# Series **56**

#### Characteristics

The compact Series 56 is especially suited for:

- Front mounting
- Rear mounting
- Glass mounting

It is characterised by a large ring illumination and an excellent tactile feel.

#### Functions

The Series 56 incorporates the following functions:

- Indicator
- Pushbutton
- Illuminated pushbutton
- Lever switch
- Sound module
- Flashing warning beacon

#### Market segments

The EAO Series 56 is especially suited for applications in the segments:

- Public transportation
- Building technology

Please refer to the EAO website to obtain detailed information regarding this series **www.products.eao.com** Configure a product to your exact needs and request a quotation.



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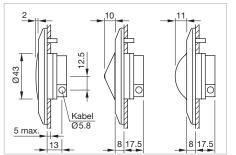
#### Single side indicator



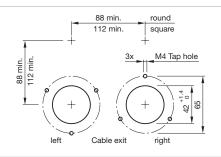
The preview is based on a sample product. This can differ from your current configuration.

#### Additional Information

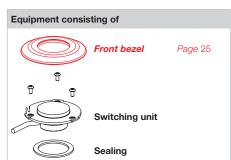
Please fill in the form and forward it to your local EAO partner by e-mail or fax. The electronic form is available at <a href="http://www.eao.com/offer56">http://www.eao.com/offer56</a>



Dimensions [mm] [mm]



Mounting cut-outs [mm]



Each part listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

#### Front cap Plastic colourless flush Plastic colourless raised □ Plastic colourless half round Marking (Text or symbol) $\square$ without marking 🗆 1 line symbol with marking 🗆 2 line 🗆 3 line Example: Example: Example: Door Door Open out of close order 3 2 Illumination □ LED green LED red LED yellow LED white LED blue

0	,		
Supply voltage illumination			
24 VDC		□ 110 VDC	

Tolerance +25 % ... -30 %

4

Cable exit						
□ cable exit right			cable exit left			
Cable length						
□ A = 200 mm	□ A = 500 mm	□ A = 1000 mm		□ A = 1500 mm	□ mm	
		·				
Cable and Connector type						
Cable			Connector			
□ 2x0.24mm <sup>2</sup>			Core end-slee	eves		
			AMP Connector Mate-N-Lok (Wiring diagram 2)			
			DEUTSCH co	onnector (Wiring diagram 2)		

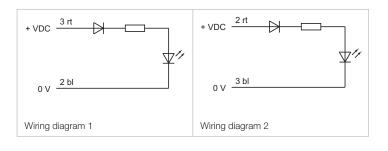
#### Housing

□ housing D73 (standard)	□ housing reworked 50x50mm	□ housing reworked 68.5 x 50 mm					

AMP Connector 2.8x0.8 (Wiring diagram 1)
 AMP Connector 6.3x0.8 (Wiring diagram 2)

The drawings you will find from page 36

The component layout No. 1 you will find from page 36



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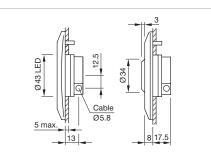
#### Single side pushbutton



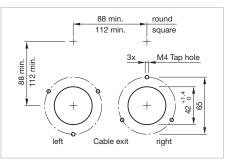
The preview is based on a sample product. This can differ from your current configuration.

#### Additional Information

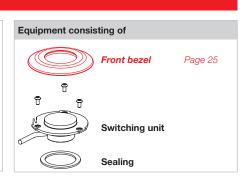
 Please fill in the form and forward it to your local EAO partner by e-mail or fax. The electronic form is available at <u>http://www.eao.com/offer56</u>



Dimensions [mm]



Mounting cut-outs [mm]



Each part listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Lens		
□ flush, plastic	□ flush, aluminium	□ raised, aluminium
□ green RAL 6024	□ naturel	□ naturel
□ red RAL 3020	□ green	□ green
□ blue RAL 5017		
□ yellow RAL 1023	□ blue	
□ grey RAL 7040	□ yellow	□ yellow
□ black RAL 9017	□ black	black
□ orange RAL 2003		

Lens marking without symbol						
□ with symbol aluminium, raised (milled)			B		C	
	□ Symbol-No. 00.835	□ Symbol-No. 00.836	<ul> <li>Symbol-No.</li> <li>00.868</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.869</li> </ul>	<ul> <li>Symbol-No.</li> <li>40089</li> </ul>	Symbol-No. 60523
<ul><li>with symbol aluminium, flat (engraved/lasered)</li><li>with symbol plastic, flat (engraved/lasered)</li></ul>			$\langle \langle \rangle \rangle$	$() \langle \langle \rangle \langle \rangle \rangle$	E	
	□ Symbol-No. 00.835	□ Symbol-No. 00.836	<ul> <li>Symbol-No.</li> <li>00.868</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.869</li> </ul>	<ul> <li>Symbol-No.</li> <li>40089</li> </ul>	Symbol-No. 60523
Symbol colour	□ black			□ white		

mammadon						
without illumination						
with illumination	🗆 8 green	🗆 8 red	□ 8 blue	□ 8 yellow	□ 8 green/2 red	□ 8 red/2 green

Supply voltage illumination							
□ 24 VDC	□ 36 VDC	□ 48 VDC	□ 72 VDC	□ 110 VDC			

Tolerance +25 % ... -30 %

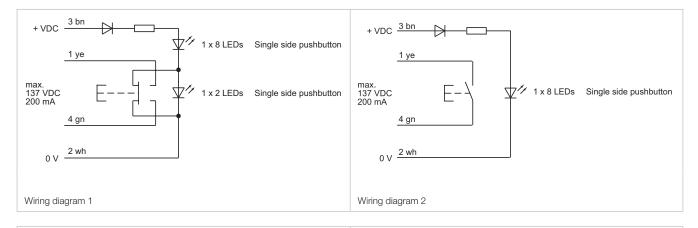
Cable exit						
□ cable exit right			□ cable exit	left		
Cable length						
□ A = 200 mm	□ A = 500 mm	□ A = 1000mm		□ A = 1500mm	□	mm
	, 			'		
Cable and Connector typ	e					
Cable			Connector			
2x0.5 mm² (Wiring diagra	am 5)		□ core end-sleeves			
□ 4x0.5mm² (Wiring diagra	am 1, 2, 3, 4)		□ AMP Connector Mate-N-Lok (Wiring diagram 3, 4)			
			DEUTSCH	l connector (Wiring diagram 3, 4)		
			AMP Conr	nector 2.8x0.8 (Wiring diagram 1, 2	)	
			AMP Conr	nector 6.3x0.8 (Wiring diagram 3, 4	)	
			1			

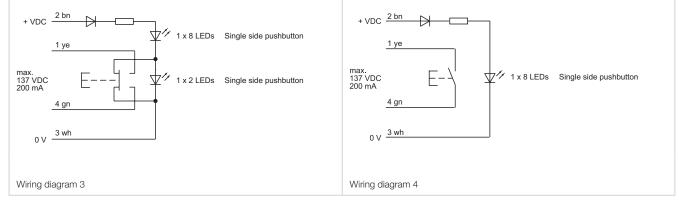
#### Housing

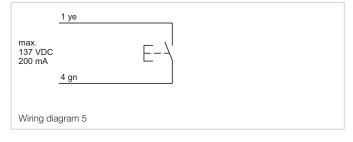
housing D73 (standard)	□ housing reworked 50 x 50 mm	□ housing reworked 68.5 x 50 mm
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The drawings you will find from page 36

The component layouts No. 2 and 3 you will find from page 36







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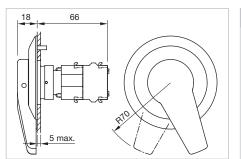
#### Lever switch



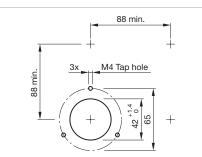
The preview is based on a sample product. This can differ from your current configuration.

#### Additional Information

- Lever aluminium naturel anodized
- Two switching positions
- Switching action: 0-maintain
- 45° switching angle
- Switching element see technical data Series 04



Dimensions [mm]



Mounting cut-outs [mm]

 Equipment consisting of

 Lever
 Page 25

 Front bezel
 Page 25

 V
 Actuator

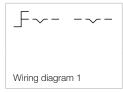
 Sealing
 Bayonet flange

 Switching element
 Page 27

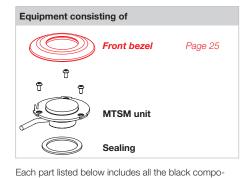
Each part listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Part No.	Weight
704.107.1	0.314 kg



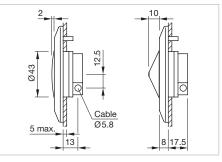
#### **Multi-Tone Sound Module**



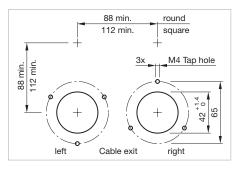
To obtain a complete unit, please select the red com-

nents shown in the 3D-drawing.

ponents from the pages shown.



Dimensions [mm]



Mounting cut-outs [mm]



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

#### Additional Information

- The descriptions of the standard tone sequences see «Application guidelines»
- Please fill in the form and forward it to your local EAO partner by e-mail or fax. The electronic form is available at <u>http://www.eao.com/offer56</u>

Front cap								
Plastic black flush				□ Plastic black raised				
Front cap marking								
without symbol			□ with symbol					
Volume adjustment								
□ Manually (3-/5-Tone Sequences Module)			Automatically	/ (6-Tone Se	equences Module)			
Tone sequence		1						
□ 3-tone		□ 5-tone				G-tone		
Supply voltage								
□ 24 VDC (5-Tone Sequences M	odule)	□ 166	3 VDC (3-/6-Tone	Sequences Mod	ule)	□ 50143 VDC (3-/	6-Tone Sequ	ences Module)
Tolerance ±30 %								
Cable exit								
□ cable exit right				□ cable exit left				
Cable length								
□ A = 200 mm	□ A = 500 mm		□ A = 1000 mm	٦	□ A = 150	00mm	□	_ mm

9

Cable and Connector type				
Cable	Connector			
□ 4x0.25mm <sup>2</sup>	□ core end-sleeves			
□ 4x0.5mm <sup>2</sup>	AMP Connector Mate-N-Lok			
□ 6x0.5mm <sup>2</sup>	DEUTSCH connector			
	AMP Connector 2.8x0.8			
	AMP Connector 6.3x0.8			

#### Housing

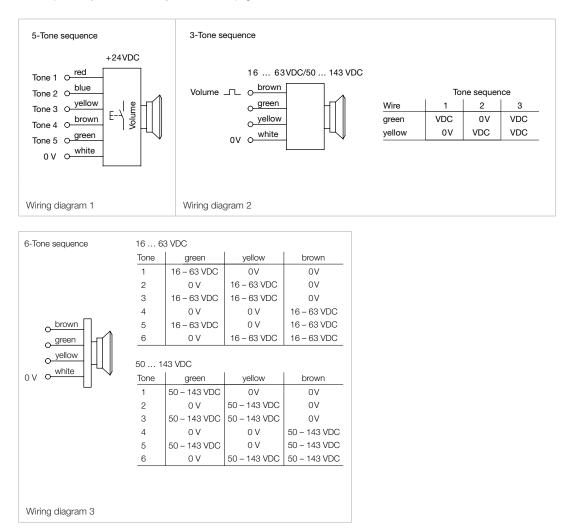
□ housing D73 (standard)

□ housing reworked 50x50mm

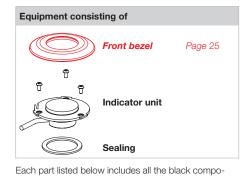
□ housing reworked 68.5 x 50 mm

The drawings you will find from page 36

The component layouts No. 4 and 5 you will find from page 36



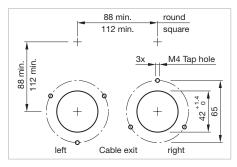
#### Flashing warning beacon



To obtain a complete unit, please select the red com-

10 5 max. 8 17.5

#### Dimensions [mm]



Mounting cut-outs [mm]

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

#### Additional Information

 Please fill in the form and forward it to your local EAO partner by e-mail or fax. The electronic form is available at <u>http://www.eao.com/offer56</u>

#### Front cap

Plastic colourless raised

nents shown in the 3D-drawing.

ponents from the pages shown.

