

EAO – Your Expert Partner for  
Human Machine Interfaces



**EAO Product Information**

Series 56

**e a o** ■





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### Product Information

#### General notes

The series 56 is designed as a **door pushbutton** for public transport applications. We have implemented an excellent tactile feedback - our common mechanical switch!

The pushbutton consists of a switching unit with LED illumination, lens and connection cable. If you use the front panel mounting, the screws are covered by the raised front bezel. If a flush mounted version is needed, you don't need the front bezel and can be mounted easily from the back side.

The door open pushbutton can be mounted either as a **double** or as a **single** pushbutton function. For covering the fixing screws, the round front bezel is needed.

Additional to the push-buttons, the range is completed by **flush** or **raised conical indicator**. The raised conical indicators offer high-visibility illumination even from a distance or from side view with a wide angle of 180° circumferential visibility.

Luminosity and wave length scattering caused by the technology used in the LED manufacturing processes may lead to visual differences in our products.

Anodized aluminium parts can have visible variations due production-technical reasons.

#### Multi-Tone Sound Module

The Sound Module MTSM can be programmed (customized tone sequences are provided when desired by EAO or directly by the customer by means of a tone editor program), to emit a clear warning sound adapted to a particular operating environment.

Up to five different tone sequences can be played in any sequence at different volumes, durations and intervals to create a unique sequence. A set of standard sounds is pre-programmed for equipment in Transport and Machinery applications.

The Sound Module shares the same design and dimensions of other Series 56 product.

Fast front mounting into panel with 3 fixing screws (supplied).

#### Specimen order

##### Single side pushbutton :

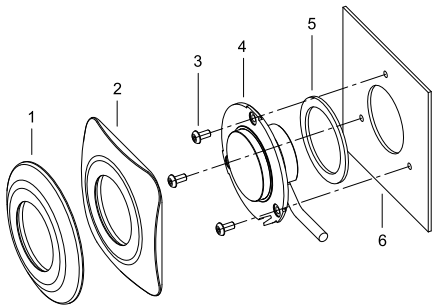
- Single side pushbutton front mounting, lens alu blue raised, LED 8 green 2 red, 24 VDC, cable 200 mm with plug-in housing 2.8 x 0.8 mm 56-130.22.200.21.04

##### Essential accessories :

- Front bezel metal mat-chrom plated, 87 mm dia. 56-3600

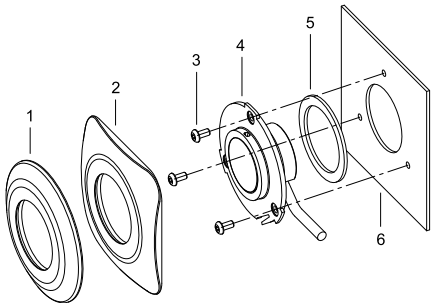
*We reserve the right to modify technical data  
All dimensions in mm*

## Single side indicator and Multi-Tone Sound Module, front mounting



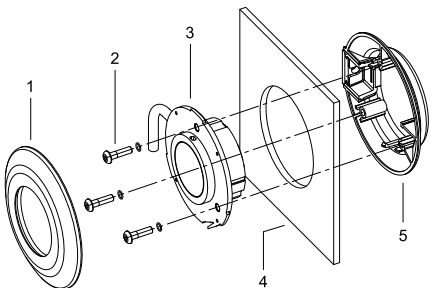
- 1 Front bezel round
- 2 Front bezel square
- 3 Rounded head screw hexagon socket M4 x 8 mm  
(longer screws available on request)
- 4 Indicator- and MTSM unit complete
- 5 Sealing
- 6 Front panel

## Single side pushbutton, front mounting



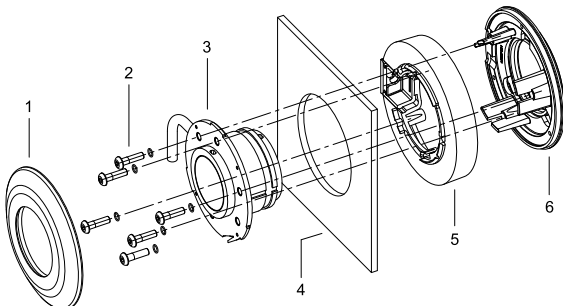
- 1 Front bezel round
- 2 Front bezel square
- 3 Rounded head screw hexagon socket M4 x 8 mm  
(longer screws available on request)
- 4 Switching unit complete
- 5 Sealing
- 6 Front panel

## Single side pushbutton, glass mounting



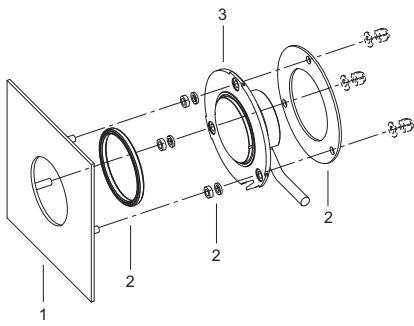
- 1 Front bezel round
- 2 Rounded hexagon screw socket M4 x 16 (M4 x 20) with O-ring seal
- 3 Switching unit complete
- 4 Glass
- 5 Front bezel internal

## Double side pushbutton, glass mounting



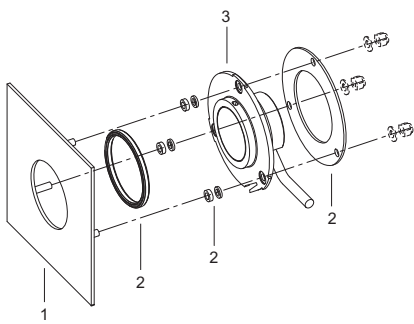
- 1 Front bezel round
- 2 Rounded hexagon screw socket M4 x 25 with O-ring seal
- 3 Switching unit complete
- 4 Glass
- 5 Flange
- 6 Front bezel internal

## Single side indicator and Multi-Tone Sounde Module, front mounting



- 1 Front panel
- 2 Seals, spacers and reinforcement plate  
(see Mounting set Nr. 56-991)
- 3 Indicator- and MTSM unit complete

## Single side pushbutton, front mounting



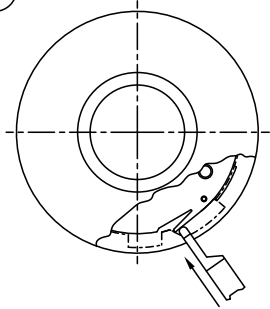
- 1 Front panel
- 2 Seals, spacers and reinforcement plate  
(see Mounting set Nr. 56-991)
- 3 Switching unit complete

## For dismantling tool

For single side indicator and single side pushbutton, front mounting; Double side pushbutton, glass mounting

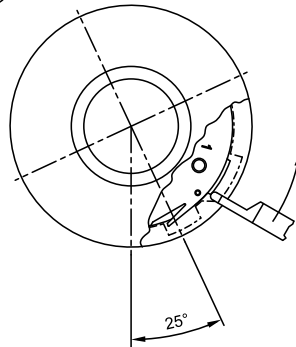
Dismantling tool

1



push Dismantling tool  
Nr. 56-998 into opening

2



turn approx. 25°  
anti-clockwise



## Single side indicator

Indicator unit usable with front bezel :  $\varnothing$  87 x 87 mm | 87 mm dia.  
Order front bezel separately



### Essential Accessories:

Front bezel page 26

	Front protection	Illumination	Marking	Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Single side indicator</b> Operating voltage : 24 VDC	IP 67	LED blue	1 line	<b>56-8213.91</b>	1	3	5	7	0.045
			2 lines	<b>56-8213.92</b>	1	3	5	7	0.045
			3 lines	<b>56-8213.93</b>	1	3	5	7	0.045
			symbol	<b>56-8213.90</b>	1	3	5	7	0.045
			without	<b>56-8213.8</b>	1	3	5	7	0.045
		LED green	1 line	<b>56-2213.91</b>	1	3	5	7	0.045
			2 lines	<b>56-2213.92</b>	1	3	5	7	0.045
			3 lines	<b>56-2213.93</b>	1	3	5	7	0.045
			symbol	<b>56-2213.90</b>	1	3	5	7	0.045
			without	<b>56-2213.8</b>	1	3	5	7	0.045
		LED red	1 line	<b>56-3213.91</b>	1	3	5	7	0.045
			2 lines	<b>56-3213.92</b>	1	3	5	7	0.045
			3 lines	<b>56-3213.93</b>	1	3	5	7	0.045
			symbol	<b>56-3213.90</b>	1	3	5	7	0.045
			without	<b>56-3213.8</b>	1	3	5	7	0.045
		LED white	without	<b>56-9213.8</b>	1	3	5	7	0.045
		LED yellow	1 line	<b>56-6213.91</b>	1	3	5	7	0.045
			2 lines	<b>56-6213.92</b>	1	3	5	7	0.045
			3 lines	<b>56-6213.93</b>	1	3	5	7	0.045
			symbol	<b>56-6213.90</b>	1	3	5	7	0.045
without	<b>56-6213.8</b>		1	3	5	7	0.045		

Standard version:

- Cable length 200 mm; AMP plug-in housing 2.8 x 0.8 mm

Other options available on request:

- Special cable lengths; special plug-in housings

- Operation voltage 110 VDC

Film inserts :

For layout possibilities and price clarifications contact our distributor or subsidiary

In addition the following data are necessary :

1. Text (standard lettering Arial, other lettering on request)
2. Text illumination color (green, yellow, red or blue, background black)
3. Mounting position
4. Symbols with sketch, sample or DXF file

Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49

## Single side indicator raised conical

Indicator unit usable with front bezel :  $\varnothing$  87 x 87 mm | 87 mm dia.  
Order front bezel separately



### Essential Accessories:

Front bezel page 26

	Front protection	Lens cap	Illumination	Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Single side indicator raised conical</b> Operating voltage : 110 VDC	IP 67	Plastic colourless raised	LED blue	<b>56-8913.70</b>	1	3	8	7	0.040
			LED green	<b>56-2913.70</b>	1	3	8	7	0.040
			LED orange	<b>56-4913.70</b>	1	3	8	7	0.040
			LED red	<b>56-3913.70</b>	1	3	8	7	0.040
			LED white	<b>56-9913.70</b>	1	3	8	7	0.040
			LED yellow	<b>56-6913.70</b>	1	3	8	7	0.040
Operating voltage : 24 VDC	IP 67	Plastic colourless raised	LED blue	<b>56-8213.70</b>	1	3	8	7	0.040
			LED green	<b>56-2213.70</b>	1	3	8	7	0.040
			LED orange	<b>56-4213.70</b>	1	3	8	7	0.040
			LED red	<b>56-3213.70</b>	1	3	8	7	0.040
			LED white	<b>56-9213.70</b>	1	3	8	7	0.040
			LED yellow	<b>56-6213.70</b>	1	3	8	7	0.040

Standard version:

- Cable length 200 mm; AMP plug-in housing 2.8 x 0.8 mm

Other options available on request:

- Special cable lengths; special plug-in housings

Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49

## Single side pushbutton


Lens can be marked

Pushbutton unit usable with front bezel :  $\varnothing$  87 x 87 mm | 87 mm dia.

Order front bezel separately




### Essential Accessories:

 Front bezel page 26

	Front protection	Lens	Colour	Display	Typ-Nr.	Component layout				
						Mounting dimensions	Technical drawing	Circuit drawing		
<b>Single side pushbutton</b> Operating voltage : 24 VDC	IP 67	Aluminium blue raised	-	LED 8 green	<b>56-130.22.200.23.04</b>	2	2	4	2	0.100
				LED 8 green 2 red	<b>56-130.22.200.21.04</b>	2	2	4	1	0.100
				LED 8 red	<b>56-130.22.200.24.04</b>	2	2	4	2	0.100
				LED 8 red 2 green	<b>56-130.22.200.22.04</b>	2	2	4	1	0.100
				LED 8 yellow	<b>56-130.22.200.25.04</b>	2	2	4	2	0.100
				without	<b>56-030.04.200.00.04</b>	3	2	4	3	0.100
				LED 8 green	<b>56-130.22.200.23.03</b>	2	2	4	2	0.100
				LED 8 green 2 red	<b>56-130.22.200.21.03</b>	2	2	4	1	0.100
				LED 8 red	<b>56-130.22.200.24.03</b>	2	2	4	2	0.100
				LED 8 red 2 green	<b>56-130.22.200.22.03</b>	2	2	4	1	0.100
				LED 8 yellow	<b>56-130.22.200.25.03</b>	2	2	4	2	0.100
				without	<b>56-030.04.200.00.03</b>	3	2	4	3	0.100
				LED 8 green	<b>56-120.22.200.23.05</b>	2	2	4	2	0.100
				LED 8 green 2 red	<b>56-120.22.200.21.05</b>	2	2	4	1	0.100
				LED 8 red	<b>56-120.22.200.24.05</b>	2	2	4	2	0.100
		LED 8 red 2 green	<b>56-120.22.200.22.05</b>	2	2	4	1	0.100		
		LED 8 yellow	<b>56-120.22.200.25.05</b>	2	2	4	2	0.100		
		without	<b>56-020.04.200.00.05</b>	3	2	4	3	0.100		
		LED 8 green	<b>56-130.22.200.23.05</b>	2	2	4	2	0.100		
		LED 8 green 2 red	<b>56-130.22.200.21.05</b>	2	2	4	1	0.100		
		LED 8 red	<b>56-130.22.200.24.05</b>	2	2	4	2	0.100		
		LED 8 red 2 green	<b>56-130.22.200.22.05</b>	2	2	4	1	0.100		
		LED 8 yellow	<b>56-130.22.200.25.05</b>	2	2	4	2	0.100		
		without	<b>56-030.04.200.00.05</b>	3	2	4	3	0.100		
		LED 8 green	<b>56-130.22.200.23.01</b>	2	2	4	2	0.100		
		LED 8 green 2 red	<b>56-130.22.200.21.01</b>	2	2	4	1	0.100		
		LED 8 red	<b>56-130.22.200.24.01</b>	2	2	4	2	0.100		
		LED 8 red 2 green	<b>56-130.22.200.22.01</b>	2	2	4	1	0.100		
		LED 8 yellow	<b>56-130.22.200.25.01</b>	2	2	4	2	0.100		
		without	<b>56-030.04.200.00.01</b>	3	2	4	3	0.100		
		LED 8 green	<b>56-130.22.200.23.02</b>	2	2	4	2	0.100		
		LED 8 green 2 red	<b>56-130.22.200.21.02</b>	2	2	4	1	0.100		
		LED 8 red	<b>56-130.22.200.24.02</b>	2	2	4	2	0.100		
		LED 8 red 2 green	<b>56-130.22.200.22.02</b>	2	2	4	1	0.100		
		LED 8 yellow	<b>56-130.22.200.25.02</b>	2	2	4	2	0.100		
		without	<b>56-030.04.200.00.02</b>	3	2	4	3	0.100		

