow ☐ Green ☐ Blue ☐ White (Please advise one colour)	☐ Flashing frequency	☐ 0.0 Hz Constant lighting	1 – 4
			☐ 0.2 Hz	3, 4
			☐ 0.5 Hz	3, 4
			☐ 1.0 Hz	3, 4
			☐ 2.5 Hz	3, 4
			☐ 50 %	1 – 4
		☐ Brightness	☐ 100 %	1 – 4

Note: Total up to 3 lighting effects available per indicator, please see «Illumination».

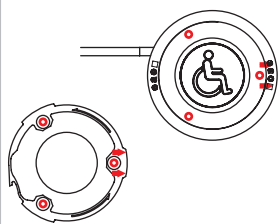
Supply voltage

☐ 24 VDC ☐ 110 VDC

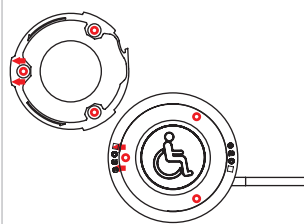
Tolerance +30 % ... -30 %

Cable exit

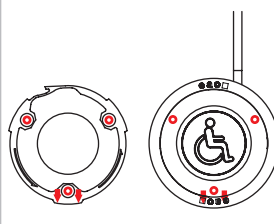
☐ cable exit left



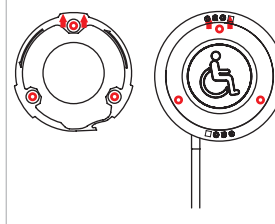
☐ cable exit right



☐ cable exit top



☐ cable exit bottom



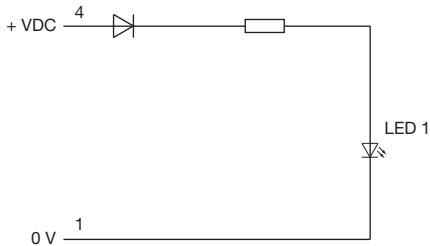
Cable length

☐ A = 200 mm (standard) ☐ A = 1000 mm ☐ A = 2000 mm ☐ _____ mm ☐ without cable

Cable and Connector type

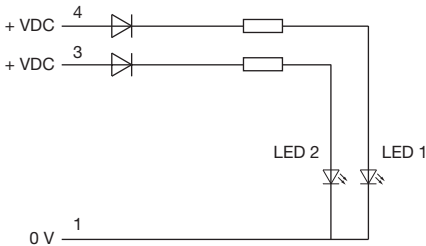
Cable	Wiring diagram	Connector	Connector pin assignment		
☐ 2 x 0.50 mm ²	1	☐ Core end-sleeves		☐ standard	☐ special
☐ 4 x 0.50 mm ²	2, 3, 4	☐ AMP MATE-N-LOK 794894-1 (2P)	1	Pin 1	—
		☐ AMP MATE-N-LOK 794805-1 (4P)	2	Pin 2	—
		☐ WAGO X-COM 769	3	Pin 3	—
		☐ AMP FASTIN-FASTON 180901 (4P)	4	Pin 4	—
		☐ DEUTSCH DT04-4P-C015 (4P)			
		☐ DEUTSCH DT04-6P-C015 (6P)			

Single-colour, no lighting effects (constant lighting)



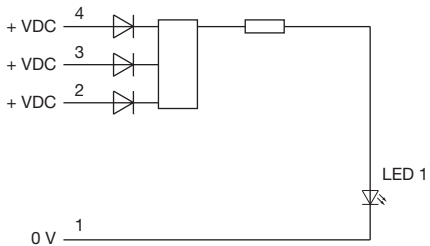
Wiring diagram 1

Bi-colour, no lighting effects (constant lighting)



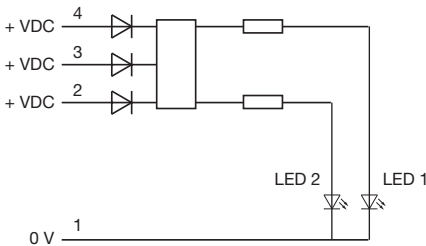
Wiring diagram 2

Single-colour, with lighting effects



Wiring diagram 3

Bi-colour, with lighting effects



Wiring diagram 4

57 Front mounting

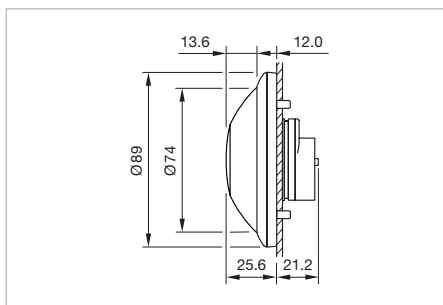
Warning indicator



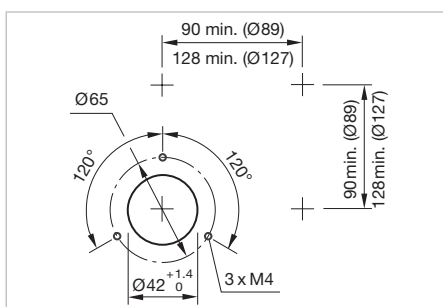
The preview is based on a sample product. This can differ from your current configuration.

Product features

- Extra large illuminated lens, Ø 74 mm
- LEDs ensure an optimal illumination
- Cable and front bezel are available as single parts
- Please complete a separate order form at www.eao.com/downloads and deliver it to your local EAO distributor
- Part No. 57-50-xxxxxx (with cable)
Part No. 57-500-xxxxxx (without cable)

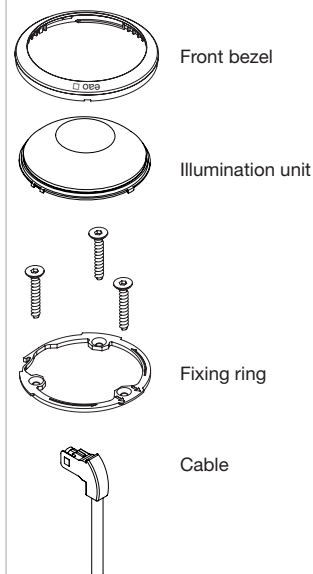


Dimensions [mm]



Mounting cut-outs [mm]

Equipment consisting of



Front bezel

plastic, colour similar RAL

☐ green RAL 6032

☐ blue RAL 5015

☐ grey RAL 7040

☐ night blue RAL 5022

☐ red RAL 3000

☐ yellow RAL 1023

☐ black RAL 9017

aluminium

☐ natural anodized

without

☐

Illumination

☐ red

☐ blue

☐ yellow

☐ green

Supply voltage

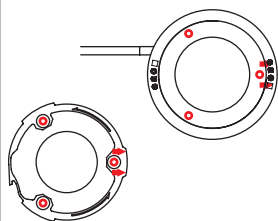
☐ 24 VDC

☐ 110 VDC

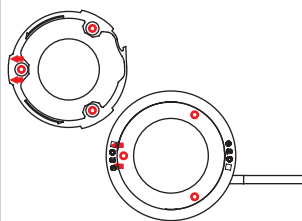
Tolerance +30 % ... -30 %

Cable exit

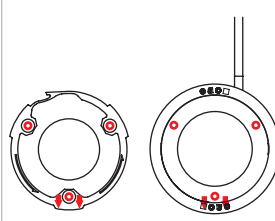
☐ cable exit left



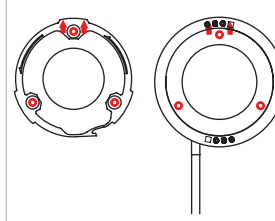
☐ cable exit right



☐ cable exit top

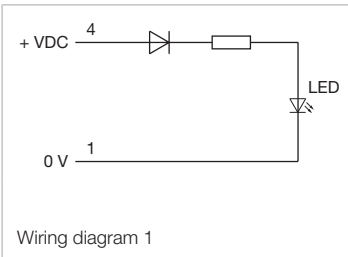


☐ cable exit bottom



Cable length				
☐ A = 200 mm	☐ A = 1000 mm	☐ A = 2000 mm	☐ _____ mm	☐ without cable

Cable and Connector type					
Cable	Wiring diagram	Connector	Connector pin assignment		
☐ 2 x 0.50 mm ²	1	☐ Core end-sleeves		☐ standard	☐ special
		☐ AMP MATE-N-LOK 794894-1 (2P)	1	Pin 1	—
		☐ WAGO X-COM 769	4	Pin 4	—
		☐ DEUTSCH DT04-2P-C015 (2P)			



57 Front mounting

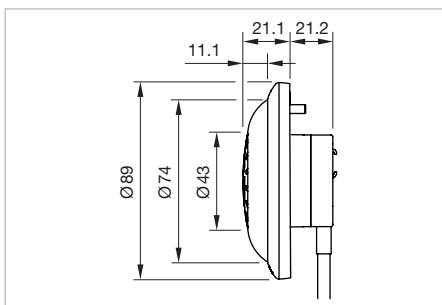
Multi-Tone Warning Indicator



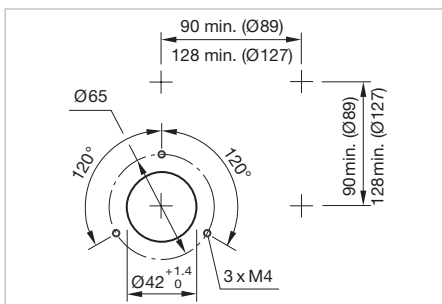
The preview is based on a sample product. This can differ from your current configuration.