#### Illumination

□ LED white

#### Supply voltage

24 VDC

Tolerance ±30 %

#### Cable exit

cable exit right

cable exit left

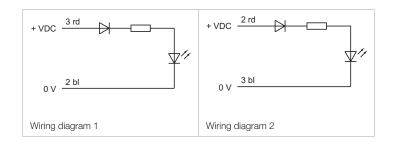
#### Cable length

oublo longui								
□ A = 200 mm	□ A = 500 mm	□ A = 1000 mm	□ A = 1500 mm	□ mm				

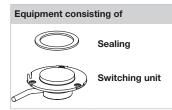
Cable and Connector type					
Cable	Connector				
□ 2x0.24mm <sup>2</sup>	□ core end-sleeves				
	AMP Connector Mate-N-Lok (Wiring diagram 2)				
	DEUTSCH connector (Wiring diagram 2)				
	AMP Connector 2.8x0.8 (Wiring diagram 1)				
	□ AMP Connector 6.3 x 0.8 (Wiring diagram 2)				

Housing		
□ housing D73 (standard)	□ housing reworked 50x50mm	□ housing reworked 68.5 x 50 mm

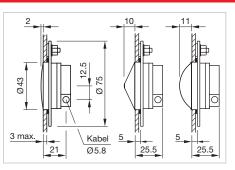
The drawings you will find from page 36 The component layout No. 1 you will find from page 36



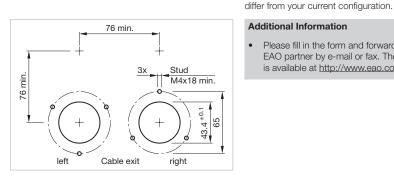
#### Single side indicator



Each part number listed below includes all the black components shown in the 3D-drawing.



Dimensions [mm]

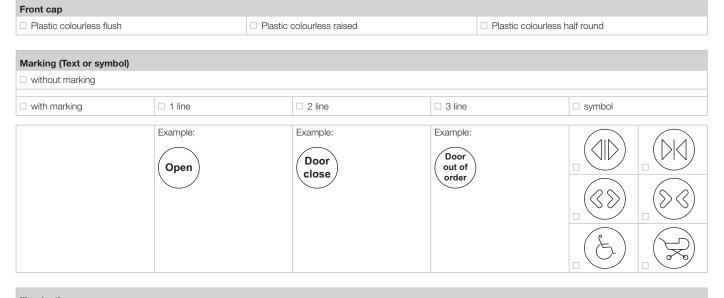


The preview is based on a sample product. This can

#### Additional Information

Please fill in the form and forward it to your local EAO partner by e-mail or fax. The electronic form is available at <u>http://www.eao.com/offer56</u> •

Mounting cut-outs [mm]



Illumination				
LED green	□ LED red	□ LED yellow	□ LED white	LED blue
Supply voltage				
24 VDC		110 VDC		

Tolerance +25 % ... -30 %

### 56 Rear mounting

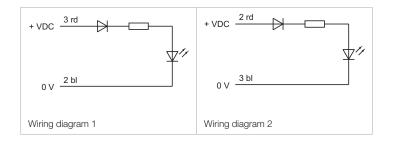
Cable exit						
□ cable exit right			cable exit left			
Cable length						
□ A = 200 mm	□ A = 500 mm	□ A = 1000 mm		□ A = 1500 mm	□	_mm
Cable + Connector type						
Cable			Connector			
□ 2*0.24 mm <sup>2</sup> □ core end-sleeves						
			AMP Connector Mate-N-Lok (Wiring diagram 2)			
	□ DEUTSCH connector (Wiring diagram 2)					
	□ AMP Connector 2.8x0.8 (Wiring diagram 1)					
			AMP Connec	otor 6.3x0.8 (Wiring diagram 2)		

#### Housing

□ housing D73 (standard)	□ housing reworked 50x50mm	□ housing reworked 68.5 x 50 mm
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The drawings you will find from page 36

The component layout No. 1 you will find from page 36

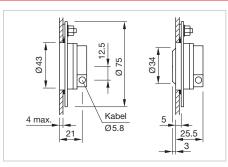


#### Single side pushbutton

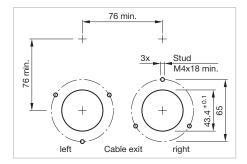
#### Equipment consisting of



Each part listed below includes all the black components shown in the 3D-drawing.



Dimensions [mm]



Mounting cut-outs [mm]



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

#### Additional Information

 Please fill in the form and forward it to your local EAO partner by e-mail or fax. The electronic form is available at <u>http://www.eao.com/offer56</u>

Lens		
□ flush, plastic	□ flush, aluminium	□ raised, aluminium
□ green RAL 6024	□ naturel	naturel
□ red RAL 3020		□ green
□ blue RAL 5017		
□ yellow RAL 1023		
□ light-grey RAL 7040		
□ black RAL 9017	□ black	black
□ orange RAL 2003		

Lens marking						
without symbol						
with symbol aluminium, raised (milled)			B			
	□ Symbol-No. 00.835	<ul> <li>Symbol-No.</li> <li>00.836</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.868</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.869</li> </ul>	<ul> <li>Symbol-No.</li> <li>40089</li> </ul>	<ul> <li>Symbol-No.</li> <li>60523</li> </ul>
<ul> <li>with symbol aluminium, flat (engraved/lasered)</li> <li>with symbol plastic, flat (engraved/lasered)</li> </ul>			$\langle \langle \rangle \rangle$	$(\mathcal{D}\mathcal{C})$	Ŀ	
	<ul> <li>Symbol-No.</li> <li>00.835</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.836</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.868</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.869</li> </ul>	<ul> <li>Symbol-No. 40089</li> </ul>	<ul> <li>Symbol-No.</li> <li>60523</li> </ul>
Symbol colour	□ black			□ white		

## Illumination without illumination with illumination & with illumination & 8 green & 8 green

Supply voltage				
24 VDC	□ 36 VDC	□ 48 VDC	□ 72 VDC	□ 110 VDC

Tolerance +25 % ... -30 %

### 56 Rear mounting

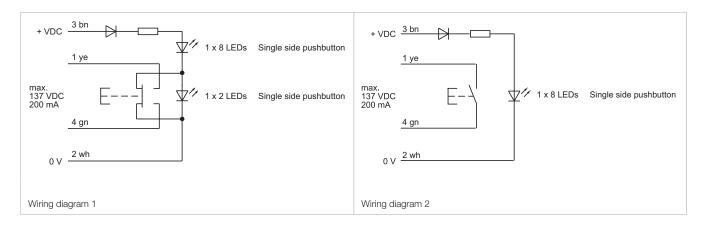
Cable exit						
□ cable exit right			cable exit	left		
Cable length						
□ A = 200 mm	□ A = 500 mm	□ A = 1000 mm		□ A = 1500mm	□ mm	
Cable + Connector type						
Cable			Connector			
2x0.5 mm² (Wiring diagr	2x0.5 mm <sup>2</sup> (Wiring diagram 5)					
□ 4x0.5mm <sup>2</sup> (Wiring diagram 1, 2, 3, 4) □ AMP Connector Mate-N-Lok (Wiring diagram 3, 4)			3, 4)			
		□ DEUTSCH connector (Wiring diagram 3, 4)				
		□ AMP Connector 2.8x0.8 (Wiring diagram 1, 2)				
			AMP Conr	nector 6.3x0.8 (Wiring diagram 3, 4	)	

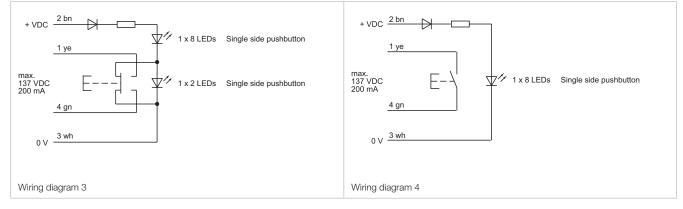
#### Housing

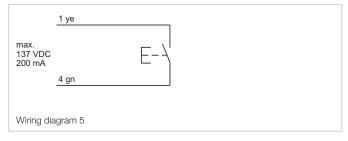
housing D73 (standard)	□ housing reworked 50 x 50 mm	□ housing reworked 68.5 x 50 mm
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The drawings you will find from page 36

The component layout No. 2 you will find from page 36





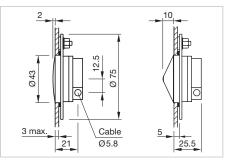


#### **Multi-Tone Sound Module**

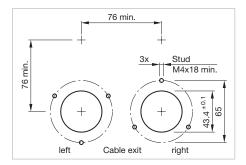
#### Equipment consisting of



Each part listed below includes all the black components shown in the 3D-drawing.