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	Front protection	Lens	Colour	Display	Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Single side pushbutton</b> Operating voltage : 24 VDC	IP 67	Plastic blue flush	RAL 5017	LED 8 green	<b>56-110.22.200.23.04</b>	2	2	4	2	0.100
				LED 8 green 2 red	<b>56-110.22.200.21.04</b>	2	2	4	1	0.100
				LED 8 red	<b>56-110.22.200.24.04</b>	2	2	4	2	0.100
				LED 8 red 2 green	<b>56-110.22.200.22.04</b>	2	2	4	1	0.100
				LED 8 yellow	<b>56-110.22.200.25.04</b>	2	2	4	2	0.100
				without	<b>56-010.04.200.00.04</b>	3	2	4	3	0.100
		Plastic green flush	RAL 6024	LED 8 green	<b>56-110.22.200.23.03</b>	2	2	4	2	0.100
				LED 8 green 2 red	<b>56-110.22.200.21.03</b>	2	2	4	1	0.100
				LED 8 red	<b>56-110.22.200.24.03</b>	2	2	4	2	0.100
				LED 8 red 2 green	<b>56-110.22.200.22.03</b>	2	2	4	1	0.100
				LED 8 yellow	<b>56-110.22.200.25.03</b>	2	2	4	2	0.100
				without	<b>56-010.04.200.00.03</b>	3	2	4	3	0.100
		Plastic red flush	RAL 3020	LED 8 green	<b>56-110.22.200.23.01</b>	2	2	4	2	0.100
				LED 8 green 2 red	<b>56-110.22.200.21.01</b>	2	2	4	1	0.100
				LED 8 red	<b>56-110.22.200.24.01</b>	2	2	4	2	0.100
				LED 8 red 2 green	<b>56-110.22.200.22.01</b>	2	2	4	1	0.100
				LED 8 yellow	<b>56-110.22.200.25.01</b>	2	2	4	2	0.100
				without	<b>56-010.04.200.00.01</b>	3	2	4	3	0.100
		Plastic yellow flush	RAL 1023	LED 8 green	<b>56-110.22.200.23.02</b>	2	2	4	2	0.100
				LED 8 green 2 red	<b>56-110.22.200.21.02</b>	2	2	4	1	0.100
				LED 8 red	<b>56-110.22.200.24.02</b>	2	2	4	2	0.100
				LED 8 red 2 green	<b>56-110.22.200.22.02</b>	2	2	4	1	0.100
				LED 8 yellow	<b>56-110.22.200.25.02</b>	2	2	4	2	0.100
				without	<b>56-010.04.200.00.02</b>	3	2	4	3	0.100

Standard version:

- Cable length 200 mm; AMP plug-in housing 2.8 x 0.8 mm

Other options available on request:

- Special cable lengths; special plug-in housings

- Operation voltage 36, 48, 72, 96, 110 VDC

- Customer specific lens colours

- Various symbols

Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49

## Multi-Tone Sound Module 5-tone sequences with front bezel



	Front protection	Front bezel	Speaker cap	Marking	Tone sequence	Ø 87 x 87 mm Typ-Nr.	Ø 87 mm Typ-Nr.	Component layout		Mounting dimensions		Technical drawing		Circuit drawing
<b>Multi-Tone Sound Module 5-tone sequences with front bezel</b> Operating voltage: 24 VDC	IP 69K	Metal mat-chrome	Plastic black flush	Symbol	T	<b>56-61011-00.12</b>		4	3	10	4	0.142		
			Plastic black raised	Symbol	M	<b>56-61011-00.7</b>		4	3	11	4	0.145		
		without		M	<b>56-61001-00.6</b>		4	3	11	4	0.145			
				T	<b>56-61001-00.11</b>		4	3	11	4	0.145			
		Plastic blue	Plastic black flush	Symbol	T	<b>56-61011-00.11</b>		4	3	10	4	0.083		
			Plastic black raised	Symbol	M	<b>56-61011-00.6</b>		4	3	11	4	0.086		
		without		M	<b>56-61001-00.5</b>		4	3	11	4	0.086			
				T	<b>56-61001-00.10</b>		4	3	11	4	0.086			
		Plastic green	Plastic black flush	Symbol	T	<b>56-61011-00.10</b>		4	3	10	4	0.083		
			Plastic black raised	Symbol	M	<b>56-61011-00.5</b>		4	3	11	4	0.086		
		without		M	<b>56-61001-00.4</b>		4	3	11	4	0.086			
				T	<b>56-61001-00.9</b>		4	3	11	4	0.086			
		Plastic red	Plastic black flush	Symbol	T	<b>56-61011-00.8</b>		4	3	10	4	0.083		
			Plastic black raised	Symbol	M	<b>56-61011-00.3</b>		4	3	11	4	0.086		
		without		M	<b>56-61001-00.2</b>		4	3	11	4	0.086			
				T	<b>56-61001-00.7</b>		4	3	11	4	0.086			
		Plastic yellow	Plastic black flush	Symbol	T	<b>56-61011-00.9</b>		4	3	10	4	0.083		
			Plastic black raised	Symbol	M	<b>56-61011-00.4</b>		4	3	11	4	0.086		
		without		M	<b>56-61001-00.3</b>		4	3	11	4	0.086			
				T	<b>56-61001-00.8</b>		4	3	11	4	0.086			
		Metal mat-chrome	Plastic black flush	Symbol	T		<b>56-61011-00.26</b>	4	3	10	4	0.127		
			Plastic black raised	Symbol	M		<b>56-61011-00.19</b>	4	3	11	4	0.130		
		without		M		<b>56-61001-00.18</b>	4	3	11	4	0.130			
				T		<b>56-61001-00.25</b>	4	3	11	4	0.130			
		Plastic black	Plastic black flush	Symbol	T		<b>56-61011-00.21</b>	4	3	10	4	0.078		
			Plastic black raised	Symbol	M		<b>56-61011-00.14</b>	4	3	11	4	0.078		
		without		M		<b>56-61001-00.13</b>	4	3	11	4	0.078			
				T		<b>56-61001-00.20</b>	4	3	11	4	0.078			
		Plastic blue	Plastic black flush	Symbol	T		<b>56-61011-00.25</b>	4	3	10	4	0.078		
			Plastic black raised	Symbol	M		<b>56-61011-00.18</b>	4	3	11	4	0.078		
		without		M		<b>56-61001-00.17</b>	4	3	11	4	0.078			
				T		<b>56-61001-00.24</b>	4	3	11	4	0.078			
		Plastic green	Plastic black flush	Symbol	T		<b>56-61011-00.23</b>	4	3	10	4	0.078		
			Plastic black raised	Symbol	M		<b>56-61011-00.16</b>	4	3	11	4	0.078		
		without		M		<b>56-61001-00.15</b>	4	3	11	4	0.078			
				T		<b>56-61001-00.22</b>	4	3	11	4	0.078			

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	Front protection	Front bezel	Speaker cap	Marking	Tone sequence	□ 87 x 87 mm Typ-Nr.	∅ 87 mm Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Multi-Tone Sound Module 5-tone sequences with front bezel</b> Operating voltage: 24 VDC	IP 69K	Plastic orange	Plastic black flush	Symbol	T		<b>56-61011-00.24</b>	4	3	10	4	0.078
				without	M		<b>56-61011-00.17</b>	4	3	11	4	0.078
					M		<b>56-61001-00.16</b>	4	3	11	4	0.078
					T		<b>56-61001-00.23</b>	4	3	11	4	0.078
		Plastic red	Plastic black flush	Symbol	T		<b>56-61011-00.20</b>	4	3	10	4	0.078
				without	M		<b>56-61011-00.13</b>	4	3	11	4	0.078
					M		<b>56-61001-00.12</b>	4	3	11	4	0.078
					T		<b>56-61001-00.19</b>	4	3	11	4	0.078
		Plastic yellow	Plastic black flush	Symbol	T		<b>56-61011-00.22</b>	4	3	10	4	0.078
				without	M		<b>56-61011-00.15</b>	4	3	11	4	0.078
					M		<b>56-61001-00.14</b>	4	3	11	4	0.078
					T		<b>56-61001-00.21</b>	4	3	11	4	0.078

Standard version:

- Cable length 200 mm; six-core; without connector
- Volume control by switch on back of 56 MTSM
- Five pre-programmed standard tone sequences for "Transportation (T)"
- Five pre-programmed standard tone sequences for "Machinery (M)"
- Customer specific tone sequences are factory-programmed by EAO

Detailed data regarding the 56 MTSM module can be found in the section "Typical Applications"

Other options available on request:

- Special cable lengths; special plug-in housings
- Customer specific tone sequences by programmable means of EAO Tone Editor Software

Tone sequence: T = Transportation 1-5, M = Machinery 6-10

Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49

## Multi-Tone Sound Module 5-tone sequences

MTSM module usable with front bezel : □ 87 mm | 87 mm dia.  
Order front bezel separately



### Essential Accessories:

🛒 Front bezel page 26

	Front protection	Speaker cap	Marking	Tone sequence		Component layout		Mounting dimensions		Technical drawing		Circuit drawing	EAO
				Symbol	Typ-Nr.								
<b>Multi-Tone Sound Module 5-tone sequences</b> Operating voltage: 24 VDC	IP 69K	Plastic black flush	Symbol	M	<b>56-61010-00.9</b>	4	3	10	4	0.057			
				T	<b>56-61010-00.7</b>	4	3	10	4	0.057			
			without	M	<b>56-61000-00.10</b>	4	3	10	4	0.057			
				T	<b>56-61000-00.8</b>	4	3	10	4	0.057			
		Plastic black raised	Symbol	M	<b>56-61010-00.8</b>	4	3	11	4	0.060			
				T	<b>56-61010-00.6</b>	4	3	11	4	0.060			
			without	M	<b>56-61000-00.9</b>	4	3	11	4	0.060			
				T	<b>56-61000-00.7</b>	4	3	11	4	0.060			

### Standard version:

- Cable length 200 mm; six-core; without connector
- Volume control by switch on back of 56 MTSM
- Five pre-programmed standard tone sequences for "Transportation (T)"
- Five pre-programmed standard tone sequences for "Machinery (M)"
- Customer specific tone sequences are factory-programmed by EAO

Detailed data regarding the 56 MTSM module can be found in the section "Typical Applications"

### Other options available on request:

- Special cable lengths; special plug-in housings
- Customer specific tone sequences by programmable means of EAO Tone Editor Software

Tone sequence: M = Machinery 6-10, T = Transportation 1-5

Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49

## Multi-Tone Sound Module 3-tone sequences

MTSM module usable with front bezel :  $\square$  87 mm | 87 mm dia.  
Order front bezel separately



### Essential Accessories:

Front bezel page 26

	Front protection	Speaker cap	Marking	Tone sequence	Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Multi-Tone Sound Module 3-tone sequences</b>	IP 40	Plastic black flush	Symbol	T1	<b>56-0203.M.1210</b>	5	3	10	5	0.057
Operating voltage: 24 - 48 VDC	IP 69K	Plastic black flush	Symbol	T1	<b>56-0213.M.1211</b>	5	3	10	5	0.057
Operating voltage: 72 - 110 VDC	IP 40	Plastic black flush	Symbol	T1	<b>56-0903.M.1213</b>	5	3	10	6	0.057
	IP 69K	Plastic black flush	Symbol	T1	<b>56-0913.M.1214</b>	5	3	10	6	0.057

Standard version:

- Cable length 200 mm; four-core; without connector
- Volume control by wire of 56 MTSM
- Three pre-programmed standard tone sequences for "Transportation (T1)"
- Customer specific tone sequences are factory-programmed by EAO
- TSI conformity

Detailed data regarding the 56 MTSM module can be found in the section "Typical Applications"

Other options available on request:

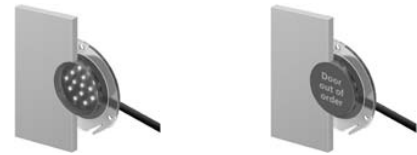
- Special cable lengths; special plug-in housings
- Operation voltage 12 VDC  $\pm$ 30 %
- Customer specific tone sequences by programmable means of EAO Tone Editor Software
- Volume Control Box available

Tone sequence: T1 = Transportation 1-3

Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49



## Single side indicator



	Front protection	Illumination	Marking	Ø 43 mm Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Single side indicator</b> Operating voltage : 24 VDC	IP 67	LED blue	1 line	<b>56-8213.91</b>	1	4	6	7	0.045
			2 lines	<b>56-8213.92</b>	1	4	6	7	0.045
			3 lines	<b>56-8213.93</b>	1	4	6	7	0.045
			symbol	<b>56-8213.90</b>	1	4	6	7	0.045
			without	<b>56-8213.8</b>	1	4	6	7	0.045
		LED green	1 line	<b>56-2213.91</b>	1	4	6	7	0.045
			2 lines	<b>56-2213.92</b>	1	4	6	7	0.045
			3 lines	<b>56-2213.93</b>	1	4	6	7	0.045
			symbol	<b>56-2213.90</b>	1	4	6	7	0.045
			without	<b>56-2213.8</b>	1	4	6	7	0.045
		LED red	1 line	<b>56-3213.91</b>	1	4	6	7	0.045
			2 lines	<b>56-3213.92</b>	1	4	6	7	0.045
			3 lines	<b>56-3213.93</b>	1	4	6	7	0.045
			symbol	<b>56-3213.90</b>	1	4	6	7	0.045
			without	<b>56-3213.8</b>	1	4	6	7	0.045
		LED white	without	<b>56-9213.8</b>	1	4	6	7	0.045
		LED yellow	1 line	<b>56-6213.91</b>	1	4	6	7	0.045
			2 lines	<b>56-6213.92</b>	1	4	6	7	0.045
			3 lines	<b>56-6213.93</b>	1	4	6	7	0.045
			symbol	<b>56-6213.90</b>	1	4	6	7	0.045
without	<b>56-6213.8</b>		1	4	6	7	0.045		

**Standard version:**

- Cable length 200 mm; AMP plug-in housing 2.8 x 0.8 mm

Other options available on request:

- Special cable lengths; special plug-in housings

- Operation voltage 110 VDC

Film inserts :

For layout possibilities and price clarifications contact our distributor or subsidiary


In addition the following data are necessary :

1. Text (standard lettering Arial, other lettering on request)
2. Text illumination color (green, yellow, red or blue, background black)
3. Mounting position
4. Symbols with sketch, sample or DXF file

Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49

## Single side indicator raised conical



	Front protection	Lens cap	Illumination	Ø 43 mm Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Single side indicator raised conical</b> Operating voltage : 110 VDC	IP 67	Plastic colourless	LED blue	<b>56-8913.70</b>	1	4	9	7	0.040
			LED green	<b>56-2913.70</b>	1	4	9	7	0.040
			LED orange	<b>56-4913.70</b>	1	4	9	7	0.040
			LED red	<b>56-3913.70</b>	1	4	9	7	0.040
			LED white	<b>56-9913.70</b>	1	4	9	7	0.040
			LED yellow	<b>56-6913.70</b>	1	4	9	7	0.040
Operating voltage : 24 VDC	IP 67	Plastic colourless	LED blue	<b>56-8213.70</b>	1	4	9	7	0.040
			LED green	<b>56-2213.70</b>	1	4	9	7	0.040
			LED orange	<b>56-4213.70</b>	1	4	9	7	0.040
			LED red	<b>56-3213.70</b>	1	4	9	7	0.040
			LED white	<b>56-9213.70</b>	1	4	9	7	0.040
			LED yellow	<b>56-6213.70</b>	1	4	9	7	0.040

Standard version:

- Cable length 200 mm; AMP plug-in housing 2.8 x 0.8 mm

Other options available on request:

- Special cable lengths; special plug-in housings

Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49

## Single side pushbutton

Lens can be marked




	Front protection	Lens	Colour	Display	Ø 43 mm Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Single side pushbutton</b> Operating voltage : 24 VDC	IP 67	Aluminium blue raised	-	LED 8 green	<b>56-130.22.200.23.04</b>	2	1	3	2	0.100
				LED 8 green 2 red	<b>56-130.22.200.21.04</b>	2	1	3	1	0.100
				LED 8 red	<b>56-130.22.200.24.04</b>	2	1	3	2	0.100
				LED 8 red 2 green	<b>56-130.22.200.22.04</b>	2	1	3	1	0.100
				LED 8 yellow	<b>56-130.22.200.25.04</b>	2	1	3	2	0.100
				without	<b>56-030.04.200.00.04</b>	3	1	3	3	0.100
		Aluminium green raised	-	LED 8 green	<b>56-130.22.200.23.03</b>	2	1	3	2	0.100
				LED 8 green 2 red	<b>56-130.22.200.21.03</b>	2	1	3	1	0.100
				LED 8 red	<b>56-130.22.200.24.03</b>	2	1	3	2	0.100
				LED 8 red 2 green	<b>56-130.22.200.22.03</b>	2	1	3	1	0.100
				LED 8 yellow	<b>56-130.22.200.25.03</b>	2	1	3	2	0.100
				without	<b>56-030.04.200.00.03</b>	3	1	3	3	0.100
		Aluminium natural flush	-	LED 8 green	<b>56-120.22.200.23.05</b>	2	1	3	2	0.100
				LED 8 green 2 red	<b>56-120.22.200.21.05</b>	2	1	3	1	0.100
				LED 8 red	<b>56-120.22.200.24.05</b>	2	1	3	2	0.100
				LED 8 red 2 green	<b>56-120.22.200.22.05</b>	2	1	3	1	0.100
				LED 8 yellow	<b>56-120.22.200.25.05</b>	2	1	3	2	0.100
				without	<b>56-020.04.200.00.05</b>	3	1	3	3	0.100
		Aluminium natural raised	-	LED 8 green	<b>56-130.22.200.23.05</b>	2	1	3	2	0.100
				LED 8 green 2 red	<b>56-130.22.200.21.05</b>	2	1	3	1	0.100
				LED 8 red	<b>56-130.22.200.24.05</b>	2	1	3	2	0.100
				LED 8 red 2 green	<b>56-130.22.200.22.05</b>	2	1	3	1	0.100
				LED 8 yellow	<b>56-130.22.200.25.05</b>	2	1	3	2	0.100
				without	<b>56-030.04.200.00.05</b>	3	1	3	3	0.100
		Aluminium red raised	-	LED 8 green	<b>56-130.22.200.23.01</b>	2	1	3	2	0.100
				LED 8 green 2 red	<b>56-130.22.200.21.01</b>	2	1	3	1	0.100
				LED 8 red	<b>56-130.22.200.24.01</b>	2	1	3	2	0.100
				LED 8 red 2 green	<b>56-130.22.200.22.01</b>	2	1	3	1	0.100
				LED 8 yellow	<b>56-130.22.200.25.01</b>	2	1	3	2	0.100
				without	<b>56-030.04.200.00.01</b>	3	1	3	3	0.100
		Aluminium yellow raised	-	LED 8 green	<b>56-130.22.200.23.02</b>	2	1	3	2	0.100
				LED 8 green 2 red	<b>56-130.22.200.21.02</b>	2	1	3	1	0.100
				LED 8 red	<b>56-130.22.200.24.02</b>	2	1	3	2	0.100
				LED 8 red 2 green	<b>56-130.22.200.22.02</b>	2	1	3	1	0.100
				LED 8 yellow	<b>56-130.22.200.25.02</b>	2	1	3	2	0.100
				without	<b>56-030.04.200.00.02</b>	3	1	3	3	0.100

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	Front protection	Lens	Colour	Display	Ø 43 mm Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Single side pushbutton</b> Operating voltage : 24 VDC	IP 67	Plastic blue flush	RAL 5017	LED 8 green	<b>56-110.22.200.23.04</b>	2	1	3	2	0.100
				LED 8 green 2 red	<b>56-110.22.200.21.04</b>	2	1	3	1	0.100
				LED 8 red	<b>56-110.22.200.24.04</b>	2	1	3	2	0.100
				LED 8 red 2 green	<b>56-110.22.200.22.04</b>	2	1	3	1	0.100
				LED 8 yellow	<b>56-110.22.200.25.04</b>	2	1	3	2	0.100
				without	<b>56-010.04.200.00.04</b>	3	1	3	3	0.100
		Plastic green flush	RAL 6024	LED 8 green	<b>56-110.22.200.23.03</b>	2	1	3	2	0.100
				LED 8 green 2 red	<b>56-110.22.200.21.03</b>	2	1	3	1	0.100
				LED 8 red	<b>56-110.22.200.24.03</b>	2	1	3	2	0.100
				LED 8 red 2 green	<b>56-110.22.200.22.03</b>	2	1	3	1	0.100
				LED 8 yellow	<b>56-110.22.200.25.03</b>	2	1	3	2	0.100
				without	<b>56-010.04.200.00.03</b>	3	1	3	3	0.100
		Plastic red flush	RAL 3020	LED 8 green	<b>56-110.22.200.23.01</b>	2	1	3	2	0.100
				LED 8 green 2 red	<b>56-110.22.200.21.01</b>	2	1	3	1	0.100
				LED 8 red	<b>56-110.22.200.24.01</b>	2	1	3	2	0.100
				LED 8 red 2 green	<b>56-110.22.200.22.01</b>	2	1	3	1	0.100
				LED 8 yellow	<b>56-110.22.200.25.01</b>	2	1	3	2	0.100
				without	<b>56-010.04.200.00.01</b>	3	1	3	3	0.100
		Plastic yellow flush	RAL 1023	LED 8 green	<b>56-110.22.200.23.02</b>	2	1	3	2	0.100
				LED 8 green 2 red	<b>56-110.22.200.21.02</b>	2	1	3	1	0.100
				LED 8 red	<b>56-110.22.200.24.02</b>	2	1	3	2	0.100
				LED 8 red 2 green	<b>56-110.22.200.22.02</b>	2	1	3	1	0.100
				LED 8 yellow	<b>56-110.22.200.25.02</b>	2	1	3	2	0.100
				without	<b>56-010.04.200.00.02</b>	3	1	3	3	0.100

Standard version:

- Cable length 200 mm; AMP plug-in housing 2.8 x 0.8 mm

Other options available on request:

- Special cable lengths; special plug-in housings

- Operation voltage 36, 48, 72, 96, 110 VDC

- Customer specific lens colours

- Various symbols

Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49

## Multi-Tone Sound Module 5-tone sequences



	Front protection	Speaker cap	Marking	Tone sequence	Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Multi-Tone Sound Module 5-tone sequences</b> Operating voltage: 24 VDC	IP 69K	Plastic black flush	Symbol	M	<b>56-61010-00.9</b>	4	4	12	4	0.057
				T	<b>56-61010-00.7</b>	4	4	12	4	0.057
			without	M	<b>56-61000-00.10</b>	4	4	12	4	0.057
				T	<b>56-61000-00.8</b>	4	4	12	4	0.057
		Plastic black raised	Symbol	M	<b>56-61010-00.8</b>	4	4	13	4	0.060
				T	<b>56-61010-00.6</b>	4	4	13	4	0.060
			without	M	<b>56-61000-00.9</b>	4	4	13	4	0.060
				T	<b>56-61000-00.7</b>	4	4	13	4	0.060

Standard version:

- Cable length 200 mm; six-core; without connector
- Volume control by switch on back of 56 MTSM
- Five pre-programmed standard tone sequences for "Transportation (T)"
- Five pre-programmed standard tone sequences for "Machinery (M)"
- Customer specific tone sequences are factory-programmed by EAO

Detailed data regarding the 56 MTSM module can be found in the section "Typical Applications"

Other options available on request:

- Special cable lengths; special plug-in housings
- Customer specific tone sequences by programmable means of EAO Tone Editor Software

Tone sequence: M = Machinery 6-10, T = Transportation 1-5

Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49

## Multi-Tone Sound Module 3-tone sequences



	Front protection	Speaker cap	Marking	Tone sequence	Ø 43 mm Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Multi-Tone Sound Module 3-tone sequences</b>	IP 40	Plastic black flush	Symbol	T1	<b>56-0203.M.1210</b>	5	4	12	5	0.057
Operating voltage: 24 - 48 VDC	IP 69K	Plastic black flush	Symbol	T1	<b>56-0213.M.1211</b>	5	4	12	5	0.057
Operating voltage: 72 - 110 VDC	IP 40	Plastic black flush	Symbol	T1	<b>56-0903.M.1213</b>	5	4	12	6	0.057
	IP 69K	Plastic black flush	Symbol	T1	<b>56-0913.M.1214</b>	5	4	12	6	0.057

### Standard version:

- Cable length 200 mm; four-core; without connector
- Volume control by wire of 56 MTSM
- Three pre-programmed standard tone sequences for "Transportation (T1)"
- Customer specific tone sequences are factory-programmed by EAO
- TSI conformity

Detailed data regarding the 56 MTSM module can be found in the section "Typical Applications"

### Other options available on request:

- Special cable lengths; special plug-in housings
- Operation voltage 12 VDC ±30 %
- Customer specific tone sequences by programmable means of EAO Tone Editor Software
- Volume Control Box available