Product features

- Audible and visual warning in a single device
- 3-tone sequences module with manual volume or passive loudspeaker
- The description of the standard tones can be found in the «Application guidelines».
- A single cable for two functions, space-saving and low mounting costs
- Extra large illuminated lens, Ø 74 mm
- Reliable LEDs ensure an optimum illumination
- Cable and front bezel are available as single parts
- Please complete a separate order form at www.eao.com/downloads and deliver it to your local EAO distributor
- Part No. 57-70-xxxxxx (with cable)
Part No. 57-700-xxxxxx (without cable)

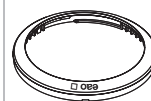


Dimensions [mm]



Mounting cut-outs [mm]

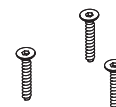
Equipment consisting of



Front bezel



Front cap
with Tone /
illumination unit



Fixing ring



Cable

Front bezel			
plastic, colour similar RAL		aluminium	without
☐ green RAL 6032	☐ red RAL 3000	☐ natural anodized	☐
☐ blue RAL 5015	☐ yellow RAL 1023		
☐ grey RAL 7040	☐ black RAL 9017		
☐ night blue RAL 5022			

Illumination					
Single colour				Bi-Colour	
☐ red	☐ blue	☐ yellow	☐ white	☐ red/yellow	☐ red/green

Supply voltage
☐ 24 VDC
Tolerance -30 % ... +25 %

Front cap
plastic, colour similar RAL
☐ black RAL 9017

Front cap marking	
☐ without symbol	☐ with symbol

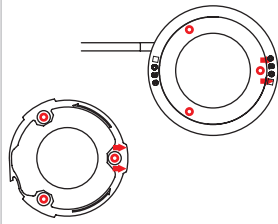
Volume adjustment	
☐ Manual 3-tone sequences module	☐ Passive loudspeaker

Tone Sequences

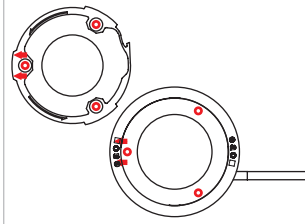
☐ 3-Tone

Cable exit

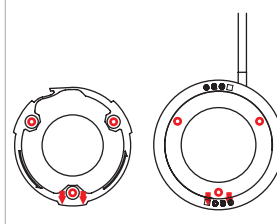
☐ cable exit left



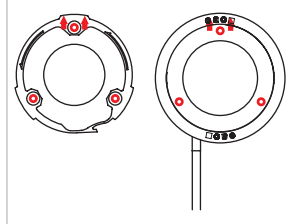
☐ cable exit right



☐ cable exit top



☐ cable exit bottom



Cable length

☐ A = 200 mm

☐ A = 1000 mm

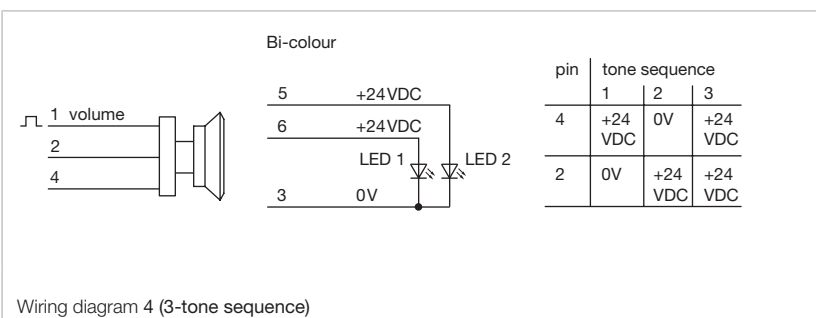
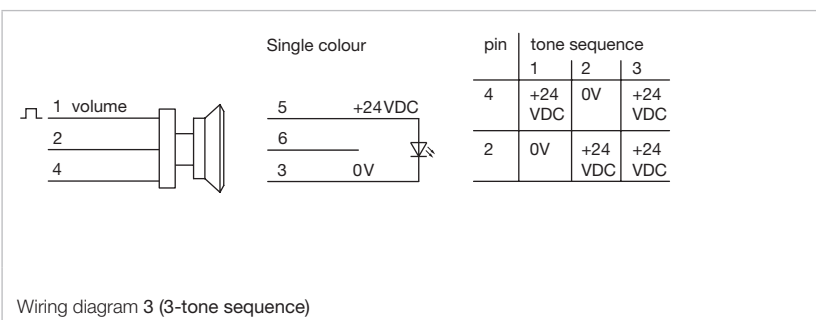
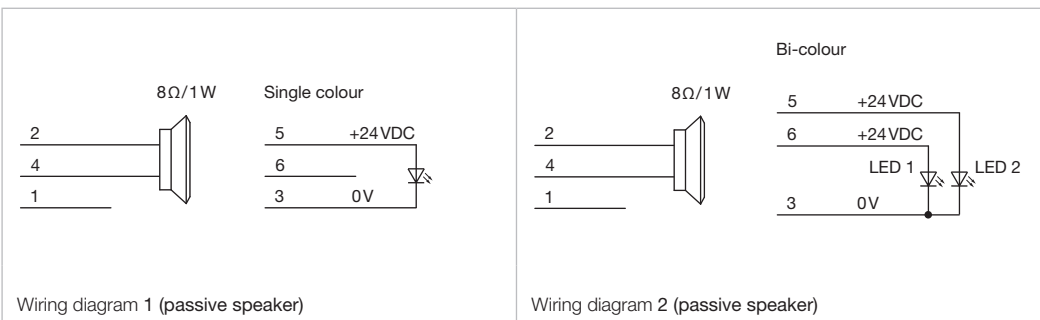
☐ A = 2000 mm

☐ _____ mm

☐ without cable

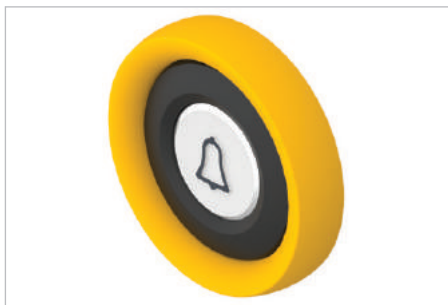
Cable and Connector type

Cable	Wiring diagram	Connector	Connector pin assignment		
☐ 6 x 0.24 mm ²	1, 2, 3, 4	☐ Core end-sleeves	strand	☐ standard	☐ special
☐ 6 x 0.50 mm ²	1, 2, 3, 4	☐ AMP MATE-N-LOK 794895-1 (6P)	1	Pin 1	—
		☐ WAGO X-COM 769-106	2	Pin 2	—
		☐ DEUTSCH DT04-6P-C015 (6P)	3	Pin 3	—
		☐ M8x1 (0,24 mm ²)	4	Pin 4	—
			5	Pin 5	—
			6	Pin 6	—

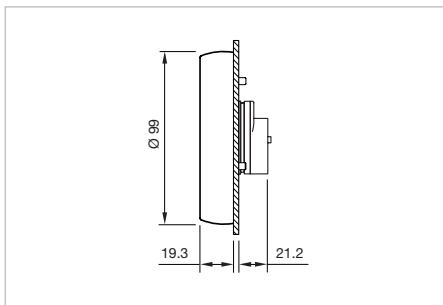


57 Front mounting

Call for aid pushbutton

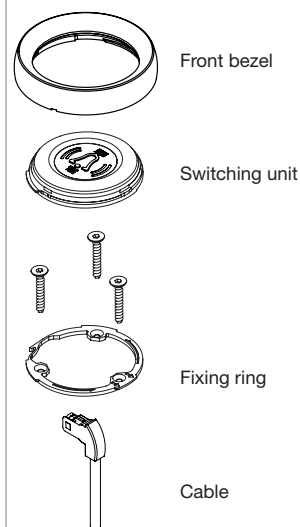


Product can differ from the current configuration.



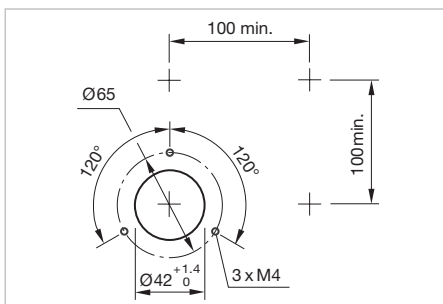
Dimensions [mm]

Equipment consisting of



Product features

- User friendly, extra large operating area of Ø 74 mm
- Illuminable feedback rings; outer ring green and inner ring red or yellow/yellow
- Raised bell symbol conform to TSI PRM
- Integrated optional finding tone for visually impaired persons
- Robust front bezel raised protects against accidental actuation
- Warning triangle available as accessory
- Please complete a separate order form at www.eao.com/downloads and deliver it to your local EAO distributor
- Part No. 57-10-xxxxxx (with cable)
Part No. 57-100-xxxxxx (without cable)



Mounting cut-outs [mm]

Front bezel

Plastic flush, colour similar RAL

☐ green RAL 6032

☐ yellow RAL 1023

Aluminium safety, colour similar RAL

☐ red anodized, RAL 3000

☐ green anodized, RAL 6032

☐ yellow anodized, RAL 1023

Symbol insert

Symbol lastic, colour similar RAL

red RAL 3000

green RAL 6032

yellow RAL 1023

Symbol aluminium, colour similar RAL

red anodized, RAL 3000

natural anodized



☐ white RAL 9003

☐ white RAL 9003

☐ white RAL 9003

☐ black RAL 9017

☐ black RAL 9017

Supply voltage

☐ 16 – 63 VDC

Finding tone

☐ standard 65 dB (A)