Dimensions [mm]



Mounting cut-outs [mm]



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

#### Additional Information

 Please fill in the form and forward it to your local EAO partner by e-mail or fax. The electronic form is available at <u>http://www.eao.com/offer56</u>

Front cap								
Plastic black flush				Plastic black	raised			
Front cap marking								
without symbol				with symbol				
Volume adjustment								
□ Manually (3-/5-Tone Sequence	s Module)			Automatically	(6-Tone Se	quences Module)		
Tone sequence		1						
□ 3-tone		5-tone				G-tone		
Supply voltage		1						
□ 24 VDC (5-Tone Sequences M	odule)	□ 1663	3 VDC (3-/6-Tone	Sequences Modu	ule)	□ 50143 VDC (3-/	6-Tone Sequ	ences Module)
Tolerance ±30 %								
Cable exit								
□ cable exit right				cable exit left				
Cable length								
□ A = 200 mm	□ A = 500 mm		□ A = 1000 mm		□ A = 150	00 mm	□	_ mm

### 56 Rear mounting

Cable + Connector type	
Cable	Connector
□ 4x0.25mm <sup>2</sup>	□ core end-sleeves
□ 4x0.5mm <sup>2</sup>	AMP Connector Mate-N-Lok
□ 6x0.5mm <sup>2</sup>	DEUTSCH connector
	AMP Connector 2.8x0.8
	AMP Connector 6.3x0.8

#### Housing

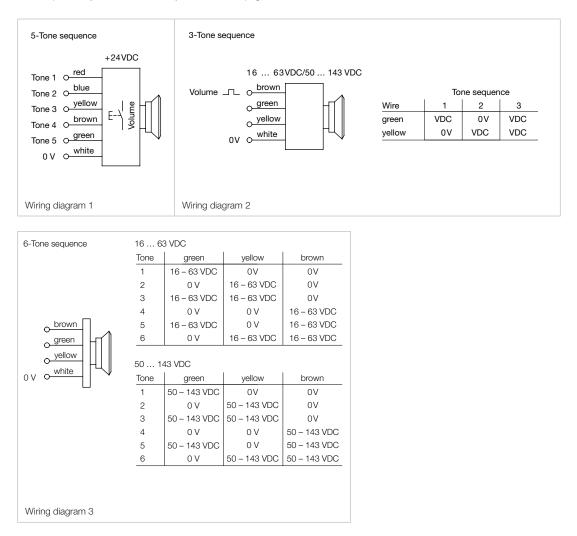
□ housing D73 (standard)

□ housing reworked 50x50mm

□ housing reworked 68.5 x 50 mm

The drawings you will find from page 36

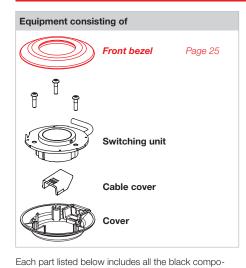
The component layouts No. 4, 5 and 6 you will find from page 36



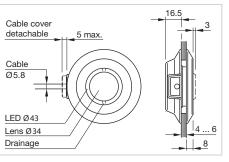
#### Single side pushbutton

nents shown in the 3D-drawing.

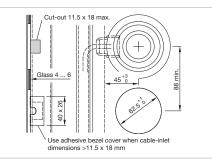
ponents from the pages shown.



To obtain a complete unit, please select the red com-



#### Dimensions [mm]



Mounting cut-outs [mm]



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

#### Additional Information

- Front bezel Ø 87 mm
- Cable exit left
- Housing D73 (standard)
- Other cable cover are available
- Please fill in the form and forward it to your local EAO partner by e-mail or fax. The electronic form is available at <u>http://www.eao.com/offer56</u>

Lens		
□ flush, plastic	🗆 flush, aluminium	□ raised, aluminium
□ green RAL 6024	□ naturel	naturel
□ red RAL 3020	🗆 green	□ green
□ blue RAL 5017		
□ yellow RAL 1023		
□ light-grey RAL 7040	□ yellow	□ yellow
black RAL 9017	□ black	□ black
□ orange RAL 2003		

		Ð			
□ Symbol-No. 00.835	<ul> <li>Symbol-No.</li> <li>00.836</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.868</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.869</li> </ul>	<ul> <li>Symbol-No.</li> <li>40089</li> </ul>	<ul> <li>Symbol-No.</li> <li>60523</li> </ul>
		$\langle \langle \rangle \rangle$	()	E	() or o
<ul> <li>Symbol-No.</li> <li>00.835</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.836</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.868</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.869</li> </ul>	<ul> <li>Symbol-No. 40089</li> </ul>	<ul> <li>Symbol-No.</li> <li>60523</li> </ul>
□ black			□ white		
	00.835	00.835         00.836           Symbol-No.         00.836           00.835         00.836	Symbol-No.       Symbol-No.         00.835       00.836         Symbol-No.       00.836         Symbol-No.       Symbol-No.         Symbol-No.       Symbol-No.         Symbol-No.       Symbol-No.         Symbol-No.       Symbol-No.         Symbol-No.       Symbol-No.         Symbol-No.       Symbol-No.         00.835       Symbol-No.	Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.         00.835       00.836       00.868       00.869         Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.         Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.         Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.         Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.         Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.         Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.         Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.         Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.         Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.         Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Image: Symbol-No.       Imag	Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.         00.835       00.836       00.868       Symbol-No.       Symbol-No.       Symbol-No.         Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.         Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.         Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.         00.835       Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.       Symbol-No.

## Illumination without illumination with illumination & with illumination B green B red B blue B yellow B green/2 red B red/2 green

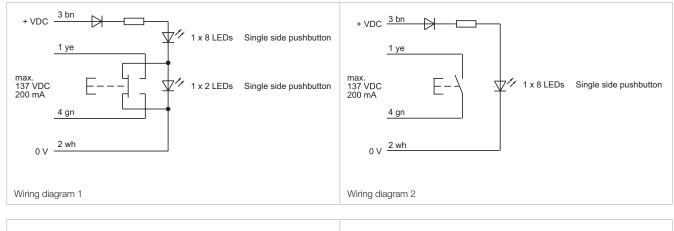
Supply voltage				
□ 24 VDC	□ 36 VDC	□ 48 VDC	□ 72 VDC	□ 110 VDC

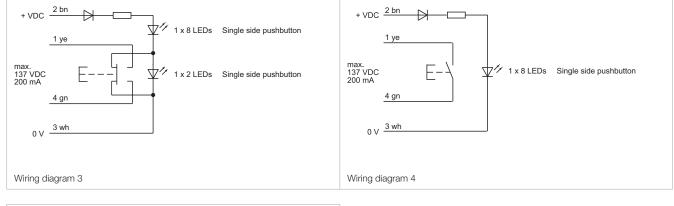
Tolerance +25 % ... -30 %

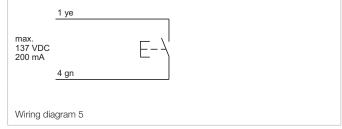
### 56 Glass mounting

Cable length						
□ A = 200 mm	□ A = 500 mm	□ A = 1000 mm		□ A = 1500 mm	□	_ mm
Cable + Connector type						
Cable			Connector			
2x0.5mm² (without illum	ination, wiring diagram 5)		Core end-	sleeves		
□ 4x0.5mm² (Wiring diagr	am 1, 2, 3, 4)		AMP Conr	nector Mate-N-Lok (Wiring diagram	3, 4)	
			DEUTSCH	l connector (Wiring diagram 3, 4)		
			AMP Conr	nector 2.8x0.8 (Wiring diagram 1, 2)	)	
			AMP Conr	nector 6.3×0.8 (Wiring diagram 3, 4)	)	

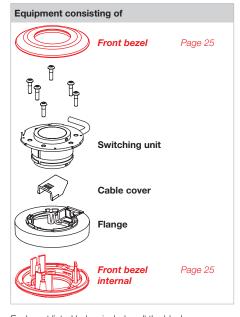
The component layouts No. 2 and 3 you will find from page 36

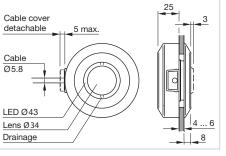






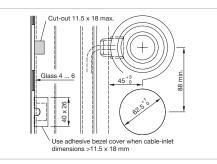
#### Double side pushbutton





Dimensions [mm]

Mounting cut-outs [mm]



Each part listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



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

#### Product features

- Front bezel Ø 87 mm
- Cable exit left
- Housing D73 (standard)
- Please fill in the form and forward it to your local EAO partner by e-mail or fax. The electronic form is available at <u>http://www.eao.com/offer56</u>

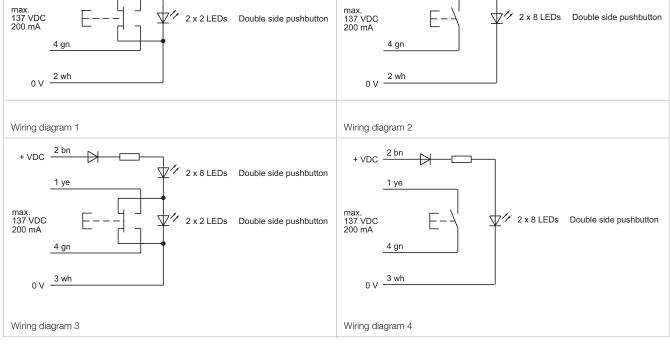
Lens		
□ flush, plastic	flush, aluminium	□ raised, aluminium
Green RAL 6024	naturel	□ naturel
□ red RAL 3020	🗆 green	□ green
□ blue RAL 5017	🗆 red	
□ yellow RAL 1023	🗆 blue	
□ light-grey RAL 7040	□ yellow	□ yellow
□ black RAL 9017	🗆 black	□ black
□ orange RAL 2003		

#### Lens marking

without symbol						
□ with symbol aluminium, raised (milled)			B		Ì	
	□ Symbol-No. 00.835	<ul> <li>□ Symbol-No.</li> <li>00.836</li> </ul>	□ Symbol-No. 00.868	□ Symbol-No. 00.869	<ul> <li>Symbol-No.</li> <li>40089</li> </ul>	□ Symbol-No. 60523
□ with symbol aluminium, flat (engraved/lasered)			$\left( \right) $		(°	
□ with symbol plastic, flat (engraved / lasered)				$(\mathcal{Y} \mathcal{C})$	G	
	<ul> <li>Symbol-No.</li> <li>00.835</li> </ul>	<ul> <li>Symbol-No.</li> <li>00.836</li> </ul>	□ Symbol-No. 00.868	<ul> <li>Symbol-No.</li> <li>00.869</li> </ul>	<ul> <li>Symbol-No.</li> <li>40089</li> </ul>	<ul> <li>Symbol-No.</li> <li>60523</li> </ul>
Symbol colour	D black			□ white		

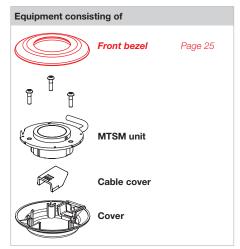
### 56 Glass mounting

Illumination							
$\hfill \square$ without illumination							
$\hfill \square$ with illumination	16 green		16 red		□ 8 red/2 gre	een	□ 8 green/2 red
Supply voltage illumin	nation						
24 VDC				□ 110 VDC			
Tolerance +25 %30 %	%						
Cable length							
$\Box$ A = 200 mm	□ A = 500 mm	□ A =	= 1000 mm		□ A = 1500mm	C	mm
Cable + Connector ty	pe						
Cable				Connector			
□ 2x0.5mm <sup>2</sup> (without i	illumination, wiring diagram 1, 2	)		□ core end-sl	eeves		
□ 4x0.5mm² (Wiring d	iagram 1, 2, 3, 4)			AMP Conn	ector Mate-N-Loł	k (Wiring diagram 3,	4)
				DEUTSCH	connector (Wiring	g diagram 3, 4)	
				AMP Conn	ector 2.8x0.8 (W	iring diagram 1, 2)	
				AMP Conn	ector 6.3x0.8 (W	iring diagram 3, 4)	
The component layouts	No. 2 and 3 you will find from pa	age 36					
+ VDC 3 bn	— <u>—</u> —			+ VDC3 bn			
	2 x 8 LEDs	Double side p	oushbutton				
1 ye				1 ye			
max. —				max.			
137 VDC	2x2LEDs	Double side p	oushbutton	137 VDC	$\vdash - \downarrow$		s Double side pushbutton





#### Multi-Tone Sound Module

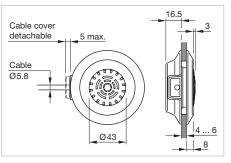


Each part listed below includes all the black compo-

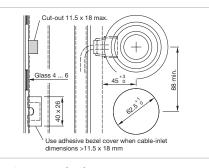
To obtain a complete unit, please select the red com-

nents shown in the 3D-drawing.

ponents from the pages shown.