Tone sequence: T1 = Transportation 1-3


Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49


## Single side pushbutton

Order front bezel separately



### Essential Accessories:

 Front bezel page 26


	Front protection	Lens	Colour	Display	Ø 87 mm Typ-Nr.	Component layout						
						Mounting dimensions	Technical drawing	Circuit drawing				
<b>Single side pushbutton</b> Operating voltage : 24 VDC	IP 67	Aluminium blue raised	-	LED 8 green	<b>56-2213.4600G</b>	2	7	14	2	0.045		
				LED 8 green 2 red	<b>56-1213.4600G</b>	2	7	14	1	0.045		
				LED 8 red	<b>56-3213.4600G</b>	2	7	14	2	0.045		
				LED 8 red 2 green	<b>56-4213.4600G</b>	2	7	14	1	0.045		
				without	<b>56-5013.4600G</b>	3	7	14	3	0.045		
				Aluminium green raised	-	LED 8 green	<b>56-2213.4500G</b>	2	7	14	2	0.045
						LED 8 green 2 red	<b>56-1213.4500G</b>	2	7	14	1	0.045
						LED 8 red	<b>56-3213.4500G</b>	2	7	14	2	0.045
						LED 8 red 2 green	<b>56-4213.4500G</b>	2	7	14	1	0.045
						without	<b>56-5013.4500G</b>	3	7	14	3	0.045
				Aluminium natural flush	-	LED 8 green	<b>56-2213.2600G</b>	2	7	14	2	0.045
						LED 8 green 2 red	<b>56-1213.2600G</b>	2	7	14	1	0.045
						LED 8 red	<b>56-3213.2600G</b>	2	7	14	2	0.045
						LED 8 red 2 green	<b>56-4213.2600G</b>	2	7	14	1	0.045
						without	<b>56-5013.2600G</b>	3	7	14	3	0.045
				Aluminium natural raised	-	LED 8 green	<b>56-2213.4800G</b>	2	7	14	2	0.045
						LED 8 green 2 red	<b>56-1213.4800G</b>	2	7	14	1	0.045
						LED 8 red	<b>56-3213.4800G</b>	2	7	14	2	0.045
						LED 8 red 2 green	<b>56-4213.4800G</b>	2	7	14	1	0.045
						without	<b>56-5013.4800G</b>	3	7	14	3	0.045
		Aluminium red raised	-	LED 8 green	<b>56-2213.4200G</b>	2	7	14	2	0.045		
				LED 8 green 2 red	<b>56-1213.4200G</b>	2	7	14	1	0.045		
				LED 8 red	<b>56-3213.4200G</b>	2	7	14	2	0.045		
				LED 8 red 2 green	<b>56-4213.4200G</b>	2	7	14	1	0.045		
				without	<b>56-5013.4200G</b>	3	7	14	3	0.045		
		Aluminium yellow raised	-	LED 8 green	<b>56-2213.4400G</b>	2	7	14	2	0.045		
				LED 8 green 2 red	<b>56-1213.4400G</b>	2	7	14	1	0.045		
				LED 8 red	<b>56-3213.4400G</b>	2	7	14	2	0.045		
				LED 8 red 2 green	<b>56-4213.4400G</b>	2	7	14	1	0.045		
				without	<b>56-5013.4400G</b>	3	7	14	3	0.045		
		Plastic blue flush	RAL 5017	LED 8 green	<b>56-2213.1600G</b>	2	7	14	2	0.045		
				LED 8 green 2 red	<b>56-1213.1600G</b>	2	7	14	1	0.045		
				LED 8 red	<b>56-3213.1600G</b>	2	7	14	2	0.045		
				LED 8 red 2 green	<b>56-4213.1600G</b>	2	7	14	1	0.045		
				without	<b>56-5013.1600G</b>	3	7	14	3	0.045		

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	Front protection	Lens	Colour	Display	Ø 87 mm Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Single side pushbutton</b> Operating voltage : 24 VDC	IP 67	Plastic green flush	RAL 6024	LED 8 green	<b>56-2213.1500G</b>	2	7	14	2	0.045
				LED 8 green 2 red	<b>56-1213.1500G</b>	2	7	14	1	0.045
				LED 8 red	<b>56-3213.1500G</b>	2	7	14	2	0.045
				LED 8 red 2 green	<b>56-4213.1500G</b>	2	7	14	1	0.045
				without	<b>56-5013.1500G</b>	3	7	14	3	0.045
		Plastic red flush	RAL 3020	LED 8 green	<b>56-2213.1200G</b>	2	7	14	2	0.045
				LED 8 green 2 red	<b>56-1213.1200G</b>	2	7	14	1	0.045
				LED 8 red	<b>56-3213.1200G</b>	2	7	14	2	0.045
				LED 8 red 2 green	<b>56-4213.1200G</b>	2	7	14	1	0.045
				without	<b>56-5013.1200G</b>	3	7	14	3	0.045
		Plastic yellow flush	RAL 1023	LED 8 green	<b>56-2213.1400G</b>	2	7	14	2	0.045
				LED 8 green 2 red	<b>56-1213.1400G</b>	2	7	14	1	0.045
	LED 8 red			<b>56-3213.1400G</b>	2	7	14	2	0.045	
	LED 8 red 2 green			<b>56-4213.1400G</b>	2	7	14	1	0.045	
	without			<b>56-5013.1400G</b>	3	7	14	3	0.045	

Standard version:

- Cable length 200 mm; AMP plug-in housing 2.8 x 0.8 mm

Other options available on request:

- Special cable lengths; special plug-in housings

- Operation voltage 36, 48, 72, 96, 110 VDC

- Customer specific lens colours

- Various symbols

Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49






## Double side pushbutton

Order front bezel separately



### Essential Accessories:

-  Front bezel page 26
-  Front bezel internal page 26

	Front protection	Lens	Colour	Display	Ø 87 mm Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing			
<b>Double side pushbutton</b> Operating voltage : 24 VDC	IP 67	Aluminium blue raised	-	LED 16 green	<b>56-2213.460046</b>	2	7	15	2	0.175		
				LED 16 green 4 red	<b>56-1213.460046</b>	2	7	15	1	0.175		
				LED 16 red	<b>56-3213.460046</b>	2	7	15	2	0.175		
				LED 16 red 4 green	<b>56-4213.460046</b>	2	7	15	1	0.175		
				without	<b>56-5013.460046</b>	3	7	15	3	0.175		
				LED 16 green	<b>56-2213.450045</b>	2	7	15	2	0.175		
				LED 16 green 4 red	<b>56-1213.450045</b>	2	7	15	1	0.175		
				LED 16 red	<b>56-3213.450045</b>	2	7	15	2	0.175		
				LED 16 red 4 green	<b>56-4213.450045</b>	2	7	15	1	0.175		
				without	<b>56-5013.450045</b>	3	7	15	3	0.175		
				LED 16 green	<b>56-2213.260026</b>	2	7	15	2	0.175		
				LED 16 green 4 red	<b>56-1213.260026</b>	2	7	15	1	0.175		
		LED 16 red	<b>56-3213.260026</b>	2	7	15	2	0.175				
		LED 16 red 4 green	<b>56-4213.260026</b>	2	7	15	1	0.175				
		without	<b>56-5013.260026</b>	3	7	15	3	0.175				
		LED 16 green	<b>56-2213.480048</b>	2	7	15	2	0.175				
		LED 16 green 4 red	<b>56-1213.480048</b>	2	7	15	1	0.175				
		LED 16 red	<b>56-3213.480048</b>	2	7	15	2	0.175				
		LED 16 red 4 green	<b>56-4213.480048</b>	2	7	15	1	0.175				
		without	<b>56-5013.480048</b>	3	7	15	3	0.175				
		LED 16 green	<b>56-2213.420042</b>	2	7	15	2	0.175				
		LED 16 green 4 red	<b>56-1213.420042</b>	2	7	15	1	0.175				
		LED 16 red	<b>56-3213.420042</b>	2	7	15	2	0.175				
		LED 16 red 4 green	<b>56-4213.420042</b>	2	7	15	1	0.175				
		without	<b>56-5013.420042</b>	3	7	15	3	0.175				
		LED 16 green	<b>56-2213.440044</b>	2	7	15	2	0.175				
		LED 16 green 4 red	<b>56-1213.440044</b>	2	7	15	1	0.175				
		LED 16 red	<b>56-3213.440044</b>	2	7	15	2	0.175				
		LED 16 red 4 green	<b>56-4213.440044</b>	2	7	15	1	0.175				
		without	<b>56-5013.440044</b>	3	7	15	3	0.175				
		LED 16 green	<b>56-2213.160016</b>	2	7	15	2	0.175				
		LED 16 green 4 red	<b>56-1213.160016</b>	2	7	15	1	0.175				
		LED 16 red	<b>56-3213.160016</b>	2	7	15	2	0.175				
		LED 16 red 4 green	<b>56-4213.160016</b>	2	7	15	1	0.175				
		without	<b>56-5013.160016</b>	3	7	15	3	0.175				
				Plastic blue flush	RAL 5017	LED 16 green	<b>56-2213.160016</b>	2	7	15	2	0.175
						LED 16 green 4 red	<b>56-1213.160016</b>	2	7	15	1	0.175
						LED 16 red	<b>56-3213.160016</b>	2	7	15	2	0.175
						LED 16 red 4 green	<b>56-4213.160016</b>	2	7	15	1	0.175
						without	<b>56-5013.160016</b>	3	7	15	3	0.175

Continuation see next page

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## Multi-Tone Sound Module 3-tone sequences

Order front bezel separately



### Essential Accessories:

 Front bezel page 26

	Front protection	Speaker cap	Marking	Tone sequence	Ø 87 mm Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	Circuit drawing	
<b>Multi-Tone Sound Module 3-tone sequences</b> Operating voltage: 24 - 48 VDC	IP 69K	Plastic black flush	Symbol	T1	<b>56-0213.MG.1212</b>	5	7	7	5	0.091
Operating voltage: 72 - 110 VDC	IP 69K	Plastic black flush	Symbol	T1	<b>56-0913.MG.1215</b>	5	7	7	6	0.091

Standard version:

- Cable length 200 mm; four-core; without connector
- Volume control by wire of 56 MTSM
- Three pre-programmed standard tone sequences for "Transportation (T1)"
- Customer specific tone sequences are factory-programmed by EAO
- TSI conformity

Detailed data regarding the 56 MTSM module can be found in the section "Typical Applications"

Other options available on request:


- Special cable lengths; special plug-in housings
- Operation voltage 12 VDC  $\pm 30\%$
- Customer specific tone sequences by programmable means of EAO Tone Editor Software
- Volume Control Box available

Tone sequence: T1 = Transportation 1-3

Component layout from page 36, Mounting dimensions from page 37, Technical drawing from page 42, Circuit drawing from page 49

## Front

### Front bezel

	Front bezel	Colour	⌀ 87 x 87 mm Typ-Nr.	Ø 87 mm Typ-Nr.	
<b>Front bezel</b> For single side indicator and single side pushbutton, front mounting	Metal mat-chrome	-	<b>56-4600</b>		0.085
	Plastic blue	RAL 5017	<b>56-2600</b>		0.026
	Plastic green	RAL 6024	<b>56-2500</b>		0.026
	Plastic red	RAL 3020	<b>56-2200</b>		0.026
	Plastic yellow	RAL 1023	<b>56-2400</b>		0.026
For single side indicator and single side pushbutton; Double side pushbutton external	Metal mat-chrome	-		<b>56-3600</b>	0.070
	Plastic black	RAL 9017		<b>56-1000</b>	0.018
	Plastic blue	RAL 5017		<b>56-1600</b>	0.018
	Plastic dark	RAL 7043		<b>56-1800</b>	0.018
	Plastic green	RAL 6024		<b>56-1500</b>	0.018
	Plastic light-grey	RAL 7040		<b>56-1800A</b>	0.018
	Plastic orange	RAL 2003		<b>56-1300</b>	0.018
	Plastic red	RAL 3020		<b>56-1200</b>	0.018
	Plastic yellow	RAL 1023		<b>56-1400</b>	0.018



Special colours for front bezel on request


### Front bezel internal

	Front bezel	Colour	Typ-Nr.	
<b>Front bezel internal</b> For double side pushbutton	Metal mat-chrome	-	<b>56-7600</b>	0.115
	Plastic blue	RAL 5017	<b>56-5600</b>	0.090
	Plastic dark	RAL 7043	<b>56-5800</b>	0.090
	Plastic green	RAL 6024	<b>56-5500</b>	0.090
	Plastic light-grey	RAL 7040	<b>56-5800A</b>	0.090
	Plastic orange	RAL 2003	<b>56-5300</b>	0.090
	Plastic red	RAL 3020	<b>56-5200</b>	0.090
	Plastic yellow	RAL 1023	<b>56-5400</b>	0.090



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

Cable entry right


	Front bezel	Colour	Marking	Ø 87 mm Typ-Nr.	
<b>Front bezel round for blind and visually impaired persons</b> For single side pushbutton; Double side pushbutton external	Plastic orange	RAL 2003	Braille + Close	<b>56-1392</b>	0.018
			Braille + Open	<b>56-1391</b>	0.018
	Plastic yellow	RAL 1023	Braille + Open	<b>56-1291</b>	0.018
			Braille + Close	<b>56-1492</b>	0.018
			Braille + Open	<b>56-1491</b>	0.018