☐ without

Illuminable feedback rings

☐ Outer ring green/Inner ring red

☐ Outer ring yellow/Inner ring yellow

Cable length

☐ A = 200 mm (standard)

☐ A = 1000 mm

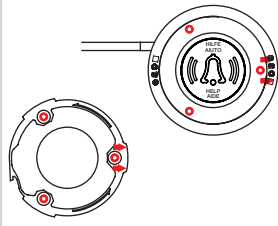
☐ A = 2000 mm

☐ _____ mm

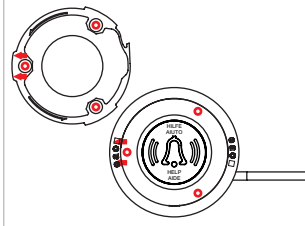
☐ without cable

Cable exit

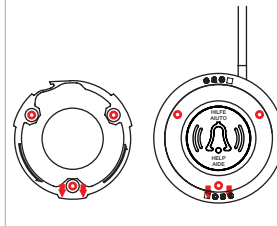
☐ cable exit left



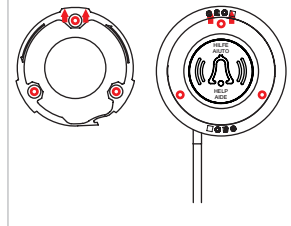
☐ cable exit right



☐ cable exit top



☐ cable exit bottom



Cable and Connector type

Cable	Wiring diagram	Connector	Connector pin assignment		
☐ 4 x 0.24 mm ²	3, 4	☐ Core end-sleeves		☐ standard	☐ special
☐ 4 x 0.50 mm ²	3, 4	☐ AMP MATE-N-LOK 794805-1 (4P)	1	Pin 1	—
☐ 6 x 0.24 mm ²	1, 2, 5, 6	☐ AMP MATE-N-LOK 794895-1 (6P)	2	Pin 2	—
☐ 6 x 0.50 mm ²	1, 2, 5, 6	☐ WAGO X-COM 769	3	Pin 3	—
		☐ AMP FASTIN-FASTON 180901 (4P)	4	Pin 4	—
		☐ DEUTSCH DT04-4P-C015 (4P)	5	Pin 5	—
		☐ DEUTSCH DT04-6P-C015 (6P)	6	Pin 6	—

Finding tone	Number of strands	Wiring diagram
X	6	VDC = 16 - 63VDC/50 - 143VDC
Wiring diagram 1		
X	4	VDC = 16 - 63VDC/50 - 143VDC
Wiring diagram 3		
X	6	VDC = 16 - 63VDC/50 - 143VDC
Wiring diagram 5		

Finding tone	Number of strands	Wiring diagram
—	6	VDC = 16 - 63VDC/50 - 143VDC
Wiring diagram 2		
—	4	VDC = 16 - 63VDC/50 - 143VDC
Wiring diagram 4		
—	5	VDC = 16 - 63VDC/50 - 143VDC
Wiring diagram 6		

Legende

A = VDC finding tone	G = 0 V
B = VDC outer ring	H = Inner ring
C = VDC inner ring	I = Outer ring
D = VDC	L = Finding tone
E = Switch (not potential-free)	
F = Load (max. 250 mA)	

57 Glass mounting

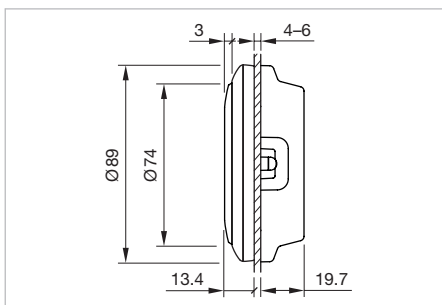
Single side pushbutton



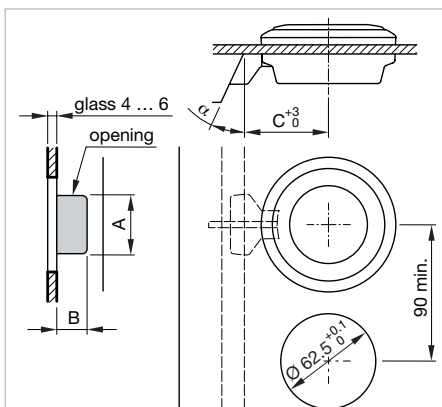
The preview is based on a sample product. This can differ from your current configuration.

Product features

- User friendly, extra large operating area of $\varnothing 74$ mm
- For glass thickness 4 – 6 mm
- Illuminable feedback rings; outer ring green and inner ring red
- Raised symbols conform to TSI PRM
- Integrated optional finding tone for visually impaired persons
- Cable, cable cover and front bezel are available as single parts
- Please complete a separate order form at www.eao.com/downloads and deliver it to your local EAO distributor
- Part No. 57-11-xxxxxx (with cable)
Part No. 57-110-xxxxxx (without cable)



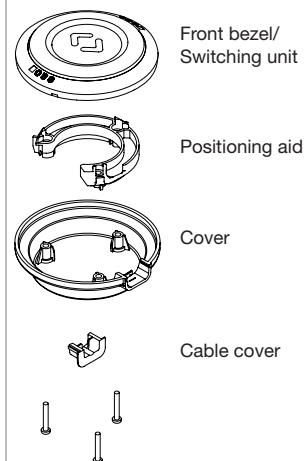
Dimensions [mm]



Mounting cut-outs [mm]

	α (°)	A (mm)	B (mm)	C (mm)
Cable cover standard	0	18 max.	11.5 max.	45
Cable cover standard 45°	45	18 max.	11.5 max.	45
Cable cover funnel 0°	0	24 max.	17.5 max.	57
Cable cover funnel 10°	10	24 max.	17.5 max.	57
Cable cover funnel 15°	15	24 max.	17.5 max.	57
Cable cover funnel 25°	25	24 max.	17.5 max.	57
Cable cover funnel 25° H24	25	24 max.	21.5 max.	62.5

Equipment consisting of



Front bezel

plastic, colour similar RAL		aluminium	without
☐ green RAL 6032	☐ red RAL 3000	☐ natural anodized with dismantling opening	☐
☐ blue RAL 5015	☐ yellow RAL 1023	☐ natural anodized without dismantling opening	
☐ grey RAL 7040	☐ black RAL 9017		
☐ night blue RAL 5022			

Symbol insert

plastic, colour similar RAL		aluminium
☐ green RAL 6032	☐ red RAL 3000	☐ natural anodized
☐ blue RAL 5015	☐ yellow RAL 1023	
☐ grey RAL 7040	☐ night blue RAL 5022 (wheel chair)	

Symbol/Symbol colour similar RAL

- ☐ Symbol plastic
☐ Symbol aluminium, natural anodized

			
☐ black RAL 9017	☐ black RAL 9017	☐ black RAL 9017	☐ black RAL 9017 ☐ white RAL 9003

- ☐ Symbol aluminium, natural anodized

			
☐ black RAL 9017	☐ black RAL 9017	☐ black RAL 9017	☐ black RAL 9017

	
☐ white RAL 9003	☐ white RAL 9003

			
☐ yellow RAL 1023 ☐ black RAL 9017	☐ black RAL 9017	☐ black RAL 9017	☐ black RAL 9017

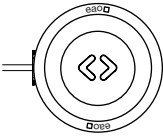
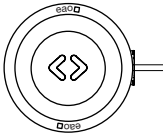
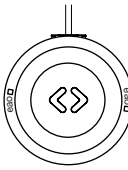
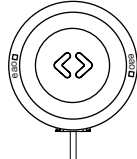
Finding tone

- ☐ standard 65 dB (A) ☐ without

Supply voltage

- ☐ 16 – 63 VDC ☐ 50 – 143 VDC

Cable exit (view from outside)

☐ cable exit left 	☐ cable exit right 	☐ cable exit top 	☐ cable exit bottom 
---	--	---	---

Cable cover

Standard

☐ 0° 	☐ 45° 	
--	---	--

Funnel

☐ 0° 	☐ 10° 	☐ 15° 	☐ 25° 	☐ 25° H24 
--	---	---	--	---

57 Glass mounting

Cable length

☐ A = 200 mm (standard) ☐ A = 1000 mm ☐ A = 2000 mm ☐ _____ mm ☐ without cable

Cable and Connector type

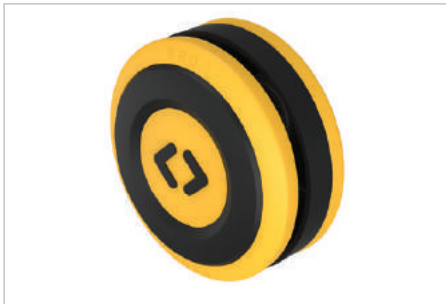
Cable	Wiring diagram	Connector	Connector pin assignment		
☐ 4 x 0.24 mm ²	3, 4	☐ Core end-sleeves		☐ standard	☐ special
☐ 4 x 0.50 mm ²	3, 4	☐ AMP MATE-N-LOK 794805-1 (4P)	1	Pin 1	—
☐ 6 x 0.24 mm ²	1, 2, 5, 6	☐ AMP MATE-N-LOK 794895-1 (6P)	2	Pin 2	—
☐ 6 x 0.50 mm ²	1, 2, 5, 6	☐ WAGO X-COM 769	3	Pin 3	—
		☐ AMP FASTIN-FASTON 180901 (4P)	4	Pin 4	—
		☐ DEUTSCH DT04-4P-C015 (4P)	5	Pin 5	—
		☐ DEUTSCH DT04-6P-C015 (6P)	6	Pin 6	—