Dimensions [mm]



Mounting cut-outs [mm]



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

#### Product features

- Front bezel Ø 87 mm
- Cable exit left

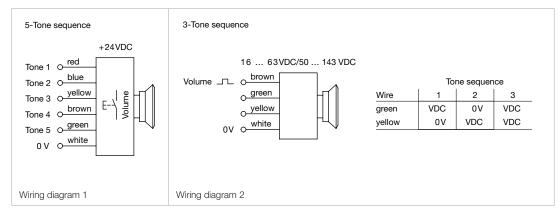
•

- Housing D73 (standard)
- Please fill in the form and forward it to your local EAO partner by e-mail or fax. The electronic form is available at <a href="http://www.eao.com/offer56">http://www.eao.com/offer56</a>

Front cap								
Plastic black flush				Plastic black	raised			
Front cap marking								
□ without symbol				$\square$ with symbol				
Volume adjustment								
□ Manually (3-/5-Tone Sequence	es Module)			Automatically	/ (6-Tone Se	equences Module)		
Tone sequence								
□ 3-tone		🗆 5-tone				G-tone		
Supply voltage								
□ 24 VDC (5-Tone Sequences M	odule)	□ 1663	3 VDC (3-/6-Tone	Sequences Mod	ule)	□ 50143 VDC (3-/	6-Tone Sequ	uences Module)
Tolerance ±30 %								
Cable exit								
□ cable exit right				□ cable exit left				
Cable length								
□ A = 200 mm	□ A = 500 mm		□ A = 1000 mm	ı	□ A = 150	00mm	□	_ mm
Cable + Connector type								
Cable				Connector				
□ 4*0.5mm <sup>2</sup>				Core end-slee	eves			
				AMP Connect	tor Mate-N	-Lok		
				DEUTSCH co	onnector			
				AMP Connec	tor 2.8x0.8	3		
				AMP Connec	tor 6.3x0.8	3		

The component layout No. 5 you will find from page 36

### 56 Glass mounting



6-Tone sequence	16 6	3 VDC		
	Tone	green	yellow	brown
	1	16 - 63 VDC	0V	0V
	2	0 V	16 - 63 VDC	0V
	3	16 - 63 VDC	16 – 63 VDC	٥V
	4	0 V	0 V	16 – 63 VDC
brown	5	16 - 63 VDC	0 V	16 – 63 VDC
green	6	0 V	16 - 63 VDC	16 – 63 VDC
	50 1	43 VDC		
	Tone	green	yellow	brown
	1	50 - 143 VDC	0V	0V
	2	0 V	50 – 143 VDC	0V
	3	50 - 143 VDC	50 – 143 VDC	0V
	4	0 V	0 V	50 – 143 VDC
	5	50 - 143 VDC	0 V	50 – 143 VDC
	6	0 V	50 - 143 VDC	50 – 143 VDC
Wiring diagram 3				

#### Front

#### Front bezel

#### Additional Information

• Special colours for front bezel on request

Product attribute	Colour	Front bezel	Part No.	Weight
Front bezel,	front dimension 87 x 87 m	ım		
For single side indicator and single	RAL 3020	Plastic red	56-2200	0.026 kg
side pushbutton, front mounting	RAL 1023	Plastic yellow	56-2400	0.026 kg
	RAL 6024	Plastic green	56-2500	0.026 kg
	RAL 5017	Plastic blue	56-2600	0.026 kg
		Metal matt chrome	56-4600	0.085 kg
For single side indicator and single	front dimension Ø 87 mm		56-4600 56-1000	0.085 kg
For single side indicator and single side pushbutton; double side push-	1			
For single side indicator and single side pushbutton; double side push-	RAL 9017	Pastic black	56-1000	0.018 kg
For single side indicator and single side pushbutton; double side push-	RAL 9017 RAL 3020	Pastic black Plastic red	56-1000 56-1200	0.018 kg
For single side indicator and single side pushbutton; double side push-	RAL 9017 RAL 3020 RAL 2003	Pastic black Plastic red Plastic orange	56-1000 56-1200 56-1300	0.018 kg 0.018 kg 0.018 kg
For single side indicator and single side pushbutton; double side push-	RAL 9017 RAL 3020 RAL 2003 RAL 1023	Pastic black Plastic red Plastic orange Plastic yellow	56-1000 56-1200 56-1300 56-1400	0.018 kg 0.018 kg 0.018 kg 0.018 kg
,	RAL 9017 RAL 3020 RAL 2003 RAL 1023 RAL 6024	Pastic black         Plastic red         Plastic orange         Plastic yellow         Plastic green	56-1000 56-1200 56-1300 56-1400 56-1500	0.018 kg 0.018 kg 0.018 kg 0.018 kg 0.018 kg
For single side indicator and single side pushbutton; double side push-	RAL 9017 RAL 3020 RAL 2003 RAL 1023 RAL 6024 RAL 5017	Pastic black         Plastic red         Plastic orange         Plastic yellow         Plastic green         Plastic blue	56-1000 56-1200 56-1300 56-1400 56-1500 56-1600	0.018 kg 0.018 kg 0.018 kg 0.018 kg 0.018 kg 0.018 kg

#### Front bezel internal

#### Additional Information

• For double side pushbutton

Dimension Front be	Colour	Front bezel	Part No.	Weight
Ø 87 mm	RAL 3020	Plastic red	56-5200	0.09 kg
	RAL 2003	Plastic orange	56-5300	0.09 kg
	RAL 1023	Plastic yellow	56-5400	0.09 kg
	RAL 6024	Plastic green	56-5500	0.09 kg
	RAL 5017	Plastic blue	56-5600	0.09 kg
	RAL 7043	Plastic darkgrey	56-5800	0.09 kg
	RAL 7040	Plastic lightgrey	56-5800A	0.09 kg
		Metal matt chrome	56-7600	0.115 kg

#### Front bezel for blind and visually impaired persons round

#### Additional Information

- For single side pushbutton, double side pushbutton external
- Special colours for front bezel on request

Marking	Colour	Front bezel	Part No.	Weight
Front bezel for	blind and visually impaired pers	ons round, front dimension	Ø 87 mm	
Braille + Open	RAL 3020	Plastic red	56-1291	0.018 kg
	RAL 2003	Plastic orange	56-1391	0.018 kg
Braille + Close	RAL 2003	Plastic orange	56-1392	0.018 kg
	DAL 1000		50 4404	
Braille + Open	RAL 1023	Plastic yellow	56-1491	0.018 kg

#### Front bezel for blind and visually impaired persons triangular

#### Additional Information

- For single side pushbutton
- SOS character height 15 mm, black printed according TSI/PRM and braille SOS as per DIN 32976
- Special colours for front bezel on request

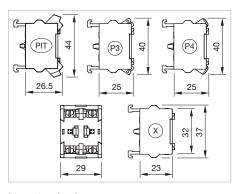
Marking	Colour	Front bezel	Part No.	Weight
SOS				
	or blind and visually impaired pers	ons triangular, front dimensio	n 106 x 101 mm	
Front bezel f	or blind and visually impaired pers	ons triangular, front dimension	n 106 x 101 mm 56-8000.A	0.029 kg
Front bezel f		-		0.029 kg
	RAL 1023	Plastic yellow	56-8000.A	

#### Rear side

#### **Switching element**

#### Additional Information

For the third switching element the terminal mar-king insert is to be ordered separately •



Dimensions [mm] PIT = Push-in terminal, P3 = Plug-in terminal 6.3 x 0.8 mm, P4 = Double plug-in terminal 6.3 x 0.8 mm, X = Screw terminal

Switching voltage	Switching current	Switching system	Contacts	Contact material	Terminal	Part No.	Wiring diagram	Weight
	Switching ele	ment						
250 VAC	6 A	Snap-action switching element	1 NO	Gold	Push-in Terminal	704.907.1	3	0.02 kg
		element	1 NC	Gold	Push-in Terminal	704.907.2	1	0.02 kg
			2 NO	Gold	Push-in Terminal	704.907.3	5	0.027 kg
			2 NC	Gold	Push-in Terminal	704.907.4	4	0.027 kg
			1 NC + 1 NO	Gold	Push-in Terminal	704.907.5	2	0.027 kg
			1 NO	Silver	Push-in Terminal	704.908.1	3	0.02 kg
			1 NC	Silver	Push-in Terminal	704.908.2	1	0.02 kg
			2 NO	Silver	Push-in Terminal	704.908.3	5	0.027 kg
			2 NC	Silver	Push-in Terminal	704.908.4	4	0.027 kg
			1 NC + 1 NO	Silver	Push-in Terminal	704.908.5	2	0.027 kg

switching voltage	Switching current	Switching system	Contacts	Contact material	Terminal	Part No.	Wiring diagram	Weight
	Switching	element						
50 VAC	6 A	Slow-make switching	1 NO	Gold	Push-in Terminal	704.917.1	3	0.019 kg
		element	1 NC	Gold	Push-in Terminal	704.917.2	1	0.019 kg
			2 NO	Gold	Push-in Terminal	704.917.3	5	0.026 kg
			2 NC	Gold	Push-in Terminal	704.917.4	4	0.019 kg
			1 NC + 1 NO	Gold	Push-in Terminal	704.917.5	2	0.026 kg
			1 NO	Silver	Push-in Terminal	704.918.1	3	0.019 kg
			1 NC	Silver	Push-in Terminal	704.918.2	1	0.019 kg
			2 NO	Silver	Push-in Terminal	704.918.3	5	0.026 kg
			2 NC	Silver	Push-in Terminal	704.918.4	4	0.019 kg
			1 NC + 1 NO	Silver	Push-in Terminal	704.918.5	2	0.026 kg
			1 NC 2 NO	Silver	Plug 6.3 x 0.8 mm Plug 6.3 x 0.8 mm	704.905.2 704.905.3	1	0.021 kg 0.028 kg
00 VAC	Switching	element Snap-action switching	1 NO	Silver	Plug 6.3 x 0.8 mm	704.905.1	3	0.021 kg
		element	1 NC	Silver	Plug 6.3 x 0.8 mm	704.905.2	1	0.021 kg
					-			-
			2 NC 1 NC + 1 NO	Silver	Plug 6.3 x 0.8 mm Plug 6.3 x 0.8 mm	704.905.4 704.905.5	4	0.028 kg 0.028 kg
					1	1		1
	Switching		4.110	01			-	0.0041
00 VAC	10 A	Slow-make switching element	1 NO	Silver	Plug 6.3 x 0.8 mm	704.915.1	3	0.021 kg
			1 NC	Silver	Plug 6.3 x 0.8 mm	704.915.2	1	0.021 kg
			2 NO	Silver	Plug 6.3 x 0.8 mm	704.915.3	5	0.028 kg
			2 NC 1 NC + 1 NO	Silver	Plug 6.3 x 0.8 mm Plug 6.3 x 0.8 mm	704.915.4 704.915.5	4	0.028 kg 0.028 kg
								0.020 Ng
	Switching		1.110			704.003.17	C	0.0001
00 VAC	10 A	Snap-action switching element	1 NO	Gold	Double plug 6.3 x 0.8 mm	704.901.1/D	3	0.026 kg
			1 NC	Gold	Double plug 6.3 x 0.8 mm	704.901.2/D	1	0.026 kg
			2 NO	Gold	Double plug 6.3 x 0.8 mm	704.901.3/D	5	0.033 kg
			2 NC	Gold	Double plug	704.901.4/D	4	0.033 kg
					6.3 x 0.8 mm			