Special colours for front bezel on request

## Front bezel triangular for blind and visually impaired persons

Cable entry right

	Front bezel	Colour	Marking	□ 106 x 101 mm Typ-Nr.	
<b>Front bezel triangular for blind and visually impaired persons</b> For single side pushbutton	Plastic yellow	RAL 1023	Braille + SOS	<b>56-8000</b>	0.029



Special colours for front bezel on request

SOS character height 15 mm, black printed according TSI/PRM and braille SOS as per DIN 32976

## Assembling

### Cable cover standard

	Typ-Nr.	Mounting dimensions	Technical drawing	
<b>Cable cover standard</b> 0°, included in standard delivery	<b>56-992</b>	7	1	0.003
45°, specify typ-no. in purchase order	<b>56-992A</b>	8	1	0.005




Mounting dimensions from page 37, Technical drawing from page 42

### Cable cover funnel

Caution:

Funnel shaped cable cover no. 992 B, C, D, E, F are not replacable after first mounting


	Typ-Nr.	Mounting dimensions	Technical drawing	
<b>Cable cover funnel</b> 0°	<b>56-992B</b>	5	2	0.010
10°	<b>56-992C</b>	6	2	0.010
15°	<b>56-992D</b>	6	2	0.010
25°	<b>56-992E</b>	6	2	0.010
9°	<b>56-992F</b>	6	2	0.010



Specify Typ-Nr. in purchase order


Mounting dimensions from page 37, Technical drawing from page 42

### Bezel cover

	Typ-Nr.	
<b>Bezel cover</b> 40 x 26 x 0,8 mm, adhesive, aluminium natural	<b>56-993</b>	0.005




## Mounting set for rear mounting

	Typ-Nr.	
<b>Mounting set for rear mounting</b> For front panel thickness 2mm and 3mm	<b>56-991</b>	0.036



## Dismantling tool


For front bezel

	Typ-Nr.	
<b>Dismantling tool</b>	<b>56-998</b>	0.012




## Anti-slip mat

For dismounting of front bezel

	Mat	Typ-Nr.	
<b>Anti-slip mat</b>	100 x 100 x 3 mm white	<b>56-999</b>	0.033



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

	Typ-Nr.	
<b>Counterpart set for plug-in housing 2.8 x 0.8 mm</b> (set of 10 pieces)	<b>56-994</b>	0.012



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

	Typ-Nr.	
<b>Counterpart set for plug-in housing 6.3 x 0.8 mm</b> (set of 10 pieces)	<b>56-995</b>	0.012



## Switch

### 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 ≥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

6 N ... 12 N

#### 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  
Illuminating can vary, for production-technical reasons of the LED manufacturers, easily

#### EMC approved, as per

EN 50081-1  
EN 50082-1; EN 50082-2  
EN 50121-3-2

#### 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 °C ... +80 °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

#### 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

#### Declaration of conformity

CE

## 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**  
0.25 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  
Illuminating can vary, for production-technical reasons of the LED manufacturers, easily

**Approved as per**  
IEC/EN 61000-4-6; 61000-4-3; 61000-4-4; 61000-4-2; 61000-4-5  
CISPR 22  
EN 55022

### Environmental conditions

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

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

**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

**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

### Mechanical characteristics

**Terminals**  
200 mm with crimped metal sleeves  
3-tone sequences module: 4 x 0,5 mm<sup>2</sup> or 4 x 0,25 mm<sup>2</sup> 5-tone sequences module: 6 x 0,5 mm<sup>2</sup>

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

**Standards**  
The devices comply with EN 50155

**EMC approved, as per**  
EN 50121-3-2 and EN 61000-4-4

**Operating voltage/-current**  
Operation voltage 24, 110 VDC  
Tolerance ±30 %  
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

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

### 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.

### 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.

## Frequency range

500 Hz ... 3000 Hz  $\pm 1$  %

## Time range of tone sequence

0 ...  $\infty$  (endless)

## Acoustic pressure level

90 dB  $\pm 8$  dB @ 0.1 m @ 1 kHz  
Level 17 for 3-tone sequences module  
Level 5 for 5-tone sequences module

## One tone sequence consists of

Two frequences at any duration and any repeat steps  
Multi-tone programmable according to TSI/PRM

## Environmental conditions

### Storage temperature

-45 °C ... +90 °C

### Operating temperature

-40 °C ... +85 °C

### Protection degree

3-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/s<sup>2</sup>, pulse width 30 ms, as per EN 61373

### Vibration resistance

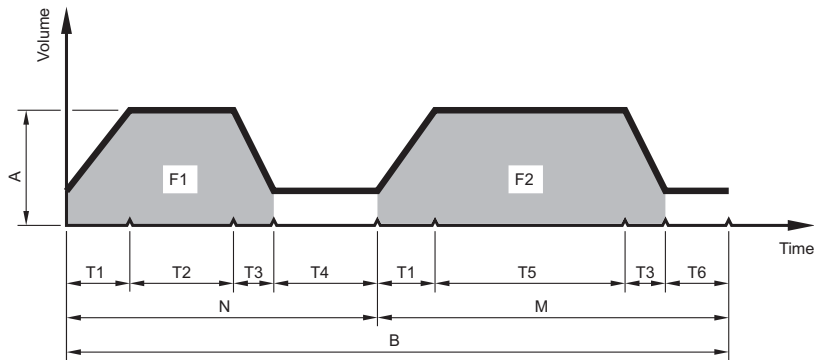
Max. 7.9 m/s<sup>2</sup> at 10 Hz ... 150 Hz, as per EN 61373

## Approvals

### Declaration of conformity

CE  
e1  
E1  
TSI/PRM

## Multi-Tone Sound Module, standard tone sequence



- 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 ( $\pm 8$  dB) @ 10 cm @ 1 kHz
- 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	$\infty$	$\infty$	$\infty$	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	3 / 78 dB	5 / 90 dB	3 / 78 dB	3 / 78 dB
	B	$\infty$	$\infty$	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

## 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	∞	∞	∞
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	17 / 90 dB	9 / 78 dB
	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	4 / 84 dB	5 / 90 dB	5 / 90 dB	4 / 84 dB
	B	∞	∞	∞	∞	∞
	T1	0 ms	0 ms	0 ms	0 ms	0 ms
	T3	200 ms	0 ms	500 ms	0 ms	0 ms

## Suppressor circuits

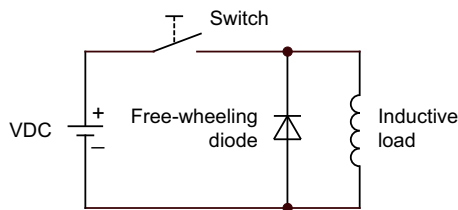
When switching inductive loads such as relays, DC motors, and DC solenoids, it is always important to absorb surges (e.g. with a diode) to protect the contacts. When these inductive loads are switched off, a counter emf can severely damage switch contacts and greatly shorten lifetime.

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.

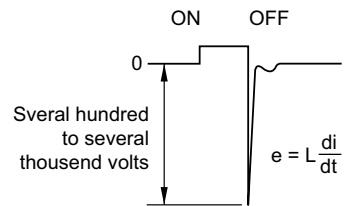
The free-wheeling diode should be chosen so that the reverse breakdown voltage is greater than the voltage driving the inductive load. The DC blocking voltage (VR) of the free-wheeling diode can be found in the datasheet of a diode. The forward current should be equal or greater than the maximum current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

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

Switching with inductive load  
Fig. 1



Counter emf  
over load without free-wheeling diode  
Fig. 2

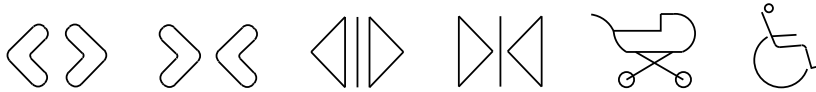


## Marking of lens

Symbol colour : black

Marking	Symbol no.
Baby carriage	60523
Wheelchair	40089
Door open	00.835
Door open	00.868
Door close	00.869
Door close	00.836

00.868      00.869      00.835      00.836      60523      40089



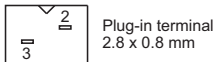
Specified symbols and text on 1...3 lines on request

Note:

For marking, please indicate the cable entry is left or right (left or right as seen from outside).  
Symbol-No. 00.868 and 00.869 are also available in raised, tangibel version.

## Component layout

**1 Single side indicator** page 7 | **Single side indicator raised conical** page 8 | **Single side indicator** page 15 | **Single side indicator raised conical** page 16



Standard type

**2 Single side pushbutton** page 9 | **Single side pushbutton** page 17 | **Single side pushbutton** page 21 | **Double side pushbutton** page 23



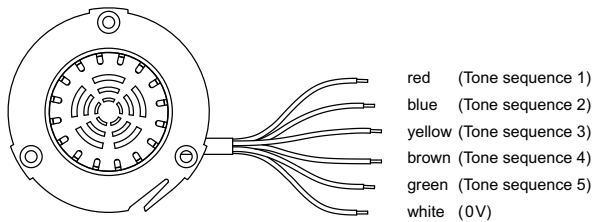
Standard type

**3 Single side pushbutton** page 9 | **Single side pushbutton** page 17 | **Single side pushbutton** page 21 | **Double side pushbutton** page 23

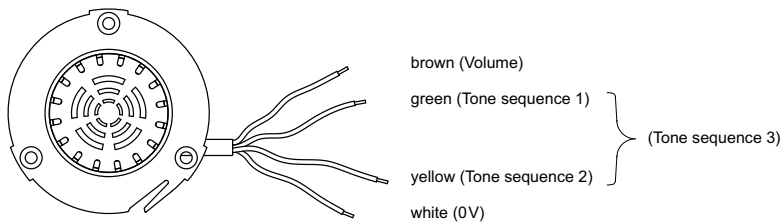


Standard type

**4 Multi-Tone Sound Module 5-tone sequences with front bezel** page 11 | **Multi-Tone Sound Module 5-ton sequences** page 13 | **Multi-Tone Sound Module 5-ton sequences** page 19

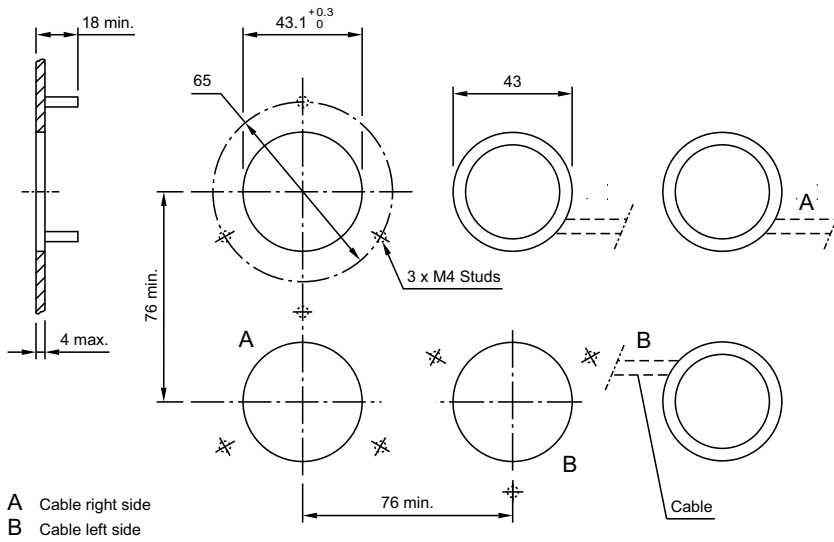


**5 Multi-Tone Sound Module 3-tone sequences** page 14 | **Multi-Tone Sound Module 3-tone sequences** page 20 | **Multi-Tone Sound Module 3-tone sequences** page 25