Finding tone	Number of strands	Wiring diagram according to EN 14752
X	6	VDC = 16 - 63VDC/50 - 143VDC
Wiring diagram 1		
X	4	VDC = 16 - 63VDC/50 - 143VDC
Wiring diagram 3		
X	6	VDC = 16 - 63VDC/50 - 143VDC
Wiring diagram 5		

Finding tone	Number of strands	Wiring diagram according to EN 14752
—	6	VDC = 16 - 63VDC/50 - 143VDC
Wiring diagram 2		
—	4	VDC = 16 - 63VDC/50 - 143VDC
Wiring diagram 4		
—	5	VDC = 16 - 63VDC/50 - 143VDC
Wiring diagram 6		

Legend

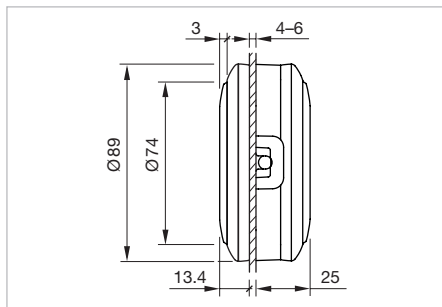
A = VDC finding tone
 B = VDC outer ring
 C = VDC inner ring
 D = VDC
 E = Switch (not potential-free)
 F = Load (max. 250 mA)
 G = 0 V
 H = Inner ring
 I = Outer ring
 L = Finding tone

Double side pushbutton

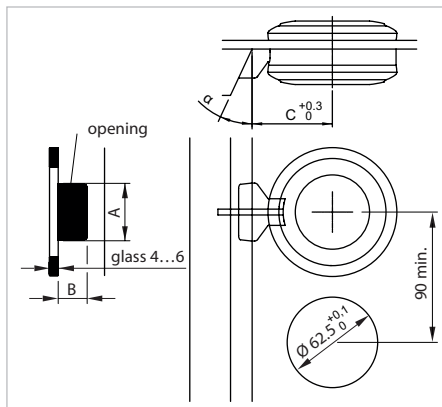
Musterabbildung kann von Ihrem ausgewählten Artikel abweichen.

Product features

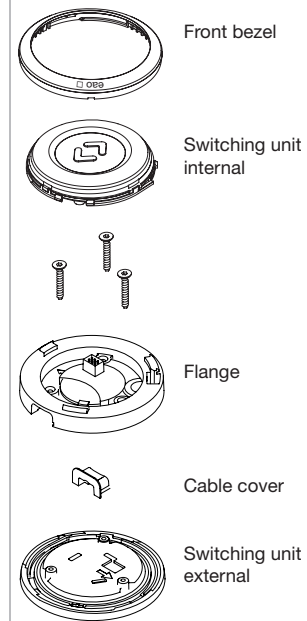
- User friendly, extra large operating area of Ø 74 mm
- For glass thickness 4 – 6 mm
- Illuminable feedback rings; outer ring green and inner ring red
- Raised symbols conform to TSI PRM
- Integrated optional finding tone for visually impaired persons
- Cable cover and front bezel are available as single parts
- Please complete a separate order form at www.eao.com/downloads and deliver it to your local EAO distributor
- Part No. 57-12-xxxxxx (with cable)



Dimensions [mm]



Mounting cut-outs [mm]

Equipment consisting of

	α (°)	A (mm)	B (mm)	C (mm)
Cable cover standard	0	18 max.	11.5 max.	45
Cable cover standard 45°	45	18 max.	11.5 max.	45
Cable cover funnel 0°	0	24 max.	17.5 max.	57
Cable cover funnel 10°	10	24 max.	17.5 max.	57
Cable cover funnel 15°	15	24 max.	17.5 max.	57
Cable cover funnel 25°	25	24 max.	17.5 max.	57
Cable cover funnel 25° H24	25	24 max.	21.5 max.	62.5

Front bezel external

Plastic, colour similar RAL		Aluminium natural anodized
☐ green RAL 6032	☐ red RAL 3000	☐ with dismantling opening
☐ blue RAL 5015	☐ yellow RAL 1023	
☐ grey RAL 7040	☐ black RAL 9017	
☐ night blue RAL 5022		
		☐ without dismantling opening

Front bezel internal

Plastic, colour similar RAL		Aluminium
☐ green RAL 6032	☐ red RAL 3000	☐ natural anodized
☐ blue RAL 5015	☐ yellow RAL 1023	
☐ grey RAL 7040	☐ black RAL 9017	
☐ night blue RAL 5022		

Symbol insert external

Plastic, colour similar RAL		Aluminium
☐ green RAL 6032	☐ red RAL 3000	☐ natural anodized
☐ blue RAL 5015	☐ yellow RAL 1023	
☐ grey RAL 7040	☐ black RAL 9017	
☐ night blue RAL 5022 (wheelchair)		

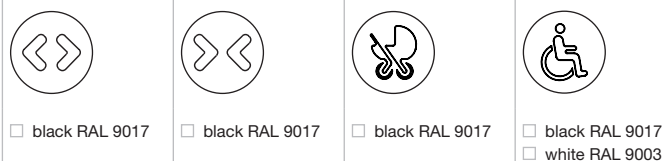
Symbol insert internal

Plastic, colour similar RAL		Aluminium
☐ green RAL 6032	☐ red RAL 3000	☐ natural anodized
☐ blue RAL 5015	☐ yellow RAL 1023	
☐ grey RAL 7040	☐ black RAL 9017	
☐ night blue RAL 5022 (wheelchair)		

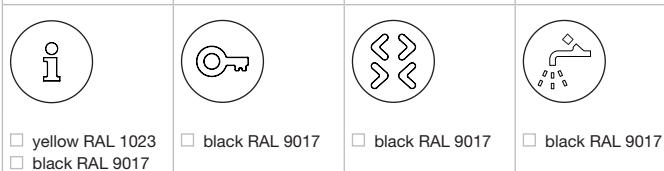
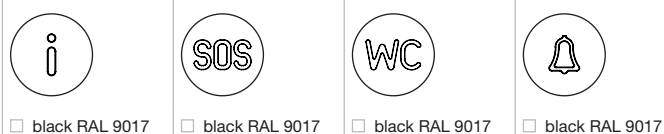
57 Glass mounting

Symbol/Symbol colour similar RAL, external

- ☐ Symbol plastic
☐ Symbol aluminium, natural anodized

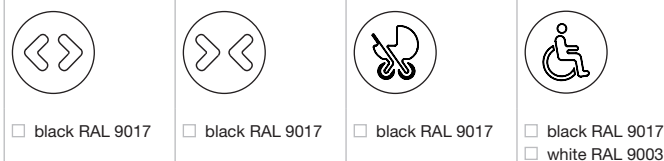


☐ Symbol Aluminium, natural anodized

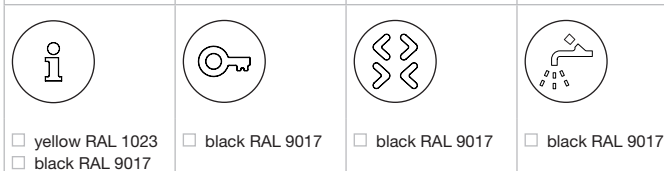
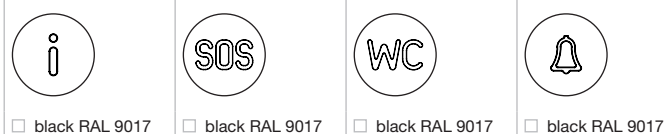


Symbol/Symbol colour similar RAL, internal

- ☐ Symbol plastic
☐ Symbol aluminium, natural anodized



☐ Symbol Aluminium, natural anodized



Finding tone external

- ☐ standard 65 dB (A) ☐ without

Finding tone internal

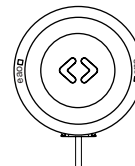
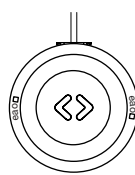
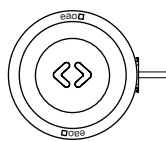
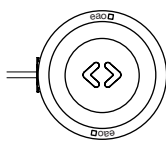
- ☐ standard 65 dB (A) ☐ without

Supply voltage

- ☐ 16 – 63 VDC ☐ 50 – 143 VDC

Cable exit (view from outside)

- ☐ cable exit left ☐ cable exit right ☐ cable exit top ☐ cable exit bottom



Cable cover

Standard

☐ 0°☐ 45°

Funnel

☐ 0°☐ 10°☐ 15°☐ 25°☐ 25° H24**Cable length**☐ A = 200 mm☐ A = 1000 mm☐ A = 2000 mm☐ _____ mm**Cable and Connector type**