Switching voltage	Switching current	Switching system	Contacts	Contact material	Terminal	Part No.	Wiring diagram	Weight	
500 VAC	10 A	Snap-action switching element	1 NC + 1 NO	Gold	Double plug 6.3 x 0.8 mm	704.901.5/D	2	0.033 kg	
			1 NO	Silver	Double plug 6.3 x 0.8 mm	704.905.1/D	3	0.026 kg	
				1 NC	Silver	Double plug 6.3 x 0.8 mm	704.905.2/D	1	0.026 kg
			2 NO	Silver	Double plug 6.3 x 0.8 mm	704.905.3/D	5	0.033 kg	
			2 NC	Silver	Double plug 6.3 x 0.8 mm	704.905.4/D	4	0.033 kg	
			1 NC + 1 NO	Silver	Double plug 6.3 x 0.8 mm	704.905.5/D	2	0.033 kg	



#### Switching element

	emitering	oronnonne						
500 VAC	10 A	Slow-make switching element	1 NO	Silver	Double plug 6.3 x 0.8 mm	704.915.1/D	3	0.025 kg
			1 NC	Silver	Double plug 6.3 x 0.8 mm	704.915.2/D	1	0.025 kg
			2 NO	Silver	Double plug 6.3 x 0.8 mm	704.915.3/D	5	0.032 kg
			2 NC	Silver	Double plug 6.3 x 0.8 mm	704.915.4/D	4	0.032 kg
			1 NC + 1 NO	Silver	Double plug 6.3 x 0.8 mm	704.915.5/D	2	0.032 kg



#### Switching element

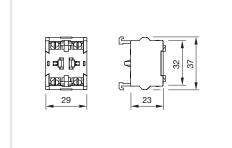
	5							
500 VAC	10 A		1 NO	Gold	Screw	704.901.1	3	0.021 kg
		element	1 NC	Gold	Screw	704.901.2	1	0.021 kg
			2 NO	Gold	Screw	704.901.3	5	0.028 kg
			2 NC	Gold	Screw	704.901.4	4	0.028 kg
			1 NC + 1 NO	Gold	Screw	704.901.5	2	0.028 kg
			1 NO	Silver	Screw	704.900.1	3	0.021 kg
			1 NC	Silver	Screw	704.900.2	1	0.021 kg
			2 NO	Silver	Screw	704.900.3	5	0.028 kg
			2 NC	Silver	Screw	704.900.4	4	0.028 kg
			1 NC + 1 NO	Silver	Screw	704.900.5	2	0.028 kg
			1 NO	Palladium	Screw	704.902.1	3	0.021 kg
			1 NC	Palladium	Screw	704.902.2	1	0.021 kg
			2 NO	Palladium	Screw	704.902.3	5	0.028 kg
			2 NC	Palladium	Screw	704.902.4	4	0.028 kg
			1 NC + 1 NO	Palladium	Screw	704.902.5	2	0.028 kg

Switching voltage	Switching current	Switching system	Contacts	Contact material	Terminal	Part No.	Wiring diagram	Weight
	Switching eler	nent						
500 VAC	10 A	Slow-make switching	1 NO	Gold	Screw	704.911.1	3	0.021 kg
		element	1 NC	Gold	Screw	704.911.2	1	0.021 kg
			2 NO	Gold	Screw	704.911.3	5	0.028 kg
			2 NC	Gold	Screw	704.911.4	4	0.028 kg
			1 NC + 1 NO	Gold	Screw	704.911.5	2	0.028 kg
			1 NO	Silver	Screw	704.910.1	3	0.021 kg
			1 NC	Silver	Screw	704.910.2	1	0.021 kg
			2 NO	Silver	Screw	704.910.3	5	0.028 kg
			2 NC	Silver	Screw	704.910.4	4	0.028 kg
			1 NC + 1 NO	Silver	Screw	704.910.5	2	0.028 kg
			1 NO	Palladium	Screw	704.912.1	3	0.021 kg
			1 NC	Palladium	Screw	704.912.2	1	0.021 kg
			2 NO	Palladium	Screw	704.912.3	5	0.028 kg
			2 NC	Palladium	Screw	704.912.4	4	0.028 kg
			1 NC + 1 NO	Palladium	Screw	704.912.5	2	0.028 kg

Contacts: NC = Normally closed, NO = Normally open

11	13 21	13	11 21	13 23
7			77	
12	 14 22	14	 12 22	 14 24
Wiring diagram 1	Wiring diagram 2	Wiring diagram 3	Wiring diagram 4	Wiring diagram 5

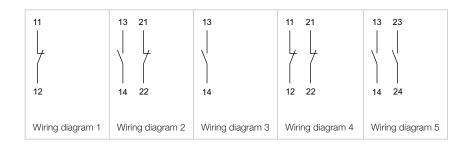
#### Switching element ring cable lug



Dimensions [mm]

Switching voltage	Switching current	Switching system	Contacts	Contact material	Terminal	Part No.	Wiring diagram	Weight
	Switchi	ng element for ring cable :	shoe					
500 VAC	10 A	Snap-action switching element	1 NO	Silver	Screw	704.900.1B	3	0.021 kg
			1 NC	Silver	Screw	704.900.2B	1	0.021 kg
			2 NO	Silver	Screw	704.900.3B	5	0.028 kg
			2 NC	Silver	Screw	704.900.4B	4	0.028 kg
			1 NC + 1 NO	Silver	Screw	704.900.5B	2	0.028 kg
			1		1	I		1
600 VAC		ng element for ring cable	1	Gold	Screw	704.911.1B	3	0.021 ka
000 VAC	Switchi	ng element for ring cable solve a solv	<b>shoe</b> 1 NO 1 NC	Gold	Screw	704.911.1B 704.911.2B	3	0.021 kg
00 VAC		-	1 NO				-	0.021 kg 0.021 kg 0.028 kg
00 VAC		-	1 NO 1 NC	Gold	Screw	704.911.2B	1	0.021 kg
00 VAC		-	1 NO 1 NC 2 NO	Gold	Screw Screw	704.911.2B 704.911.3B	1 5	0.021 kg 0.028 kg
00 VAC		-	1 NO 1 NC 2 NO 2 NC	Gold Gold Gold	Screw Screw Screw	704.911.2B 704.911.3B 704.911.4B	1 5 4	0.021 kg 0.028 kg 0.028 kg
00 VAC		-	1 NO 1 NC 2 NO 2 NC 1 NC + 1 NO	Gold Gold Gold Gold	Screw Screw Screw Screw	704.911.2B 704.911.3B 704.911.4B 704.911.5B	1 5 4 2	0.021 kg 0.028 kg 0.028 kg 0.028 kg
00 VAC		-	1 NO 1 NC 2 NO 2 NC 1 NC + 1 NO 1 NO	Gold Gold Gold Gold Silver	Screw Screw Screw Screw Screw	704.911.2B 704.911.3B 704.911.4B 704.911.5B 704.910.1B	1 5 4 2 3	0.021 kg 0.028 kg 0.028 kg 0.028 kg 0.021 kg
000 VAC		-	1 NO 1 NC 2 NO 2 NC 1 NC + 1 NO 1 NO 1 NC	Gold Gold Gold Gold Silver Silver	Screw Screw Screw Screw Screw Screw	704.911.2B 704.911.3B 704.911.4B 704.911.5B 704.910.1B 704.910.2B	1 5 4 2 3 1	0.021 kg 0.028 kg 0.028 kg 0.028 kg 0.021 kg 0.021 kg

Contacts: NC = Normally closed, NO = Normally open



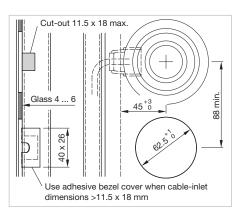


#### Mounting

#### Cable cover standard

#### Additional Information

• Additional cable covers are available on request



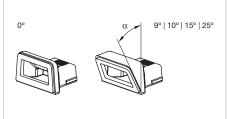
Mounting cut-outs [mm]

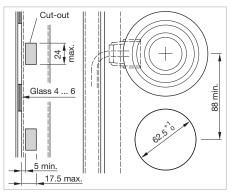
Product attribute	Cable cover	Part No.	Weight
Cable cover	standard		
included in standard delivery	standard 0°	56-992	0.003 kg
Cable cover	standard		

#### Cable cover funnel

#### Additional Information

- Specify Part No. in purchase order
- ▲ Caution: Funnel shaped cable cover Part No. 56-992B, C, D, E, F are not replacable after first mounting





Dimensions [mm]

Mounting cut-outs [mm]

Cable cover	Part No.	Weight
Cable cover	funnel	
funnel 0°	56-992B	0.01 kg
funnel 10°	56-992C	0.01 kg
funnel 15°	56-992D	0.01 kg
funnel 25°	56-992E	0.01 kg
Funnel 9°	56-992F	0.01 kg

#### **Bezel cover**

Product attribute	Dimension	Material	Colour	Mounting type	Part No.	Weight
Bezel cover						
0.8 mm thick	40 x 26 mm	Aluminium	natural anodized	adhesive	56-993	0.005 kg

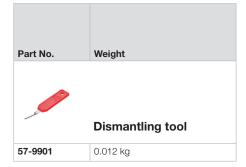
#### Mounting set for rear mounting

roduct attribute	ArtNr.	Gewich
Mounting set for rear mounting		
r front panel thickness 2 mm	56-991	0.034 kg
Mounting set for rear mounting		

#### **Dismantling tool**

#### Additional Information

#### • For front bezel



#### Anti-slip mat

#### Additional Information

- For dismounting of front bezel
- 3 mm dick

Dimension	Colour	Part No.	Weight
Anti-slip mat	t i		
100 x 100 mm	white	56-999	0.033 kg

#### Counterpart set for plug-in housing 2.8 x 0.8 mm

#### Additional Information

• (set of 10 pieces)

Part No.	Weight
With the second s	Counterpart set for plug-in housing 2.8 x 0.8 mm
56-994	0.012 kg

#### Counterpart set for plug-in housing 6.3 x 0.8 mm

#### Additional Information

• (set of 10 pieces)