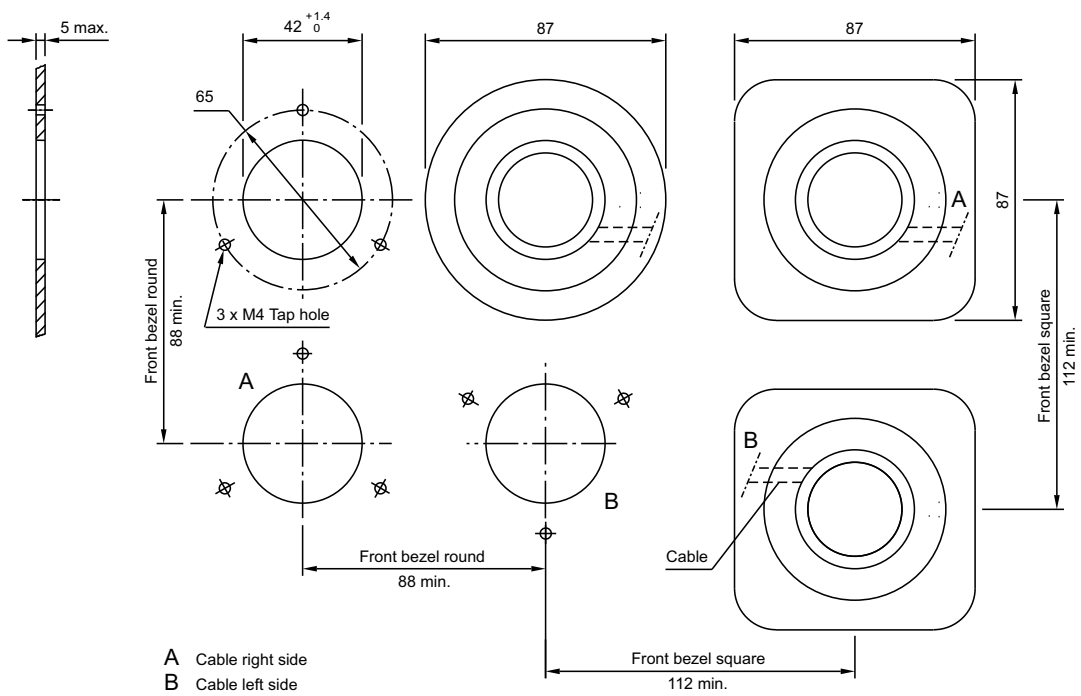


## Mounting dimensions

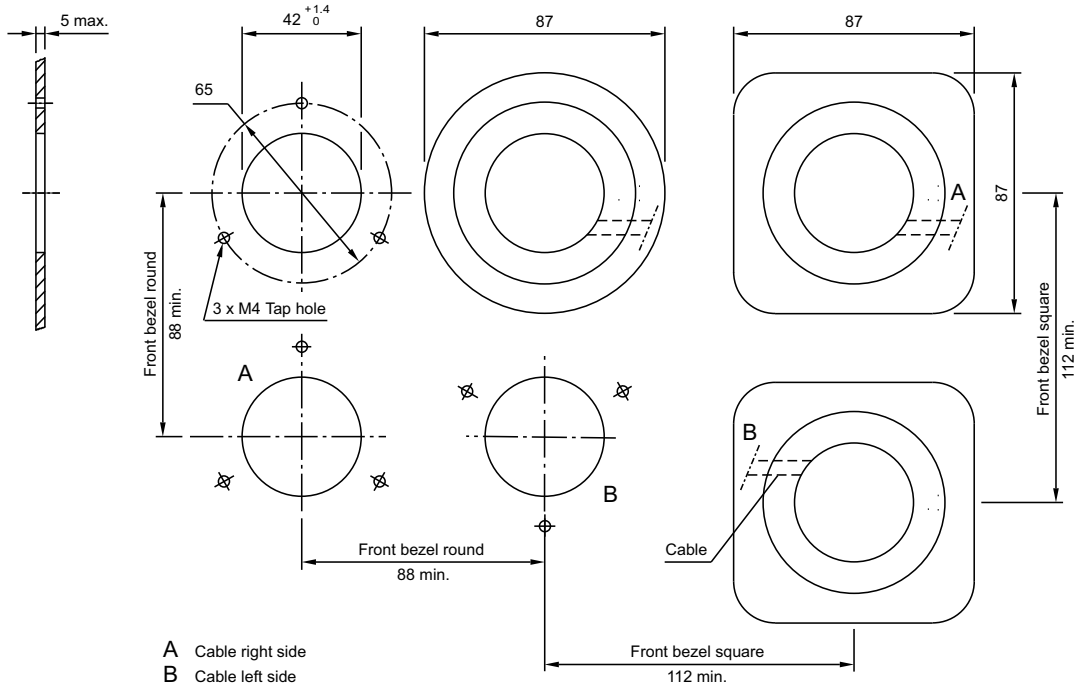
### 1 Single side pushbutton page 17



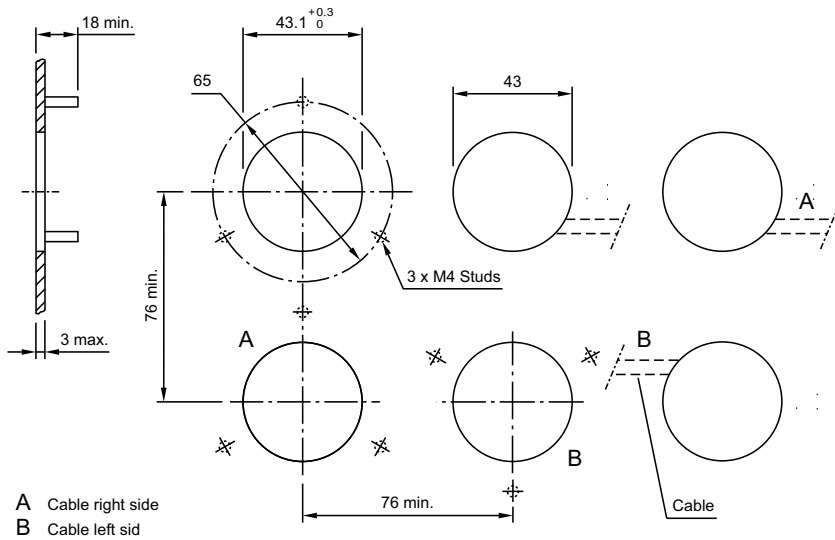
### 2 Single side pushbutton page 9



3 Single side indicator page 7 | Single side indicator raised conical page 8 | Multi-Tone Sound Module 5-tone sequences with front bezel page 11 | Multi-Tone Sound Module 5-ton sequences page 13 | Multi-Tone Sound Module 3-tone sequences page 14

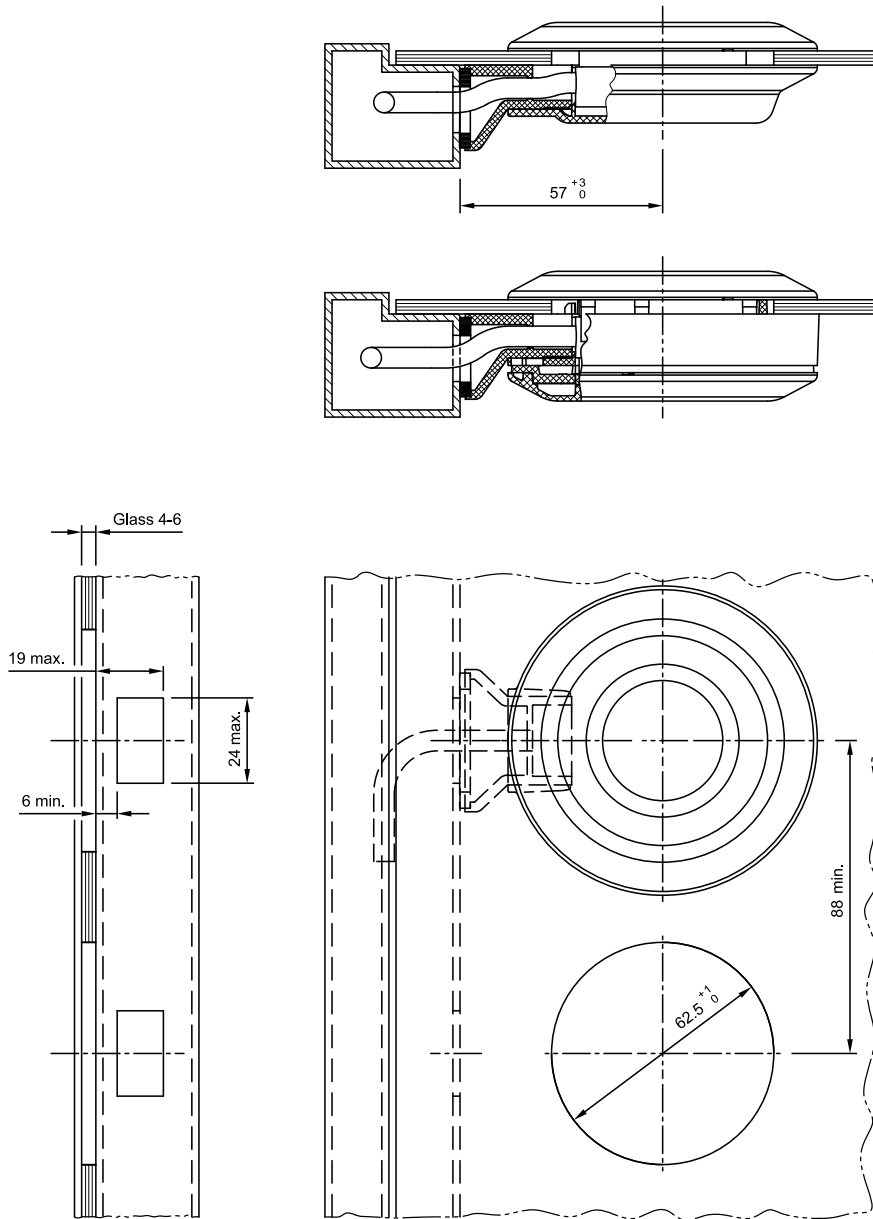


4 Single side indicator page 15 | Single side indicator raised conical page 16 | Multi-Tone Sound Module 5-tone sequences page 19 | Multi-Tone Sound Module 3-tone sequences page 20

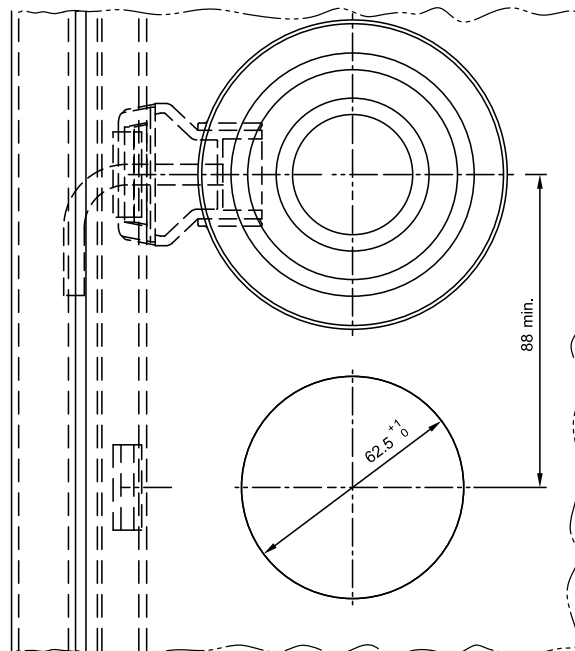
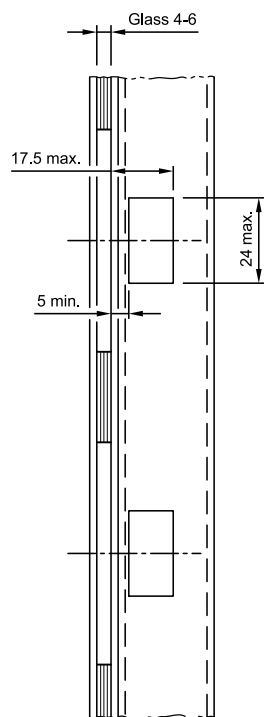
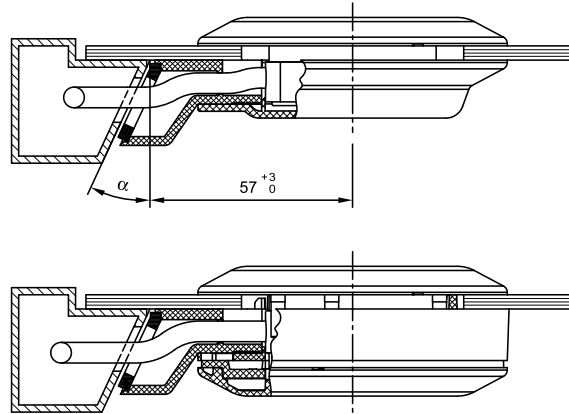




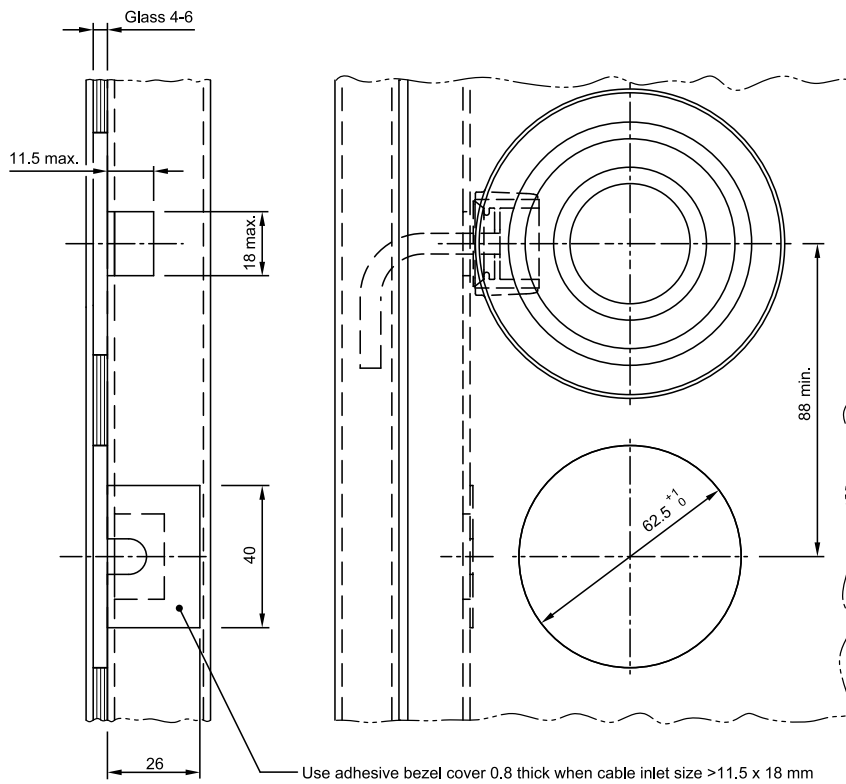
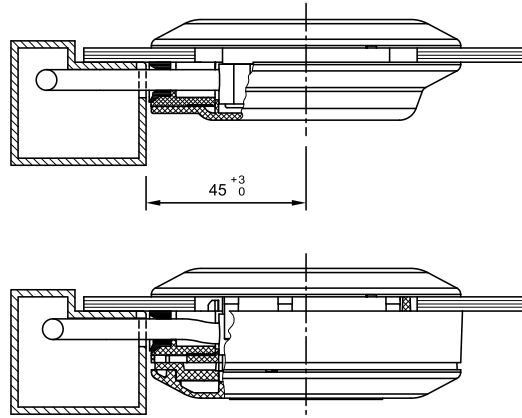
## 5 Cable cover funnel page 27