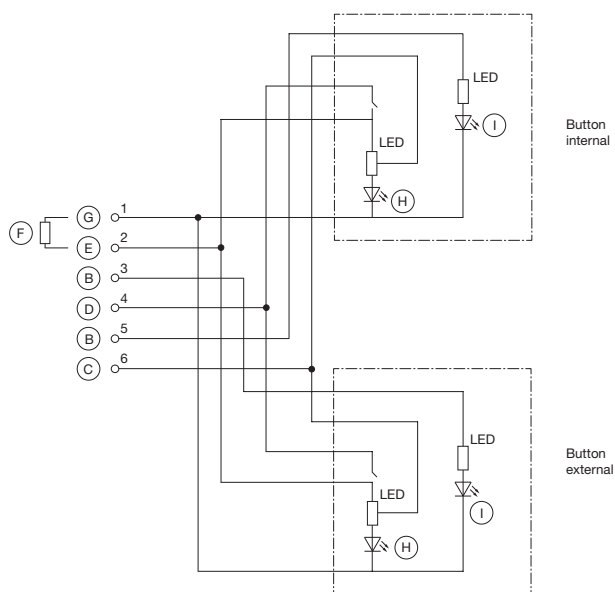
Cable	Wiring diagram	Connector	Connector pin assignment		
☐ 4 x 0.24 mm ²	3	☐ Core end-sleeves		☐ standard	☐ special
☐ 4 x 0.50 mm ²	3	☐ AMP MATE-N-LOK 794805-1 (4P)	1	Pin 1	—
☐ 6 x 0.24 mm ²	1, 2, 4	☐ AMP MATE-N-LOK 794895-1 (6P)	2	Pin 2	—
		☐ WAGO X-COM 769	3	Pin 3	—
		☐ AMP FASTIN-FASTON 180901 (4P)	4	Pin 4	—
		☐ DEUTSCH DT04-4P-C015 (4P)	5	Pin 5	—
		☐ DEUTSCH DT04-6P-C015 (6P)	6	Pin 6	—

Wiring diagram select by function

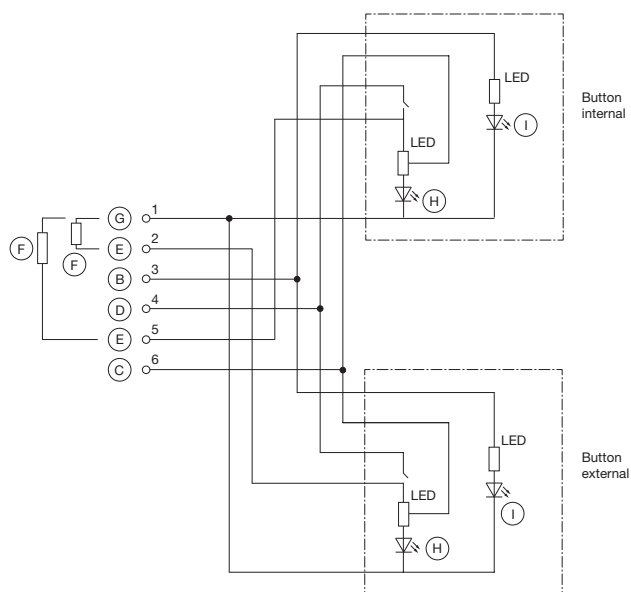
Function	Cable	Wiring diagram
☐ Diagram six pole, switch parallel, LED outer ring separately, LED inner ring parallel, without finding tone	6 x 0.24 mm ²	1
☐ Diagram six pole, switch separately, LED inner ring / outer ring parallel, without finding tone	6 x 0.24 mm ²	2
☐ Diagram four pole, switch parallel, LED outer ring parallel, without finding tone	4 x 0.24 mm ² 4 x 0.50 mm ²	3
☐ Diagram six pole, switch parallel, LED inner ring / outer ring parallel, with finding tone	6 x 0.24 mm ²	4

57 Glass mounting

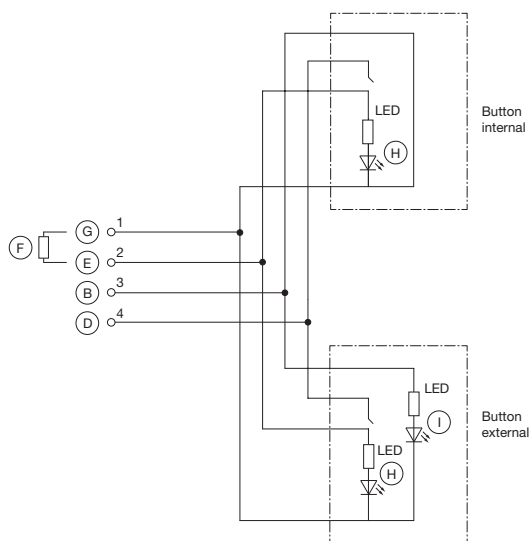
Wiring diagram



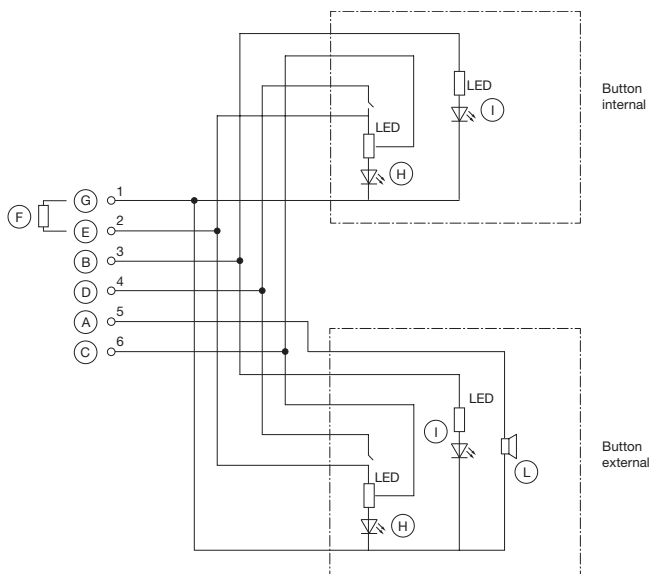
Wiring diagram 1



Wiring diagram 2



Wiring diagram 3



Wiring diagram 4

Legend

- A = VDC finding tone
- B = VDC outer ring
- C = VDC inner ring
- D = VDC
- E = Switch (not potential-free)
- F = Load (max. 250 mA)
- G = 0 V
- H = Inner ring
- I = Outer ring
- L = Finding tone

Front side



Front bezel flush, Front dimension Ø 89 mm

Colour	Front bezel	Part No.
RAL 9017 similar	Pastic black	57-300-000001
RAL 3000 similar	Plastic red	57-300-000007
RAL 1023 similar	Plastic yellow	57-300-000003
RAL 6032 similar	Plastic green	57-300-000004
RAL 5015 similar	Plastic blue	57-300-000002
RAL 7040 similar	Plastic grey	57-300-000005
RAL 5022 similar	Plastic night blue	57-300-000025
RAL 7004 similar	Aluminium natural anodized	57-300-000006
RAL 7004 similar	Aluminium natural anodized, without dismantling opening, only for outside of single-sided or double-sided pushbutton for glass mounting	57-300-000014



Front bezel large, Front dimension Ø 127 mm

Colour	Front bezel	Part No.
RAL 1023 similar	Plastic yellow	57-300-000008
RAL 5015 similar	Plastic blue	57-300-000009



Front bezel safety, Front dimension Ø 99 mm

Colour	Front bezel	Part No.
RAL 3000 similar	Aluminium red anodized	57-300-000011
RAL 6032 similar	Aluminium green anodized	57-300-000024
RAL 1023 similar	Aluminium yellow anodized	57-300-000015



Warning triangle flat, Front dimension 136 x 130 x 0.8 mm

Colour	Front bezel	Part No.
RAL 1023 similar	Plastic yellow, self-adhesive, for cable exit bottom	56-8000.B



Assembly aid Ø 85/45 mm x 15/25 mm

Colour	Front bezel	Part No.
–	Aluminium, assembly aid for warning triangle flat	56-988

57 Components

Cable cover



Cable cover Standard 0°

Material

Part No.

Plastic

57-9907



Cable cover Standard 45°

Material

Part No.

Plastic

57-9908



Cable cover Trichter 0°

Material

Part No.

Plastic

57-9909



Cable cover Trichter 10°

Material

Part No.

Plastic

57-9910



Cable cover Trichter 15°

Material

Part No.

Plastic

57-9911



Cable cover Trichter 25°

Material

Part No.

Plastic

57-9912



Cable cover Trichter 25° H24

Material

Part No.

Plastic

57-9913

Mounting



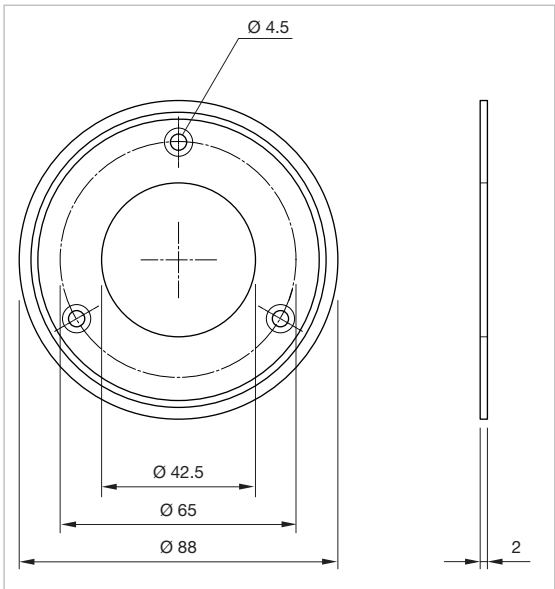
Dismantling tool

Product attributes	Part No.
To front bezel	57-9901



Mounting plate for refurbishment

Dimension	Mounting cut-out	Material	Part No.
Ø 88 mm	Ø 42.5 mm	Stainless steel	57-9905



Abmessungen [mm]

57 Accessories



Mounting set for rear mounting

Product attribute	Art.-Nr.
For front panel thickness 2 mm (front bezel is not required)	57-9920A



Mounting set for rear mounting

Product attribute	Art.-Nr.
For front panel thickness 3 mm (front bezel is not required)	57-9921A



Mounting enclosure flush version

Product attribute	Dimension	Mounting cut-out	Material	Art.-Nr.
Suitable for the most common in-wall flush boxes	100 mm x 100 mm	Ø 45 mm	Plastic black	57-9903



Mounting enclosure surface version

Product attribute	Dimension	Mounting cut-out	Material	Art.-Nr.
For direct wall mounting, with cable relief, break-out cable entries	100 mm x 100 mm	Ø 45 mm	Plastic black	57-9904

Single side pushbutton

Switching system

The Series 57 is equipped with an electronic high side switch, is short circuit proof and overload protected. In case of over current the switch opens automatically (protection against destruction). The pushbutton is not potential-free.