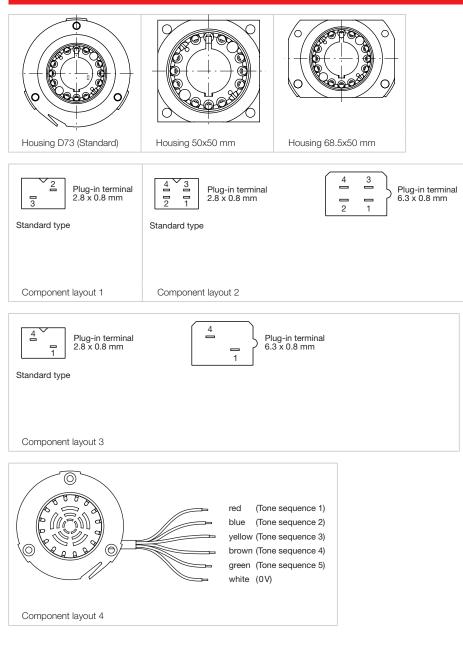
Part No.	Weight
	Counterpart set for plug-in housing 6.3 x 0.8 mm
56-995	0.012 kg

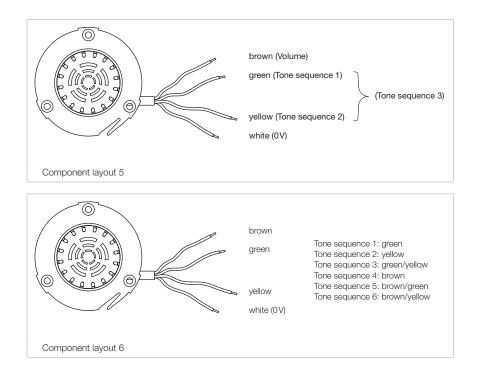
#### Sealing

Part No.	Weight
0	Sealing black, glass mounting
56-990	0.004 kg

### 56 Drawings

#### Drawings





# Indicator

#### **Material**

**Connection cable** Halogene free Polyolefine mixture

Lens Polycarbonate (PC), as per UL94 V0

**Front bezel** Zinc matt chromium plated or Polybutylenterephthalat (PBT), as per UL94 V0

Actuator Polycarbonate (PC), as per UL94 V0

#### **Mechanical characteristics**

#### Terminals

Cable 2-poles with plug-in connection 2.8 x 0.8 mm Flat plug-in housing rectangular, AMP No. 626 057-0

Counterpart to AMP Flat plug-in housing (not part of delivery) Receptacle housing AMP No. 626 056-0 Receptacle socket AMP No. 160 655-2

Wire cross-section 0.24 mm<sup>2</sup>

**Wire length** 200 mm with AMP connector 2.8 x 0.8 mm

**Fixing screws** For front mounting M4 x 8 mm

**Tightening torque** For screws for front mounting 80 Ncm ... 100 Ncm Key (mounting and dismantling) Hexagon socket wrench size 2.5 mm

# **Electrical characteristics**

Illumination 15 LED green, red, yellow, white or blue Supply voltage 24, 110 VDC Tolerance -30 % ... +25 % 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 61058-1, EN 50081-1, EN 50082-1, EN 50082-2, EN 50121-3-2, EN 50155

#### **Environmental conditions**

#### **Storage temperature** -45 °C ... +90 °C

# Operating temperature

-40°C...+80°C

### **Protection degree**

Front side IP 67 Rear side IP 65

# Climate resistance

Damp heat, cyclic 96 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 100 cycles, -40 °C...+80 °C, as per EN IEC 60068-2-14

# Shock resistance

(semi-sinusoidal) max. 250 m/s<sup>2</sup>, pulse width 11 ms, as per EN IEC 60068-2-27

Vibration resistance (sinusoidal) max. 100 m/s<sup>2</sup> at 10 Hz... 2000 Hz, as per EN IEC 60068-2-6

# **Approvals**

# Approbations

CQC NFF

Declaration of conformity CE

# Multi-Tone Sound Module

#### Material

#### **Connection cable**

Halogene free Polyolefine mixture Housing switching unit and speaker cap Polycarbonate (PC), as per UL94 V0

### Front bezel

Zinc matt chromium plated or Polybutylenterephthalat (PBT), as per UL94 V0

Housing Tritan (Copolyeste)

#### **Mechanical characteristics**

#### Terminals

200 mm with crimped metal sleeves 3-tone sequences module:  $4 \times 0.5 \text{ mm}^2$  or  $4 \times 0.25 \text{ mm}^2$ 5-tone sequences module:  $6 \times 0.5 \text{ mm}^2$ 6-tone sequences module:  $6 \times 0.5 \text{ mm}^2$ 

**Fixing screws** For front mounting M4 x 8 mm (3x)

**Tightening torque** For screws for front mounting 80 Ncm ... 100 Ncm Key (mounting and dismantling) Hexagon socket wrench size 2.5 mm

# **Electrical characteristics**

Units compliant to EN 61000-6-2, EN 61000-6-3, EN 50121-3-2

# **Operating voltage/-current**

Operation voltage 24 VDC  $\pm$ 30 %, 5-tone sequences module Operation voltage range 16...63 / 50...143 VDC, 3-tone sequences module Current rating < 50 mA depending on voltage and volume

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

# Acoustic characteristics

#### 5-tone sequences:

The volume of each tone sequence is configured in five steps by 6 dB, adjustable from the rear side. All sounds are controlled using a wire cable.

The tones can be played in any sequence at different volumes, durations and intervals.

#### 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. All sounds are controlled using a wire cable. In order to symplify the definition of the Multi-Tone Sound Module, a "volume control box" is at EAO customer's disposal as an accessory.

The tones can be played in any sequence at different volumes, durations and intervals.

#### 6-tone sequences:

The «MTSM self-adjusting» offers six individual tone sequences that can be emitted at different frequencies, number of repeats and durations. The volume can be pre-set so it is always a specified number of decibels above the ambient noise. The six tone sequences are controlled in a binary manner, via three wires.

#### Frequency range

500 Hz ... 3000 Hz ±1 % 480 Hz ... 3000 Hz ±1 % (6-tone sequences module)

# Time range of tone sequence

0...∞ (endless)

#### Acoustic pressure level

3-/5-tone sequences module: 90 dB (A) 10 cm @ 1 kHz Level 17 for 3-tone sequences module Level 5 for 5-tone sequences module 6-tone sequences module: Max. 100 db @ 10 cm @ 1 kHz

# **Environmental conditions**

Storage temperature

-45 °C ... +90 °C

#### **Operating temperature**

-40°C...+85°C

#### Protection degree

3-/6-tone sequences module: Front side IP 69K oder IP 40 Rear side IP 65

5-tone sequences module: Front side IP 69K Rear side IP 65

#### **Climate resistance**

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

Saline mist 96 hours, as per EN IEC 60068-2-11

**Shock resistance** (semi-sinusoidal) max. 50 m/s², pulse width 30 ms, as per EN 61373

**Vibration resistance** Max. 7.9 m/s<sup>2</sup> at 10 Hz... 150 Hz, as per EN 61373

# Approvals

# Approbations

CQC E1 NFF

Declaration of conformity CE TSI/PRM

# Pushbutton

Switching system

Self-cleaning, double-breaking snap-action switching system 1 Normally Open contact, momentary function

# Material

**Connection cable** Halogene free Polyolefine mixture

Lens Aluminium anodized or Polybutylenterephthalat (PBT), as per UL94 V0

**Front bezel** Zinc matt chromium plated or Polybutylenterephthalat (PBT), as per UL94 V0

Actuator Polycarbonate (PC), as per UL94 V0

Material of contact Gold plated silver

# **Mechanical characteristics**

#### Terminals

Cable 4-poles with plug-in connection 2.8 x 0.8 mm Flat plug-in housing rectangular, AMP No. 626 057-0

Counterpart to AMP Flat plug-in housing (not part of delivery) Receptacle housing AMP No. 626 056-0 Receptacle socket AMP No. 160 655-2

Other version : Cable 4 poles with plug-in connection 6.3 x 0.8 mm Flat plug-in housing rectangular, AMP No. 180 901-0

Counterpart to AMP Flat plug-in housing (not part of delivery) Receptacle housing AMP No. 180 900-0 Receptacle socket AMP No. 160 860-2 Wire cross-section 0.5 mm<sup>2</sup>

Wire length 200 mm with AMP connector 2.8 x 0.8 mm

# **Fixing screws**

Single side pushbutton for front mounting M4 x 8mm Double side pushbutton for glass mounting M4 x 25 mm Single side pushbutton for glass mounting M4 x 20 mm (for glass  $\geq$  5 mm) Single side pushbutton for glass mounting M4 x 16 (for 4 mm glass)

**Tightening torque** 

Screws for single side pushbutton for front mounting 80 Ncm ... 100 Ncm Screws for single side- and double side pushbutton for glass mounting 50 Ncm **Key (mounting and dismantling)** Hexagon socket wrench size 2.5 mm

#### Actuating force

6N...12N

Actuating travel ~0.5 mm

# Mechanical lifetime

2 million cycles operation

# **Electrical characteristics**

#### Illumination

Ready status, 8 LED green, red or yellow Optical switch on status, 2 LED green or red (3 LED for special versions) Supply voltage 24 VDC Tolerance +25 % ... -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 61058-1, EN 61000-6-2, EN 61000-6-3, EN 50155



Switch rating min. 5 VDC, 5 mA max. 137 VDC/VAC, max. 200 mA

**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**  $-40 \,^{\circ}\text{C} \dots + 80 \,^{\circ}\text{C}$ 

**Protection degree** Front side IP 67 Back side IP 65

**Climate resistance** 

Damp heat, cyclic 96 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 100 cycles, -40 °C...+80 °C, as per EN IEC 60068-2-14

#### Flashing warning beacon

#### Material

**Connection cable** Halogene free Polyolefine mixture

Lens Polycarbonate (PC), as per UL94 V0

**Front bezel** Zinc matt chromium plated or Polybutylenterephthalat (PBT), as per UL94 V0

Actuator Polycarbonate (PC), as per UL94 V0

#### **Mechanical characteristics**

#### Terminals

Cable 2-poles with plug-in connection 2.8 x 0.8 mm Flat plug-in housing rectangular, AMP No. 626 057-0

Counterpart to AMP Flat plug-in housing (not part of delivery) Receptacle housing AMP No. 626 056-0 Receptacle socket AMP No. 160 655-2

# Shock resistance

(semi-sinusoidal) max. 250 m/s<sup>2</sup>, pulse width 11 ms, as per EN IEC 60068-2-27

**Vibration resistance** (sinusoidal) max. 100 m/s<sup>2</sup> at 10 Hz... 500 Hz, as per EN IEC 60068-2-6

#### **Approvals**

#### Approbations

CQC NFF

# Declaration of conformity

TSI/PRM

Wire cross-section 0.24 mm<sup>2</sup>

Wire length 200 mm with AMP connector 2.8 x 0.8 mm

**Fixing screws** For front mounting M4 x 8 mm

#### **Tightening torque**

For screws for front mounting 80 Ncm ... 100 Ncm Key (mounting and dismantling) Hexagon socket wrench size 2.5 mm

# **Electrical characteristics**

# Illumination

3 LED white Supply voltage 24 VDC ±30 % Current consumption < 500 mA Blitzfrequenz 1 Hz Impulsdauer 50 ms Pausendauer 950 ms Einschaltdauer 5 % Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination

Units compliant to EN 61000-6-2, EN 61000-6-3, EN 50121-3-2

#### **Environmental conditions**

**Storage temperature** -45 °C ... +90 °C

**Operating temperature** -40 °C ... +80 °C

**Protection degree** Front side IP 67 Rear side IP 65

EAO reserves the right to alter specifications without further notice.