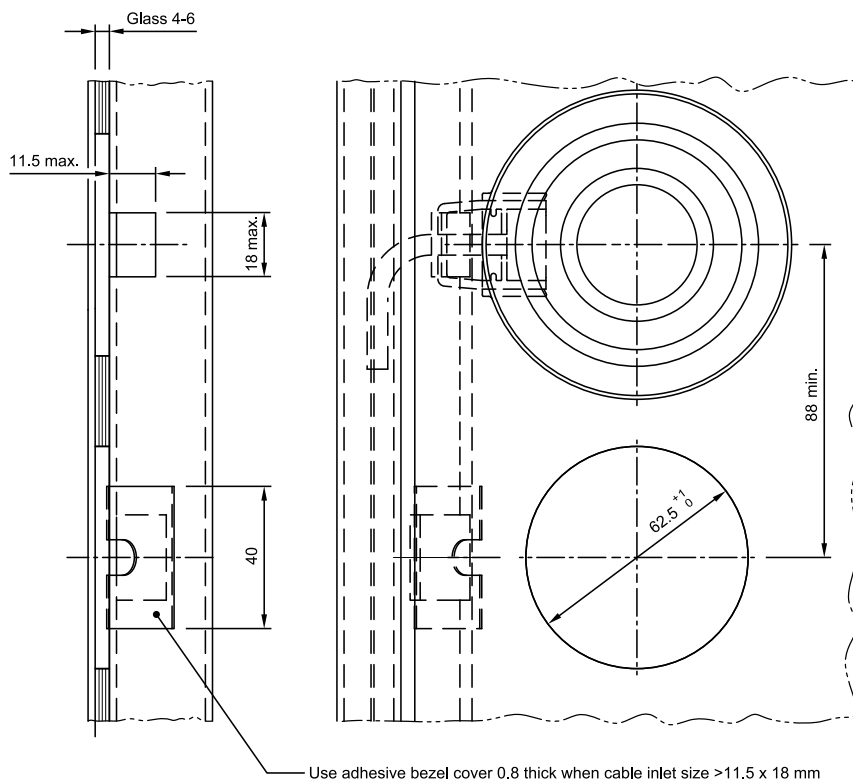
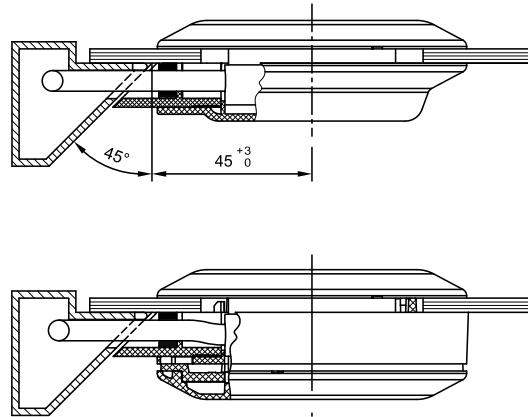
## 6 Cable cover funnel page 27



7 Single side pushbutton page 21 | Double side pushbutton page 23 | Multi-Tone Sound Module 3-tone sequences page 25 | Cable cover standard page 27



## 8 Cable cover standard page 27



### Technical drawing

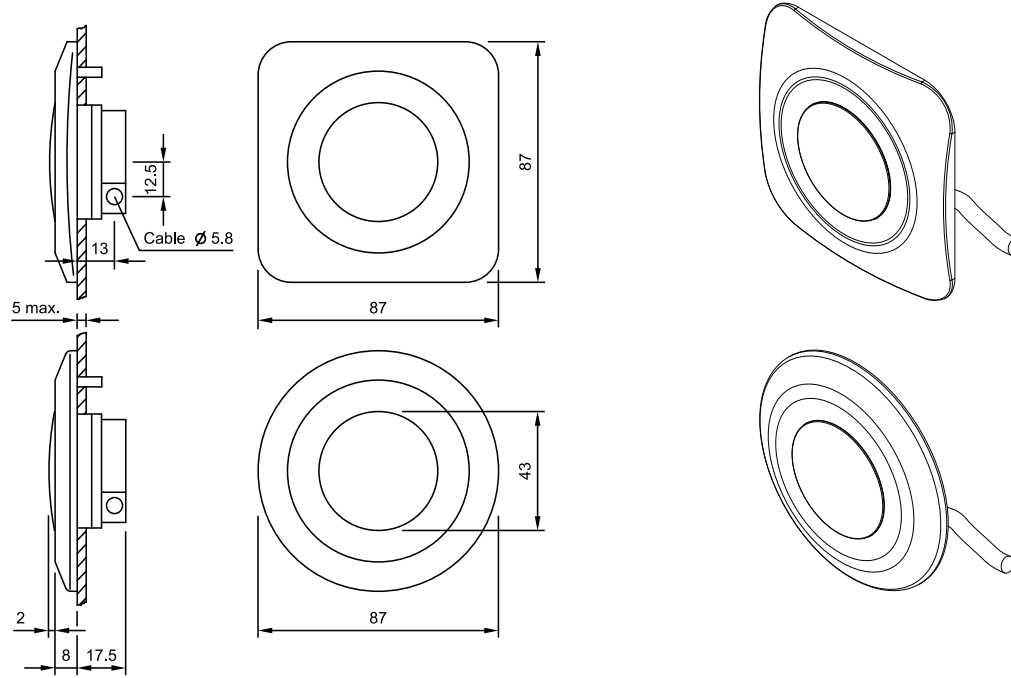
#### 1 Cable cover standard page 27

0°                      45°

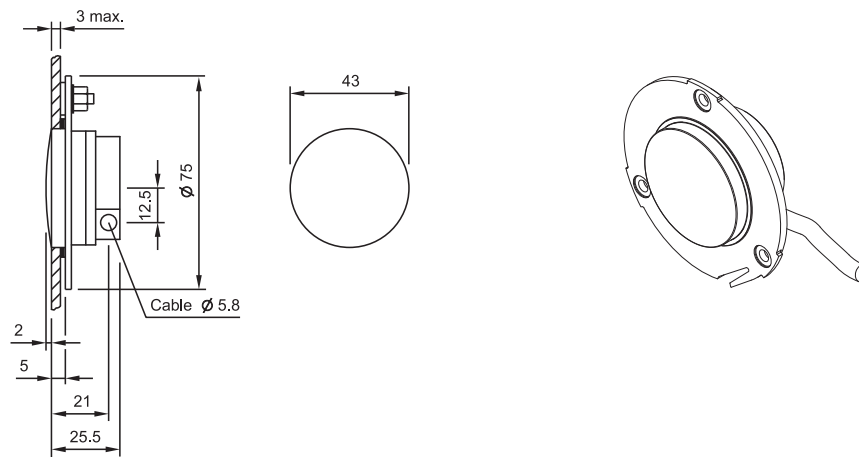




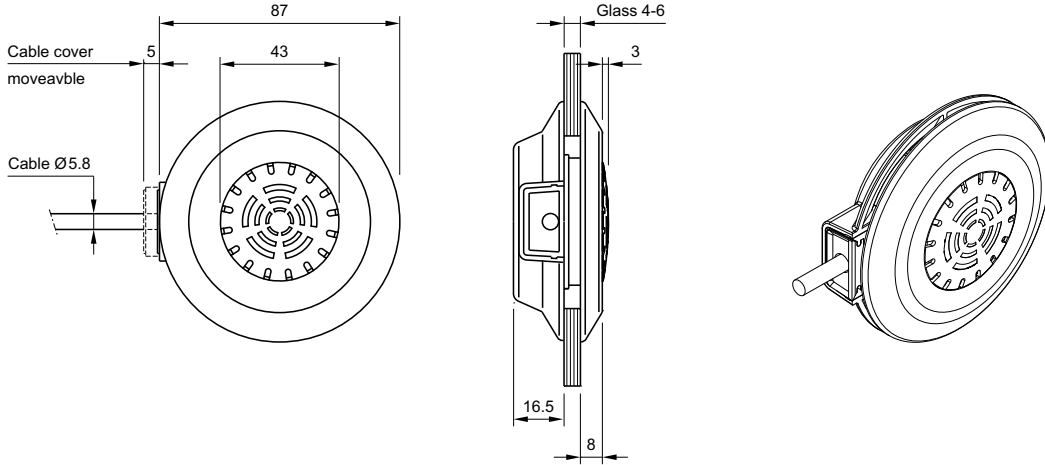
## 5 Single side indicator page 7



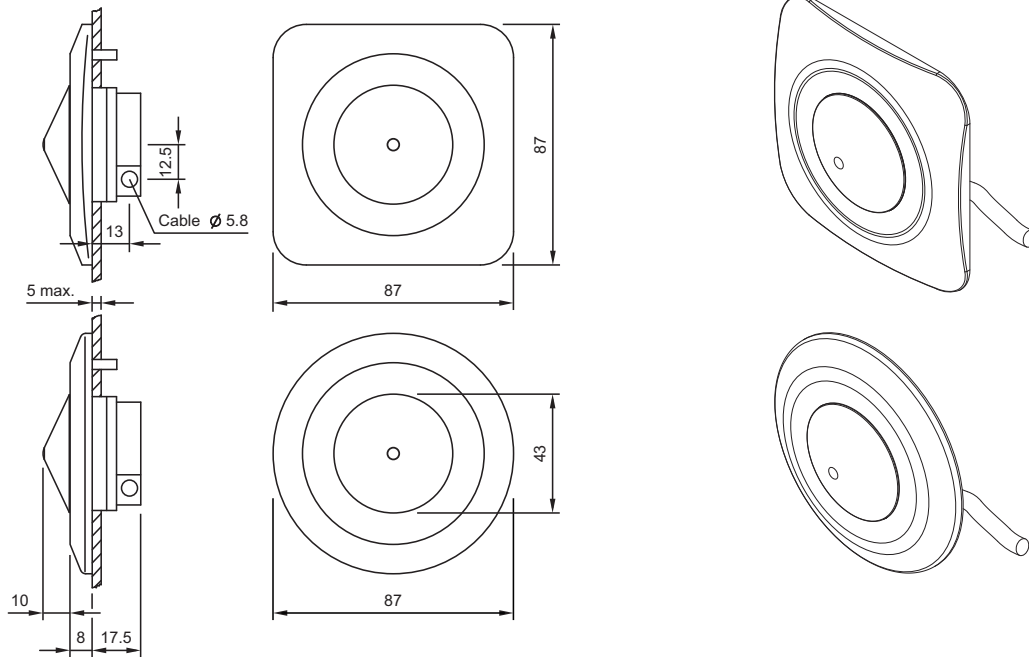
## 6 Single side indicator page 15



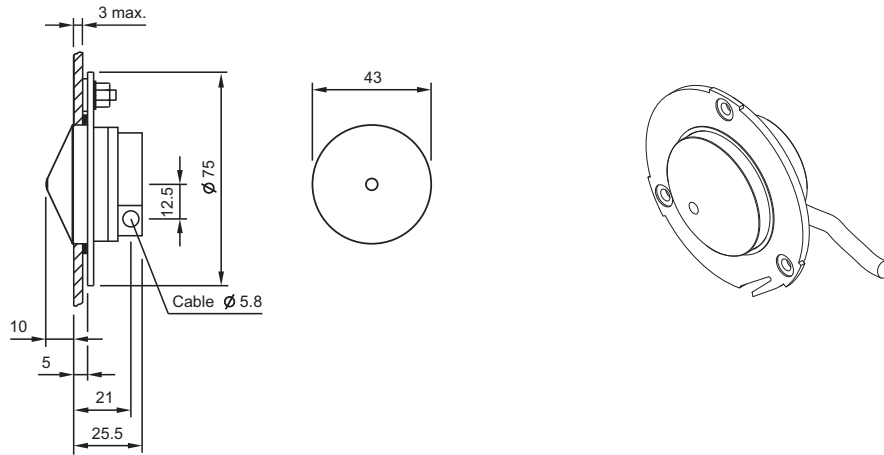
## 7 Multi-Tone Sound Module 3-tone sequences page 25