Actuating force
max. 15 N

Actuating travel
~0.5 mm

Mechanical lifetime
> 8 million cycles of operation

Material

Connection cable

Halogen-free, flame retardant, cross-linked by e-beam irradiation
Polymer according to EN 50306-2

Front bezel

Plastic
Aluminium natural anodized

Housing

Plastic

Symbol insert

Plastic
Aluminium natural anodized

Lens/Symbols

Plastic

Mechanical characteristics

Terminals

AMP MATE-N-LOK
WAGO X-COM 769
DEUTSCH connector
AMP FASTIN-FASTON
Open ends with core end-sleeves

Wire cross-section

Wire 4-/6-poles 0.24 mm²
Wire 4-/6-poles 0.5 mm²

Cable length

200 mm, 1000 mm, 2000 mm

Fixing screws

Countersunk screws M4 x 10 mm

Tightening torque

max. 1 Nm

Key (mounting and dismantling)

Hexagon socket wrench size 2.5 mm

Mounting area

No coating errors as orange peel effect, scratches or bubbles are allowed; Flatness 0.2 mm for Ø 90 mm

Electrical characteristics

Illumination

Side-LED green for outer ring
Side-LED red for inner ring

Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination

Finding tone

Standard tone sequence tone 1: 500 Hz, Tone 2: 700 Hz
Volume level (± 4 dB) @ 10 cm, typical at 25 °C
(see graphic in «Application guidelines»)

Units compliant to

EN 60947-5-1
EN 50155
EN14752
EN 45545

EMC

EN 61000-6-2
EN 61000-6-3
EN 50121-3-2
ESD min. 20 kV

Cables according to

EN 50306-2; VDE 0260-306-2
EN 50306-4; VDE 0260-306-4
EN 45545
NFF 63808/NFF 61030
ECE R118

Symbols

TSI PRM (EBC)

Operating voltage

16 ... 63 VDC (min./max.)
50 ... 143 VDC (min./max.)

Switch rating

max. 250 mA

57 Technical data

Standby current

16...63 VDC without tone: < 2 mA @ 24 VDC
50...143 VDC without tone: < 2 mA @ 110 VDC
16...63 VDC with tone: < 10 mA @ 24 VDC
50...143 VDC with tone: < 4 mA @ 110 VDC
16...63 VDC with tone and illumination: < 20 mA @ 24 VDC

Note: Only pin 1 (0 V) und pin 4 (VDC) connected

Electric strength

4000 VAC, 50 Hz, 1 min, between all terminals and mounting plate/
front element

Environmental conditions

Storage temperature

−45 °C ... +90 °C

Operating temperature

−40 °C ... +85 °C

Protection degree

Front side IP69K

Rear side IP67

Impact resistance

IK07

Climate resistance

Damp heat, cyclic

48 hours, +25 °C / 97 %, +55 °C / 93 % relative humidity,
as per EN IEC 60068-2-30

Damp heat, state

56 days, +40 °C / 93 % relative humidity, as per
EN IEC 60068-2-78

Salt spray 96 h (DIN EN 60068-2-11)

Rapid change of temperature

5 cycles, −45 °C ... +90 °C, as per EN IEC 60068-2-14

Shock resistance

50 g, pulse width 11 ms, 6 shocks/axis as per
DIN EN 60068-2-27

Vibration resistance

Broad band noise as per EN 61373 class 1B

10 g from 10 Hz ... 500 Hz, as per DIN EN 60068-2-6

Approvals

Approbations

CCC

E1 Regulation No. 10

E1 118RII

TSI PRM (EBC)

Declaration of conformity

CE

2014/30/EU (EMC)

1300/2014/EU (TSI PRM)

2011/65/EU (RoHS)

Indicator

Material

Connection cable

Halogen-free, flame retardant, cross-linked by e-beam irradiation
Polymer according to EN 50306-2

Lens

Plastic

Front bezel

Plastic

Aluminium natural anodized

Housing

Plastic

Mechanical characteristics

Terminals

AMP MATE-N-LOK

WAGO X-COM 769

DEUTSCH connector

AMP FASTIN-FASTON

Open ends with core end-sleeves

Wire cross-section

Cable 2-poles 0.5 mm²

Cable 4-poles 0.5 mm²

Cable length

200 mm, 1000 mm, 2000 mm

Fixing screws

Countersunk screws M4 x 10 mm

Tightening torque

max. 1 Nm

Key (mounting and dismantling)

Hexagon socket wrench size 2.5 mm

Mounting area

No coating errors as orange peel effect, scratches or bubbles are allowed; Flatness 0.2 mm for Ø 90 mm

Electrical characteristics

Illumination

Single colour: LED red, yellow, green, blue, white

Bi-colour: LED red/yellow, red/green, blue/white

Supply voltage 24 VDC ±30 %
 110 VDC ±30 %

Current consumption <60 mA

Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination.

Units compliant to

EN 50155

EN 45545

EMC

EN 61000-6-2

EN 61000-6-3

EN 50121-3-2

Cables according to

EN 50306-2; VDE 0260-306-2

EN 50306-4; VDE 0260-306-4

EN 45545

NFF 63808/NFF 61030

ECE R118

Environmental conditions

Storage temperature

−45 °C ... +90 °C

Operating temperature

−40 °C ... +85 °C

Protection degree

Front side IP69K

Rear side IP67

Impact resistance

IK07

Climate resistance

Damp heat, state

56 days, + 40 °C / 93 % relative humidity,

as per EN IEC 60068-2-78

Rapid change of temperature

5 cycles, −45 °C ... +90 °C, as per EN IEC 60068-2-14

Shock resistance

(semi-sinusoidal)

max. 500 m/s², pulse width 11 ms, as per EN IEC 60068-2-27

Vibration resistance

(sinusoidal)

max. 100 m/s² at 10 Hz ... 500 Hz, as per EN IEC 60068-2-6

Approvals

Approbations

CCC

E1 118RII

Declaration of conformity

CE

2014/30/EU (EMC)

1300/2014/EU (TSI PRM)

2011/65/EU (RoHS)

Warning indicator

Material

Connection cable

Halogen-free, flame retardant, cross-linked by e-beam irradiation
Polymer according to EN 50306-2

Lens

Plastic

Front bezel

Plastic
Aluminium natural anodized

Housing

Plastic

Mechanical characteristics

Terminals

AMP MATE-N-LOK
WAGO X-COM 769
DEUTSCH connector
AMP FASTIN-FASTON
Open ends with core end-sleeves

Wire cross-section

Cable 2-poles 0.5 mm²

Cable length

200 mm; 1000 mm; 2000 mm

Fixing screws

Countersunk screws M4 x 10 mm

Tightening torque

max. 1 Nm

Key (mounting and dismantling)

Hexagon socket wrench size 2.5 mm

Mounting area

No coating errors as orange peel effect, scratches or bubbles are allowed; Flatness 0.2 mm for Ø 90 mm

Electrical characteristics

Illumination

LED red, yellow

Supply voltage 24 VDC ± 30 v%
110 VDC ± 30 %

Current consumption < 50 mA

Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination.

Units compliant to

EN 50155

EMC

EN 61000-6-2

EN 61000-6-3

EN 50121-3-2

Cables according to

DIN EN 50306-2; VDE 0260-306-2

DIN EN 50306-4; VDE 0260-306-4

EN 45545

NFF 63808/NFF 61030

ECE R118

Environmental conditions

Storage temperature

−45 °C ... +90 °C

Operating temperature

−40 °C ... +85 °C

Protection degree

Front side IP69K

Rear side IP67

Impact resistance

IK07

Climate resistance

Damp heat, state

56 days, +40 °C/93 % relative humidity,

as per EN IEC 60068-2-78

Rapid change of temperature

5 cycles, −45 °C ... +90 °C, as per EN IEC 60068-2-14

Shock resistance

(semi-sinusoidal)

max. 500 m/s², pulse width 11 ms, as per EN IEC 60068-2-27

Vibration resistance

(sinusoidal)

max. 100 m/s² at 10 Hz ... 500 Hz, as per EN IEC 60068-2-6

Approvals

Approbations

CCC

E1 118RII

Declaration of conformity

CE

2014/30/EU (EMC)

1300/2014/EU (TSI PRM)

2011/65/EU (RoHS)

Multi-Tone Warning Indicator

Material

Connection cable

Halogen-free, flame retardant, cross-linked by e-beam irradiation
Polymer according to EN 50306-2

Front cap

Plastic black according to UL94 V0

Lens

Plastic transparent

Front bezel

Plastic according to UL94 V0
Aluminium natural anodized

Housing

Plastic according to UL94 V0

Mechanical characteristics

Terminals

AMP MATE-N-LOK
WAGO X-COM 769-106
DEUTSCH DT04-6P-C015
M8x1, 6-poles
Open ends with core end-sleeves

Wire cross-section

Wire 6-poles 0.24 mm²
Wire 6-poles 0.5 mm²

Cable length

200 mm, 1000 mm, 2000 mm

Fixing screws

For front mounting countersunk screws M4 x 10 mm

Tightening torque

max. 1 Nm

Key (mounting and dismantling)

Hexagon socket wrench size 2.5 mm

Electrical characteristics

Illumination

Single colour: 18 LEDs red, yellow, blue, white
Bi-colour: 9/9 LEDs red/yellow, red/green

Operating voltage 24 VDC (–30 % ... +25 %)
Current consumption depending on voltage and volume
< 100 mA for the 3-tone sequences module
< 75 mA for passive loudspeakers

Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination.