# **Climate resistance**

Damp heat, cyclic 96 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 100 cycles, -40 °C...+80 °C, as per EN IEC 60068-2-14

# Shock resistance

(semi-sinusoidal) max. 250 m/s<sup>2</sup>, pulse width 11 ms, as per EN IEC 60068-2-27

# Vibration resistance

(sinusoidal) max. 100 m/s<sup>2</sup> at 10 Hz ... 2000 Hz, as per EN IEC 60068-2-6

# Approvals

Approbations CQC NFF

Declaration of conformity CE

# Slow-make switching element

#### Switching system

The double-break, slow-make switching element is equipped with one or two independent contact systems, acting as normally open or normally closed contact. The normally closed contact has forced opening.

Slow-make contacts with forced action are ideal for high switch ratings.

Up to three switching elements can be snapped to each actuator. For the emergency-stop pushbutton use the slow-make switching element (max. 3).

#### **Material**

#### Material of contact

Hardsilver, gold-silver, silver-palladium (for aggressive atmospheres)

# Switch housing

Polycarbonate (PC)

#### **Mechanical characteristics**

#### Terminals

Screw terminals Plug-in terminals 6.3 x 0.8 mm max. wire cross-section 2 x 2.5 mm<sup>2</sup> max. wire cross-section of stranded cable 2 x 1.5 mm<sup>2</sup> For switches with plug-in terminals it is necessary to provide insulation sleeves and to maintain a spacing of 65 mm between rows (mounting cut-outs)

#### **Tightening torque**

Screws at the mounting flange max. 25-30 Ncm Screws at switching element max. 50 Ncm

#### Actuating force

1 Normally closed 2 N 1 Normally open 3.1 N

#### Actuating travel

5.8mm ± 0.2mm

#### **Rebound time**

< 1 ms

#### Mechanical lifetime

(with 1 switching element) Pushbutton maintained action Pushbutton momentary action Selector switch maintained action 1.25 million Cycles of operation Selector switch momentary action 2.5 million Cycles of operation Emergency-stop switch Keylock switch maintained action Keylock switch momentary action

1.5 million Cycles of operation 3 million Cycles of operation 50000 Cycles of operation 25000 Cycles of operation 50000 Cycles of operation

#### **Electrical characteristics**

#### Standards

The switches comply with the "Standards for low-voltage switching devices" EN IEC 60947-5-1

#### Rated Insulation Voltage U<sub>i</sub>

500 VAC/600 VDC, as per EN IEC 60947-5-1

# **Contact resistance**

New state  $\leq 50 \text{ m}\Omega$  as per DIN IEC 60512-2-4

#### **Isolation resistance**

 $\geq 10 M\Omega$  between open contacts at 500 VDC, as per DIN IEC 60512-3-1

#### **Electrical life**

6050 cycles of operations

#### Conventional free air thermal current I<sub>th</sub>

As per EN IEC 60947-5-1 6A for plug-in terminals 10A for screw terminals the maximum current in continuous operation and at ambient temperature must not exceed the guoted maximum values.

#### Switch rating

At switch rating AC for gold-silver, silver-palladium and hardsilver contacts, service category AC-15, as per EN IEC 60947-5-1 (cos\phi 0.3)

400 VAC 500 VAC Voltage 230 VAC Current 7A 5A 4 A

At switch rating DC for gold-silver and hardsilver contacts, service category DC-13, as per EN IEC 60947-5-1

24VDC 60VDC 110VDC 250 VDC Voltage Current 10A 5A 2.5A 0.6A

#### **Recommended minimum operational data**

Gold-silver contacts: Voltage 24VDC 110VDC Current 5mA 2mA

Hardsilver contacts: Voltage 24VDC 110VDC Current 50 mA 10mA

#### **Protection class**

Indicators and switches, fit for mounting into devices with protection class II

#### **Environmental conditions**

Storage temperature -40°C...+85°C

**Operating temperature** -40°C...+55°C (other temperatures on request)

**Protection degree** IP 00

Shock resistance (single impacts, semi-sinusoidal) 300 m/s<sup>2</sup> puls width 11 ms, as per EN IEC 60068-2-27

#### Vibration resistance

(sinusoidal) 100 m/s<sup>2</sup> at 10 Hz ... 500 Hz, amplitude 0.75 mm, as per EN IEC 60068-2-6

#### **Snap-action switching element**

#### Switching system

The double-break, snap-action switching element is equipped with one or two independent contact systems, acting as normally open or normally closed contact. The snap-action switching element is fitted with self-cleaning contacts.

Up to three switching elements can be snapped to each actuator. Snap-action switching elements are not permissible for emergencystop pushbuttons!

#### Material

Material of contact

Hardsilver, gold-silver, silver-palladium (for aggressive atmospheres)

Switch housing Polycarbonate (PC)

#### **Mechanical characteristics**

#### **Terminals**

Screw terminals Plug-in terminals 6.3 x 0.8 mm max. wire cross-section 2 x 2.5 mm<sup>2</sup> max. wire cross-section of stranded cable 2 x 1.5 mm<sup>2</sup> For switches with plug-in terminals it is necessary to provide insulation sleeves and to maintain a spacing of 65 mm between rows (mounting cut-outs)

#### **Tightening torque**

Screws at the mounting flange max. 25–30 Ncm Screws at switching element max. 50 Ncm

#### Actuating force

1 Normally closed 1.9 N 1 Normally open 2 N

#### **Approvals**

#### **Approbations**

CB (IEC 60947) CCC CSA Germanischer Lloyd GOST NFF 16-102 UL

**Declaration of conformity** CF

# Actuating travel

5.8mm ± 0.2mm

#### **Rebound time**

≤3ms

#### Mechanical lifetime

(with 1 switching element) Pushbutton maintained action Pushbutton momentary action Selector switch maintained action 1.25 million Cycles of operation Selector switch momentary action 2.5 million Cycles of operation Keylock switch maintained action Keylock switch momentary action

1.5 million Cycles of operation 3 million Cycles of operation 25000 Cycles of operation 50000 Cycles of operation

#### **Electrical characteristics**

#### **Standards**

The switches comply with the "Standards for low-voltage switching devices" EN IEC 60947-5-1

#### Rated Insulation Voltage U<sub>i</sub>

500 VAC/600 VDC, as per EN IEC 60947-5-1

#### **Contact resistance**

New state  $\leq 50 \text{ m}\Omega$  as per DIN IEC 60512-2-4

#### **Isolation resistance**

 $\geq 10 M\Omega$  between open contacts at 500 VDC, as per DIN IEC 60512-3-1

#### **Electrical life**

50000 cycles of operations

#### Conventional free air thermal current $\mathbf{I}_{\mathrm{th}}$

As per EN IEC 60947-5-1 6A for plug-in terminals 10A for screw terminals the maximum current in continuous operation and at ambient temperature must not exceed the quoted maximum values.

#### Switch rating

At switch rating AC for gold-silver, silver-palladium and hardsilver contacts, service category AC-15, as per EN IEC 60947-5-1 (cos  $\phi$  0.3)

Voltage 230 VAC 400 VAC 500 VAC Current 6A 4A 2.5A

At switch rating DC for gold-silver and hardsilver contacts, service category DC-13, as per EN IEC 60947-5-1

Voltage 24VDC 60VDC 110VDC Current 10A 3A 1A

#### **Recommended minimum operational data**

Gold-silver contacts: Voltage 5VDC 24VDC 110VDC Current 15mA 5mA 2mA

Hardsilver contacts: Voltage 24VDC 110VDC Current 50mA 10mA

#### **Protection class**

Indicators and switches, fit for mounting into devices with protection class II

### **Environmental conditions**

#### Storage temperature

-40°C...+85°C

# Operating temperature

-40 °C ... +55 °C (other temperatures on request)

# Protection degree

- -

**Shock resistance** (single impacts, semi-sinusoidal) 300 m/s<sup>2</sup> puls width 11 ms, as per EN IEC 60068-2-27

#### **Vibration resistance**

(sinusoidal) 100 m/s² at 10 Hz  $\ldots$  500 Hz, amplitude 0.75 mm, as per EN IEC 60068-2-6

# **Approvals**

#### Approbations

CB (IEC 60947) CCC CSA Germanischer Lloyd GOST NFF 16-102 UI

#### **Declaration of conformity**

CE

#### Slow-make switching element PIT

#### Switching system

The double-break, slow-make switching element is equipped with one or two independent contact systems, acting as normally open or normally closed contact. The normally closed contact has forced opening.

Slow-make contacts with forced action are ideal for high switch ratings.

Up to three switching elements can be snapped to each actuator. For the emergency-stop pushbutton use the slow-make switching element (max. 3).

#### **Material**

Material of contact Hardsilver and gold-silver

Switch housing Polycarbonate (PC)

#### **Mechanical characteristics**

#### Terminals

PIT push-in terminal Skinning 8 mm Wire cross-section: Wire 0.2 to 1.0 mm<sup>2</sup> Stranded wire 0.2 to 1.0 mm<sup>2</sup> without core and sleeve Stranded wire 0.2 to 0.75 mm<sup>2</sup> with core and sleeve

#### **Tightening torque**

Screws at the mounting flange max. 25 Ncm

#### Actuating force

1 Normally closed 2 N 1 Normally open 3.1 N

#### **Actuating travel**

 $5.8\,\text{mm}\pm0.2\,\text{mm}$ 

#### **Rebound time**

≤1ms

# Mechanical lifetime

(with 1 switching element) Pushbutton maintained action Pushbutton momentary action Selector switch maintained action 1.25 million Cycles of operation Selector switch momentary action 2.5 million Cycles of operation Emergency-stop switch Keylock switch maintained action Keylock switch momentary action

1.5 million Cycles of operation 3 million Cycles of operation 50000 Cycles of operation 25000 Cycles of operation 50000 Cycles of operation

# **Electrical characteristics**

#### Standards

The switches comply with EN IEC 60947-1/EN IEC 60947-5-1

#### Rated Insulation Voltage U 500 VAC/600 VDC, as per EN IEC 60947-5-1

**Contact resistance** New state  $\leq 50 \text{ m}\Omega$  as per DIN IEC 60512-2-4

#### **Isolation resistance** $\geq 10 M\Omega$ between open contacts at 500 VDC, as per DIN IEC 60512-3-1

Electrical life 6050 cycles of operations

# Conventional free air thermal current I<sub>th</sub>

6A, as per EN IEC 60947-5-1 the maximum current in continuous operation and at ambient temperature must not exceed the quoted maximum values.

# Switch rating

At switch rating AC for gold-silver and hardsilver contacts, service category AC-15, as per EN IEC 60947-5-1 ( $\cos \phi$  0.3)

250 VAC Voltage Current 6A

At switch rating DC for gold-silver and hardsilver contacts, service category DC-13, as per EN IEC 60947-5-1

Voltage 24VDC 110VDC Current 6A 1.0A

# **Snap-action switching element PIT**

# Switching system

The double-break, snap-action switching element is equipped with one or two independent contact systems, acting as normally open or normally closed contact. The snap-action switching element is fitted with self-cleaning contacts.