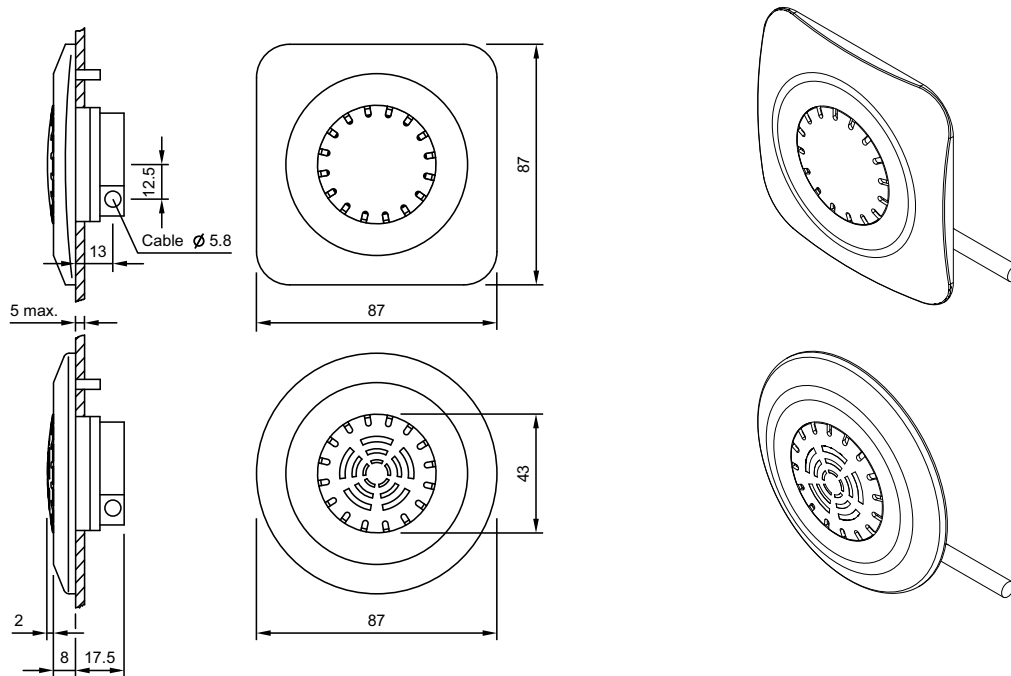
## 8 Single side indicator raised conical page 8



**9 Single side indicator raised conical page 16**

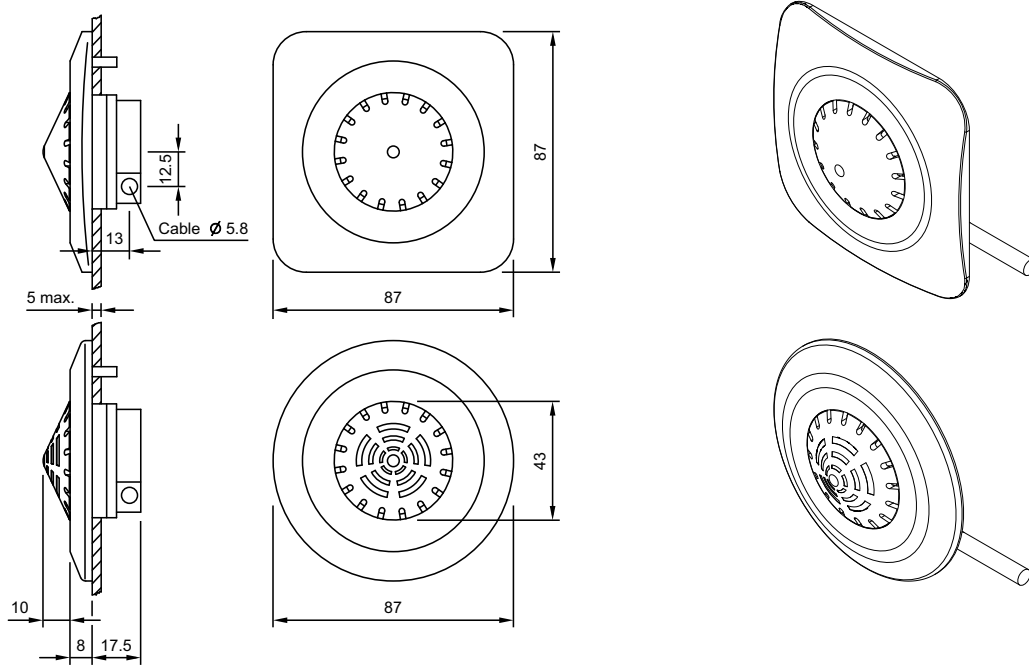


**10 Multi-Tone Sound Module 5-tone sequences with front bezel page 11 | Multi-Tone Sound Module 5-ton sequences page 13 | Multi-Tone Sound Module 3-tone sequences page 14**

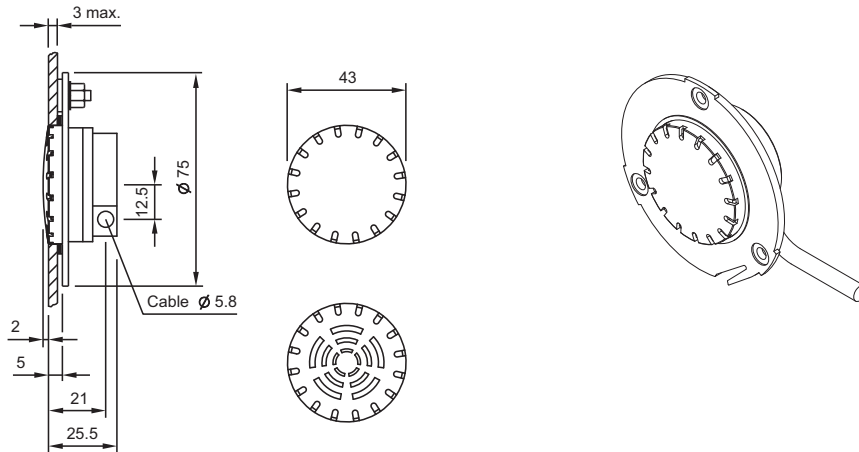




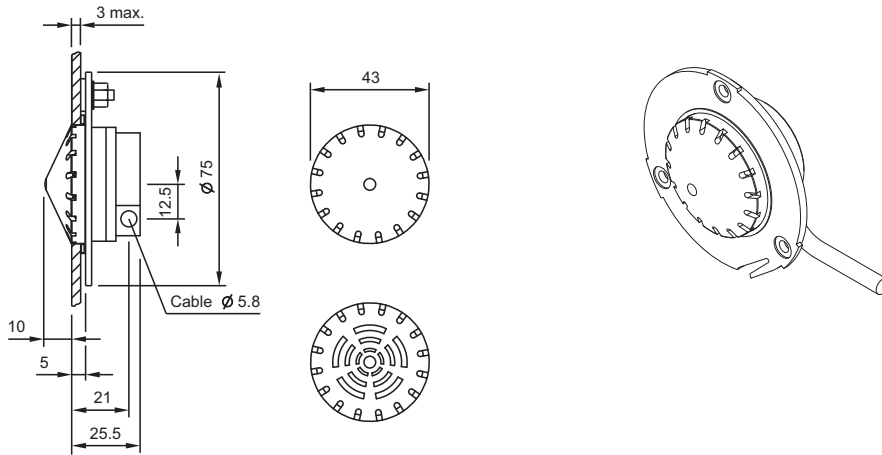
11 Multi-Tone Sound Module 5-tone sequences with front bezel page 11 | Multi-Tone Sound Module 5-ton sequences page 13



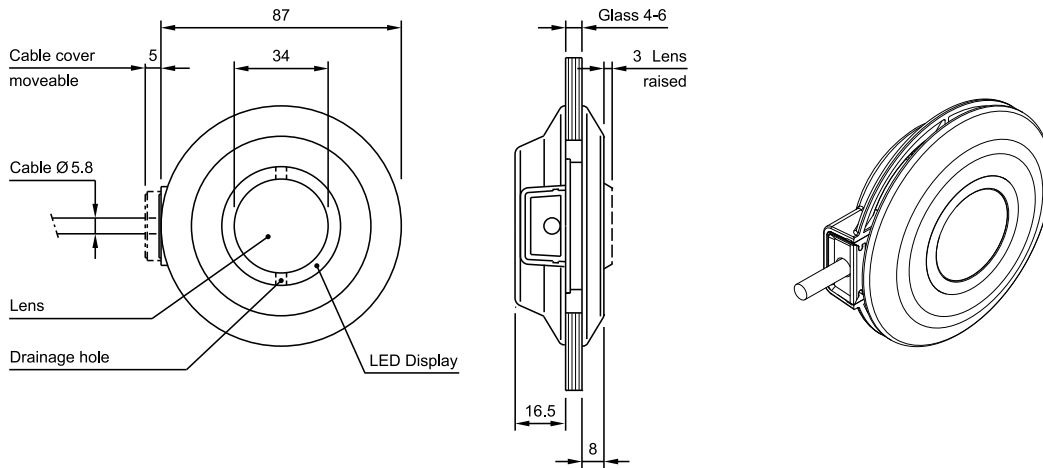
12 Multi-Tone Sound Module 5-ton sequences page 19 | Multi-Tone Sound Module 3-tone sequences page 20



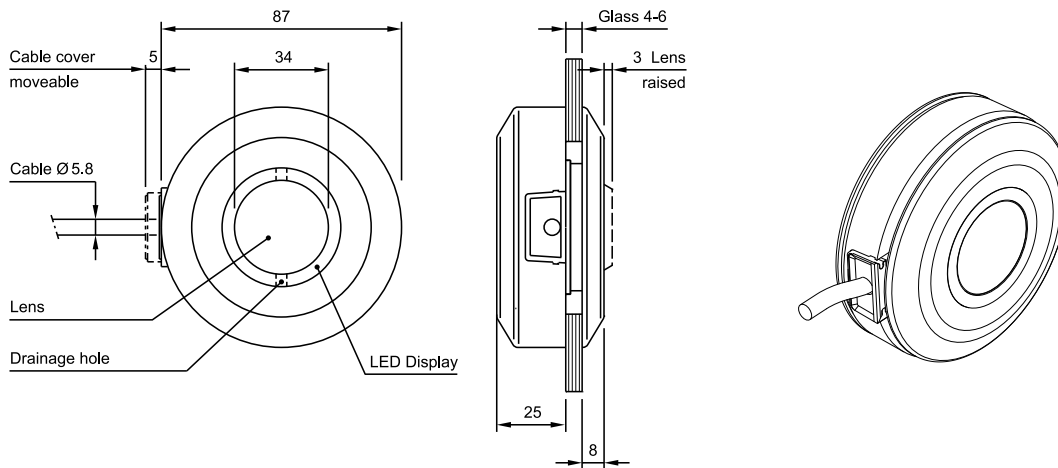
### 13 Multi-Tone Sound Module 5-ton sequences page 19



### 14 Single side pushbutton page 21

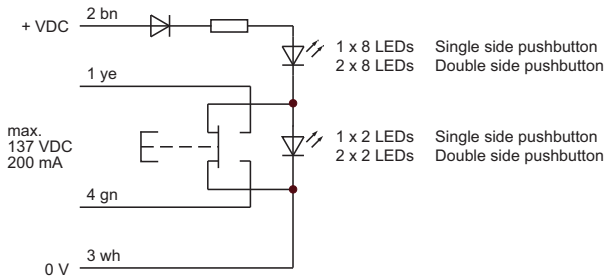


### 15 Double side pushbutton page 23

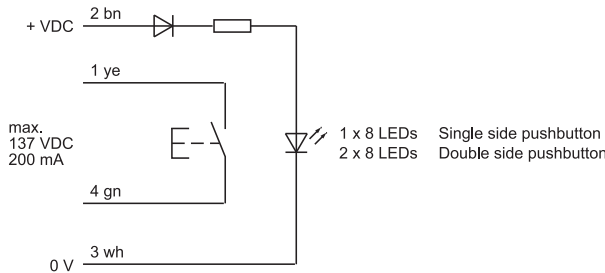


## Circuit drawing

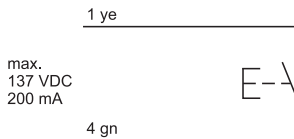
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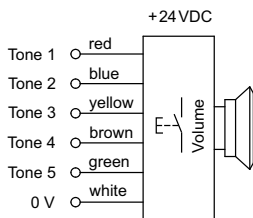
2 Single side pushbutton page 9 | Single side pushbutton page 17 | Single side pushbutton page 21 | Double side pushbutton page 23



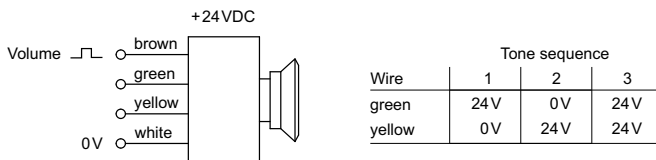
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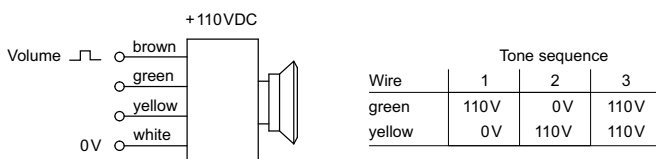
4 Multi-Tone Sound Module 5-tone sequences with front bezel page 11 | Multi-Tone Sound Module 5-ton sequences page 13 | Multi-Tone Sound Module 5-ton sequences page 19



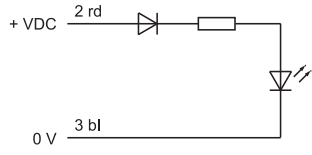
5 Multi-Tone Sound Module 3-tone sequences page 14 | Multi-Tone Sound Module 3-tone sequences page 20 | Multi-Tone Sound Module 3-tone sequences page 25



6 Multi-Tone Sound Module 3-tone sequences page 14 | Multi-Tone Sound Module 3-tone sequences page 20 | Multi-Tone Sound Module 3-tone sequences page 25



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56-3213.92	7	56-61000-00.8	19	56-6213.90	15
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56-4213.1400G	22	56-61001-00.16	12	56-6913.70	8
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