Electric strength

4000 VAC, 50 Hz, 1 min, between all terminals and mounting plate/front element

Units compliant to

EN 50155
EN 14752
EN 45545

EMC

EN 61000-6-2
EN 61000-6-3
EN 50121-3-2
ESD according to EN 61000-4-2 ±20 kV
Regulation no. EMV 06 (radio compatibility of Deutsche Bahn)

Cable

DIN EN 50306-2; VDE 0260-306-2
DIN EN 50306-4; VDE 0260-306-2
EN 45545
ECE R118

Acoustic characteristics

3-Tone sequences

The volume of each tone sequence can be changed in 17 steps of 1.5 dB each, by means of the tone-editing programme or “external” by wire. Tone sequence 1 and 2 are being activated by wire, whereby sequence 3 is being activated binarily. The tones can be played in any sequence at different volumes, durations and intervals. Programmable according to TSI PRM.

Passive loudspeaker

In contrast to the version with tone sequences, the loudspeaker requires an external signal source with amplification.
Impedance: 8 Ohm ± 15 %, rated power 1.0 W, max. power 1.5 W

Frequency range

500 Hz ... 3000 Hz ± 1 (3-tone sequences module)
30 Hz ... 20000 Hz (passive loudspeaker)

Length of time

0 ... ∞ (endless)

Sound pressure level

3-tone sequences module:
90 dB (A) 10 cm @ 1 kHz
Level 17 for 3-tone sequences Module
programmable according to TSI PRM.

Passive speaker:

98 ± 3 dB @ 1 W @ 10 cm

57 Technical data

Environmental conditions

Storage temperature

−45 °C ... +90 °C

Operating temperature

−40 °C ... +80 °C

Protection degree

IP69K front side

IP67 rear side

Impact resistance

IK07

Climate resistance

Damp heat, cyclic

48 hours, +25 °C/97 %, +55 °C/93 % relative humidity,
as per EN IEC 60068-2-30

Damp heat, state

56 days, +40 °C/93 % relative humidity, as per
EN IEC 60068-2-78

Rapid change of temperature

5 cycles, −45 °C ... +90 °C, as per EN IEC 60068-2-14

Shock resistance

(semi-sinusoidal)

500 m/s², pulse width 11 ms, 6 shocks/axis as per

DIN EN 60068-2-27

Vibration resistance

(semi-sinusoidal)

max. 100 m/s² from 10 Hz ... 500 Hz,

according to EN IEC 60068-2-6

Broad band noise as per EN 61373 class 1B

5.72 m/s² 5 h per axis, according to EN IEC 60068-2-6

Approvals

Conformities

CE

2014/30/EU (EMC)

1300/2014/EU (TSI PRM)

2011/65/EU (RoHS)

Call for aid pushbutton

Switching system

The Series 57 is equipped with an electronic high side switch, is short circuit proof and overload protected. In case of over current the switch opens automatically (protection against destruction).

The pushbutton is not potential-free.

Material

Connection cable

Halogen-free, flame retardant, cross-linked by e-beam irradiation

Polymer according to EN 50306-2

Front bezel

Aluminium anodized

Plastic

Housing

Plastic

Symbol insert

Plastic

Aluminium anodized

Lens / Symbols

Plastic

Mechanical characteristics

Terminals

AMP MATE-N-LOK

WAGO X-COM 769

DEUTSCH connector

AMP FASTIN-FASTON

Open ends with core end-sleeves

Wire cross-section

Wire 4-/6-poles 0.24 mm²

Wire 4-/6-poles 0.5 mm²

Cable length

200 mm, 1000 mm, 2000 mm

Fixing screws

Countersunk screws M4 x 10 mm

Tightening torque

max. 1 Nm

Key (mounting and dismantling)

Hexagon socket wrench size 2.5 mm

Mounting area

No coating errors as orange peel effect, scratches or bubbles are allowed; Flatness 0.2 mm for Ø 90 mm

Actuating force

max. 15 N

Actuating travel

~0.5 mm

Mechanical lifetime

> 8 million cycles of operation

Electrical characteristics

Illumination

Side-LED yellow or green for outer ring

Side-LED yellow or red for inner ring

Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination

Finding tone

Standard tone sequence tone 1: 500 Hz, Tone 2: 700 Hz

Volume level (± 4 dB) @ 10 cm, typical at 25 °C

(see graphic in «Application guidelines»)

Units compliant to

EN 60947-5-1

EN 50155

EN 16584-1

EN 16584-2

EN 16683

EMV

EN 61000-6-2

EN 61000-6-3

EN 50121-3-2

ESD mind. 20 kV

EN 45545

Cables according to

EN 50306-2; VDE 0260-306-2

EN 50306-4; VDE 0260-306-4

EN 45545

NFF 63808 / NFF 61030

ECE R118

Symbole

TSI PRM (EBC)

Operating voltage

16 ... 63 VDC (min./max.)

Switch rating

max. 250 mA

Standby current

16 ... 63 VDC: < 2 mA @ 24 VDC

Note: Only pin 1 (0 V) und pin 4 (VDC) connected

Electric strength

4000 VAC, 50 Hz, 1 min, between all terminals and mounting plate / front element

Environmental conditions

Storage temperature

-45 °C ... +90 °C

Operating temperature

-40 °C ... +85 °C

Protection degree

Front side IP69K

Rear side IP67

Impact resistance

IK07

Climate resistance

Damp heat, cyclic

48 hours, +25 °C / 97 %, +55 °C / 93 % relative humidity, as per EN IEC 60068-2-30

Damp heat, state

56 days, +40 °C / 93 % relative humidity, as per

EN IEC 60068-2-78

Salt spray 96 h (DIN EN 60068-2-11)

Rapid change of temperature

5 cycles, -45 °C ... +90 °C, as per EN IEC 60068-2-14

Shock resistance

50 g, pulse width 11 ms, 6 shocks/axis as per

DIN EN 60068-2-27

Vibration resistance

Broad band noise as per EN 61373 class 1B

10 g from 10 Hz ... 500 Hz, as per DIN EN 60068-2-6

Approvals

Approbations

CCC

E1 Regulation No. 10

E1 118RII

TSI PRM (EBC)

Declaration of conformity

CE

2014/30/EU (EMC)

1300/2014/EU (TSI PRM)

2011/65/EU (RoHS)

57 Technical data

Pushbutton Glass mounting

Switching system

The Series 57 is equipped with an electronic high side switch, is short circuit proof and overload protected. In case of over current the switch opens automatically (protection against destruction). The pushbutton is not potential-free.

Material

Connection cable

Halogen-free, flame retardant, cross-linked by e-beam irradiation
Polymer according to EN 50306-2

Front bezel

Plastic
Aluminium natural anodized

Housing

Plastic

Flange

Plastic

Symbol insert

Plastic
Aluminium natural anodized

Lens / Symbols

Plastic

Mechanical characteristics

Terminals

AMP MATE-N-LOK
WAGO X-COM 769
DEUTSCH connector
AMP FASTIN-FASTON
Open ends with core end-sleeves

Wire cross-section

Wire 4-/6-poles 0.24 mm²
Wire 4-/6-poles 0.5 mm²
Wire 6 x 0.5 mm² (single side pushbutton)

Cable length

200 mm, 1000 mm, 2000 mm

Fixing screws

Single side pushbutton: PT head screw Torx K30x20
Double side pushbutton: PT head screw Torx K30x10
The screws are included in delivery.

Tightening torque

Single side pushbutton: max. 0.7 Nm
Double side pushbutton: max. 0.5 Nm

Key (mounting and dismantling)

Single side pushbutton: Torx plus 8 IP
Double side pushbutton: Torx plus 10 IP

Actuating force

max. 15 N

Actuating travel

~0.5 mm

Mechanical lifetime

> 8 million cycles of operation

Electrical characteristics

Illumination

Side-LED green for outer ring
Side-LED red for inner ring

Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination

Finding tone

Standard tone sequence tone 1: 500 Hz, Tone 2: 700 Hz
Volume level (± 4 dB) @ 10 cm, typical at 25 °C
(see graphic in «Application guidelines»)

Units compliant to

EN 60947-5-1
EN 50155
EN14752
EN 45545

EMC

EN 61000-6-2
EN 61000-6-3
EN 50121-3-2
ESD min. 20 kV

Cables according to

EN 50306-2; VDE 0260-306-2
EN 50306-4; VDE 0260-306-4
EN 45545
NFF 63808/NFF 61030
ECE R118

Symbols

TSI PRM (EBC)

Operating voltage

16 ... 63 VDC (min./max.)
50 ... 143 VDC (min./max.)