Up to three switching elements can be snapped to each actuator. Snap-action switching elements are not permissible for emergencystop pushbuttons!

#### Recommended minimum operational data

Gold-silver contacts: Voltage 24 VDC Current 5mA

Hardsilver contacts: Voltage 24 VDC Current 50 mA

### Protection class

Indicators and switches, fit for mounting into devices with protection class II

# **Environmental conditions**

Storage temperature

-40°C...+85°C

# **Operating temperature**

-40°C...+55°C (other temperatures on request)

**Protection degree** IP 20

Shock resistance (single impacts, semi-sinusoidal) 300 m/s<sup>2</sup> puls width 11 ms, as per EN IEC 60068-2-27

# **Approvals**

# Approbations

CB (IEC 60947) CSA Germanischer Lloyd GOST NFF 16-102 UL

Declaration of conformity

CF

# Material

Material of contact Hardsilver and gold-silver

Switch housing Polycarbonate (PC)

eao 46

# Mechanical characteristics

#### Terminals

PIT push-in terminal Skinning 8mm Wire cross-section: Wire 0.2 to 1.0 mm<sup>2</sup> Stranded wire 0.2 to 1.0 mm<sup>2</sup> without core and sleeve Stranded wire 0.2 to 0.75 mm<sup>2</sup> with core and sleeve

#### **Tightening torque**

Screws at the mounting flange max. 25 Ncm

#### Actuating force

1 Normally closed 1.9 N 1 Normally open 2N

Actuating travel  $5.8 \text{ mm} \pm 0.2 \text{ mm}$ 

**Rebound time**  $< 3 \,\mathrm{ms}$ 

#### **Mechanical lifetime**

(with 1 switching element) Pushbutton maintained action Pushbutton momentary action Selector switch maintained action 1.25 million Cycles of operation Selector switch momentary action 2.5 million Cycles of operation Emergency-stop switch Keylock switch maintained action Keylock switch momentary action

1.5 million Cycles of operation 3 million Cycles of operation 50000 Cycles of operation 25000 Cycles of operation 50000 Cycles of operation

#### **Electrical characteristics**

**Standards** The switches comply with EN IEC 60947-1/EN IEC 60947-5-1

Rated Insulation Voltage U<sub>i</sub> 500 VAC/600 VDC, as per EN IEC 60947-5-1

**Contact resistance** New state  $\leq 50 \text{ m}\Omega$  as per DIN IEC 60512-2-4

#### **Isolation resistance** $\geq 10 M\Omega$ between open contacts at 500 VDC, as per DIN IEC 60512-3-1

**Electrical life** 50000 cycles of operations

# Conventional free air thermal current I<sub>th</sub>

6A, as per EN IEC 60947-5-1 the maximum current in continuous operation and at ambient temperature must not exceed the guoted maximum values.

#### Switch rating

At switch rating AC for gold-silver and hardsilver contacts, service category AC-15, as per EN IEC 60947-5-1 (cosφ 0.3)

Voltage 250 VAC Current 6A

At switch rating DC for gold-silver and hardsilver contacts, service category DC-13, as per EN IEC 60947-5-1

24VDC 110VDC Voltage Current 6A 1 O A

#### Recommended minimum operational data

Gold-silver contacts: Voltage 24 VDC Current 5mA

Hardsilver contacts: Voltage 24 VDC Current 50 mA

#### **Protection class**

Indicators and switches, fit for mounting into devices with protection class II

#### **Environmental conditions**

Storage temperature -40°C...+85°C

#### **Operating temperature**

-40°C...+55°C (other temperatures on request)

#### **Protection degree**

IP 20

#### Shock resistance

(single impacts, semi-sinusoidal) 300 m/s<sup>2</sup> puls width 11 ms, as per EN IEC 60068-2-27

#### **Vibration resistance**

(sinusoidal) 100 m/s<sup>2</sup> at 10 Hz ... 500 Hz, as per EN IEC 60068-2-6 and EN 61373 Increased broad band noise, class 1B

#### **Approvals**

#### **Approbations**

CB (IEC 60947) CSA Germanischer Lloyd GOST NFF 16-102 UI

#### **Declaration of conformity**

CE

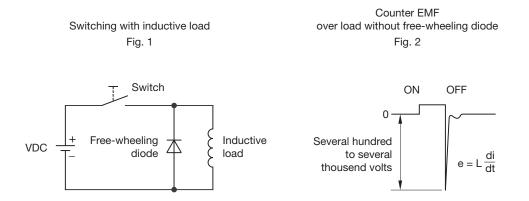
# Suppressor circuits

When switching inductive loads such as relays, DC motors, and DC solenoids, it is always important to absorb surges (e.g. with a diode) to protect the contacts. When these inductive loads are switched off, a counter emf can severely damage switch contacts and greatly shorten lifetime.

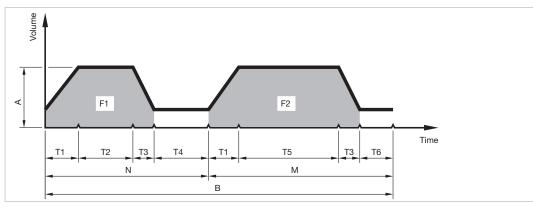
Fig. 1 shows an inductive load with a free-wheeling diode connected in parallel. This free-wheeling diode provides a path for the inductor current to flow when the current is interrupted by the switch. Without this free-wheeling diode, the voltage across the coil will be limited only by dielectric breakdown voltages of the circuit or parasitic elements of the coil. This voltage can be kilovolts in amplitude even when nominal circuit voltages are low (e.g. 12 VDC) see Fig. 2.

The free-wheeling diode should be chosen so that the reverse breakdown voltage is greater than the voltage driving the inductive load. The DC blocking voltage (VR) of the free-wheeling diode can be found in the datasheet of a diode. The forward current should be equal or greater than the maximum current flowing through the load.

To get an efficient protection, the free-wheeling diode must be connected as close as possible to the inductive load!



# Multi-Tone Sound Module, standard tone sequence



Diagram

F1	Frequency 1 of a tone sequence
T2	Playing time tone 1
T4	Break
Ν	Number of repetitions of tone 1
F2	Frequency 2 of a tone sequence
T5	Playing time tone 2
Т6	Break
М	Number of repetitions of tone 2
А	Volume level (±8 dB) @ 10 cm
В	Number of repetitions of the complete tone sequence, or blockage of the tone sequence
T1	Fade-in tone 1 and 2
Т3	Fade-out tone 1 and 2

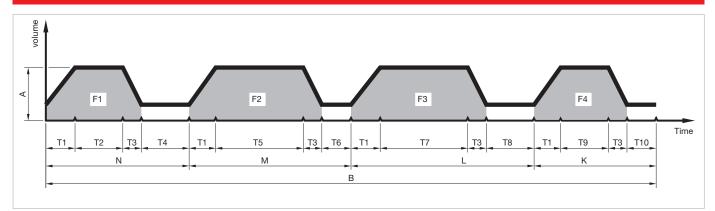
Tone sequence	es 1-5 Transportation (T	)				
	Parameter	Sequence 1 Door orientation signal	Sequence 2 Door opening signal	Sequence 3 Warning signal for door closing	Sequence 4 Door out of order signal	Sequence 5 Hussle Alarm
Tone 1	F1	500 Hz	800 Hz	2000 Hz	1400 Hz	875 Hz
	T2	500 ms	300 ms	500 ms	50 ms	1000 ms
	T4	900 ms	700 ms	200 ms	100 ms	250 ms
	Ν	∞	1	~	3	3
Tone 2	F2	deactivated	830 Hz	deactivated	deactivated	deactivated
	T5	deactivated	500 ms	deactivated	deactivated	deactivated
	Т6	deactivated	0 ms	deactivated	deactivated	deactivated
	М	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)
	В	∞	∞	1	1	1
	T1	0 ms	0 ms	0 ms	0 ms	0 ms
	Т3	0 ms	0 ms	0 ms	0 ms	0 ms

# 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
	Τ4	250 ms	50 ms	20 ms
	Ν	∞	~	2
Tone 2	F2	deactivated	deactivated	500 Hz
	T5	deactivated	deactivated	1000 ms
	Т6	deactivated	deactivated	900 ms
	М	deactivated	deactivated	1
General	A	17 / 90 db (A)	17 / 90 dB (A)	9 / 78 dB (A)
	В	∞	∞	∞
	T1	0 ms	0 ms	0 ms
	Т3	0 ms	0 ms	0 ms

Tone sequenc	es 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
	Ν	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
	Т6	100 ms	400 ms	200 ms	100 ms	100 ms
	М	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)
	В	~	~	∞	~	~
	T1	0 ms				
	Т3	200 ms	0 ms	500 ms	0 ms	0 ms

# Multi-Ton Sound Modul, self adjusting, standard Tone sequence



Diagram

F1	Frequency 1 of a tone sequence	L
T2	Playing time tone 1	F4
T4	Break	Т9
Ν	Number of repetitions of tone 1	T1
F2	Frequency 2 of a tone sequence	К
T5	Playing time tone 2	A
Т6	Break	D
М	Number of repetitions of tone 2	В
F3	Frequency 3 of a tone sequence	
T7	Playing time tone 3	T1
Т8	Break	Т3
	1	

L	Number of repetitions of tone 3
F4	Frequency 4 of a tone sequence
Т9	Playing time tone 4
T10	Break
K	Number of repetitions of tone 4
А	Basic volume level
D	Acoustic pressure difference
В	Number of repetitions of the complete tone sequence, or blockage of the tone sequence
T1	Fade-in tone 1 to 4
Т3	Fade-out tone 1 to 4

Tone sequence	es 6 1-6						
	Parameter	Sequence 1 Door enabled	Sequence 2 Door closing	Sequence 3 Customer specific	Sequence 4 Customer specific	Sequence 5 Customer specific	Sequence 6 Customer specific
Tone 1	F1	1500 Hz	1900 Hz	-	-	-	-
	T2	250 ms	100 ms	-	-	-	-
	T4	250 ms	50 ms	-	-	-	-
	Ν	∞	1	-	-	-	-
Tone 2	F2	deactivated	deactivated	-	-	-	-
	T5	deactivated	deactivated	-	-	-	-
	Т6	deactivated	deactivated	-	-	-	-
	М	deactivated	deactivated	-	-	-	-
Tone 3	F3	deactivated	deactivated	-	-	-	-
	Τ7	deactivated	deactivated	-	-	-	-
	Т8	deactivated	deactivated	-	-	-	-
	L	deactivated	deactivated	-	-	-	-
Tone 4	F4	deactivated	deactivated	-	-	-	-
	Т9	deactivated	deactivated	-	-	-	-
	T10	deactivated	deactivated	-	-	-	-
	К	deactivated	deactivated	-	-	-	-
General	A	48 dB (A) @ 1.5 m	48 dB (A) @ 1.5m	-	-	-	-
	D	+2 db	+2 db	-	-	-	-
	В	∞	~	-	-	-	-
	T1	0 ms	0 ms	-	-	-	-
	Т3	0 ms	0 ms	-	-	-	-

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