Switch rating

max. 250 mA

Standby current

Single side pushbutton

16 ... 63 VDC without tone: < 2 mA @ 24 VDC

50 ... 143 VDC without tone: < 2 mA @ 110 VDC

16 ... 63 VDC with tone: < 10 mA @ 24 VDC

50 ... 143 VDC with tone: < 4 mA @ 110 VDC

16 ... 63 VDC with tone and illumination: < 20 mA @ 24 VDC

Double side pushbutton

16 ... 63 VDC without tone: < 4 mA @ 24 VDC

50 ... 143 VDC without tone: < 4 mA @ 110 VDC

16 ... 63 VDC with tone: < 20 mA @ 24 VDC

50 ... 143 VDC with tone: < 8 mA @ 110 VDC

Note: Only pin 1 (0 V) und pin 4 (VDC) connected

Electric strength

4000 VAC, 50 Hz, 1 min, between all terminals and mounting plate/
front element

Environmental conditions

Storage temperature

−45 °C ... +90 °C

Operating temperature

−40 °C ... +85 °C

Protection degree

Front side IP69K

Rear side IP67

Cable grommet to door frame IP40

Impact resistance

IK07

Climate resistance

Damp heat, cyclic

48 hours, +25 °C / 97 %, +55 °C / 93 % relative humidity,
as per EN IEC 60068-2-30

Damp heat, state

56 days, +40 °C / 93 % relative humidity, as per
EN IEC 60068-2-78

Salt spray 96 h (DIN EN 60068-2-11)

Rapid change of temperature

5 cycles, −45 °C ... +90 °C, as per EN IEC 60068-2-14

Shock resistance

50 g, pulse width 11 ms, 6 shocks/axis as per
DIN EN 60068-2-27

Vibration resistance

Broad band noise as per EN 61373 class 1B

10 g from 10 Hz ... 500 Hz, as per DIN EN 60068-2-6

Approvals

Approbations

CCC

E1 Regulation No. 10

E1 118RII

TSI PRM (EBC)

Declaration of conformity

CE

2014/30/EU (EMC)

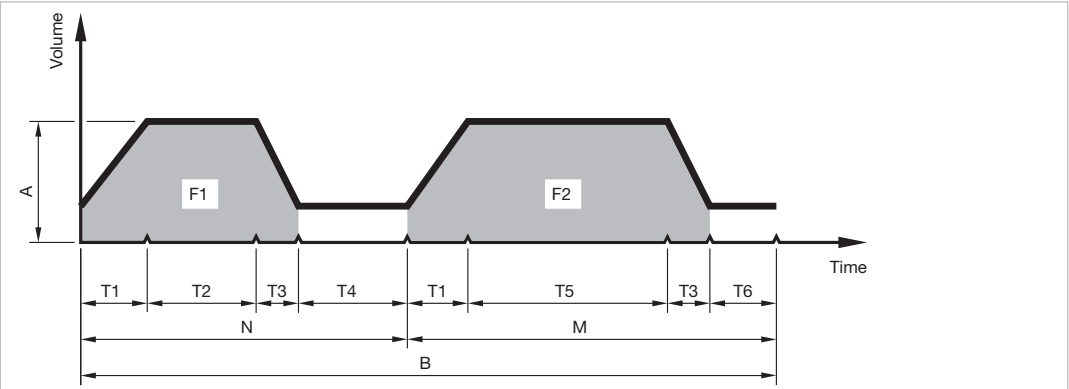
1300/2014/EU (TSI PRM)

2011/65/EU (RoHS)

EAO reserves the right to alter specifications without further notice.

57 Application guidelines

Finding tone pushbutton

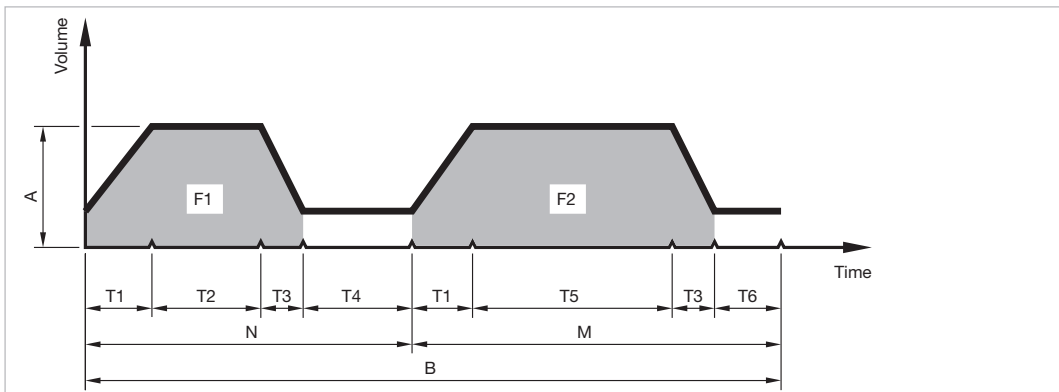


Diagram

F1	Frequency 1 of a tone sequence
T2	Playing time tone 1
T4	Break
N	Number of repetitions of tone 1
F2	Frequency 2 of a tone sequence
T5	Playing time tone 2
T6	Break
M	Number of repetitions of tone 2
A	Volume level (± 4 dB) @ 10 cm, typical at 25°C
B	Number of repetitions of the complete tone sequence, or blockage of the tone sequence
T1	Fade-in tone 1 and 2
T3	Fade-out tone 1 and 2

Tone sequence		
	Parameter	Standard Finding tone
Tone 1	F1	500 Hz
	T2	100 ms
	T4	200 ms
	N	1
Tone 2	F2	700 Hz
	T5	100 ms
	T6	900 ms
	M	1
General	A	65 dB (A)
	B	∞
	T1	100 ms
	T3	100 ms

Multi-Tone Warning Indicator, 3-Tone sequence module



Diagram

F1	Frequency 1 of a tone sequence
T2	Playing time tone 1
T4	Break
N	Number of repetitions of tone 1
F2	Frequency 2 of a tone sequence
T5	Playing time tone 2
T6	Break
M	Number of repetitions of tone 2
A	Volume level (± 4 dB) @ 10 cm, typical at 25 °C
B	Number of repetitions of the complete tone sequence, or blockage of the tone sequence
T1	Fade-in tone 1 and 2
T3	Fade-out tone 1 and 2

Tone sequences 1-5 Transportation (T)						
	Parameter	Sequence 1 Door orientation signal	Sequence 2 Door opening signal	Sequence 3 Warning signal for door closing	Sequence 4 Door out of order signal	Sequence 5 Hussle Alarm
Tone 1	F1	500 Hz	800 Hz	2000 Hz	1400 Hz	875 Hz
	T2	500 ms	300 ms	500 ms	50 ms	1000 ms
	T4	900 ms	700 ms	200 ms	100 ms	250 ms
	N	∞	1	∞	3	3
Tone 2	F2	deactivated	830 Hz	deactivated	deactivated	deactivated
	T5	deactivated	500 ms	deactivated	deactivated	deactivated
	T6	deactivated	0 ms	deactivated	deactivated	deactivated
	M	deactivated	1	deactivated	deactivated	deactivated
General	A	3 / 78 dB (A)	3 / 78 dB (A)	5 / 90 dB (A)	3 / 78 dB (A)	3 / 78 dB (A)
	B	∞	∞	1	1	1
	T1	0 ms	0 ms	0 ms	0 ms	0 ms
	T3	0 ms	0 ms	0 ms	0 ms	0 ms

57 Application guidelines

Tone sequences 1-3 Transportation (T1)

	Parameter	Sequence 1 Door enabled	Sequence 2 Door closing	Sequence 3 Signal for visual impaired people
Tone 1	F1	1500 Hz	1900 Hz	600 Hz
	T2	∞	50 ms	50 ms
	T4	250 ms	50 ms	20 ms
	N	∞	∞	2
Tone 2	F2	deactivated	deactivated	500 Hz
	T5	deactivated	deactivated	1000 ms
	T6	deactivated	deactivated	900 ms
	M	deactivated	deactivated	1
General	A	17 / 90 db (A)	17 / 90 dB (A)	9 / 78 dB (A)
	B	∞	∞	∞
	T1	0 ms	0 ms	0 ms
	T3	0 ms	0 ms	0 ms

Tone sequences 6-10 Machinery (M)

	Parameter	Sequence 6	Sequence 7	Sequence 8	Sequence 9	Sequence 10
Tone 1	F1	750 Hz	2500 Hz	2000 Hz	2500 Hz	1000 Hz
	T2	100 ms	300 ms	250 ms	100 ms	500 ms
	T4	200 ms	500 ms	200 ms	100 ms	100 ms
	N	1	1	1	2	1
Tone 2	F2	500 Hz	2000 Hz	1000 Hz	2000 Hz	1500 Hz
	T5	450 ms	500 ms	250 ms	100 ms	500 ms
	T6	100 ms	400 ms	200 ms	100 ms	100 ms
	M	1	1	1	2	1
General	A	4 / 84 dB (A)	4 / 84 dB (A)	5 / 90 dB (A)	5 / 90 dB (A)	4 / 84 dB (A)
	B	∞	∞	∞	∞	∞
	T1	0 ms	0 ms	0 ms	0 ms	0 ms
	T3	200 ms	0 ms	500 ms	0 ms	0 ms

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