

1SFC151001C0201, Edition 2, January 2006
Supersedes Catalogue 1SFC15100C0201 of December 2004



ABB – A sure hit in Pilot Devices



Part of comprehensive ABB program

The ABB Pilot Devices are part of the comprehensive ABB program of high quality Low Voltage Products and Systems for buildings, industries and OEM's. Much of this is sold through external channel partners such as distributors, system integrators and panel builders. Our products meet all essential national

and international standards such as IEC, EN, UL, CSA, CCC etc.

ABB offers a modern range of Control products such as contactors, soft starters, DOL & Y/D starters and a wider range of electronic relays, switches and sensors.



Pilot Devices

ABB offers a complete range of 22 mm pushbuttons, emergency stops, selector switches and signalling units. These are complemented with enclosures and a wide range of accessories.

The main advantage is the robustness and the fast and easy installation ensuring cost efficiency for our customers. The ABB Pilot Devices are suitable for all types of industrial environments, indoor as well as outdoor. Other sectors of common usage include trucks, buses, trains and official buildings.

Complete range

The ABB Pilot Device family is divided into two ranges; the **Modular** range includes operators, holders, contact blocks and accessories that can be combined with high flexibility. The **Compact** range has all functions built-in in one single unit.

Modular pilot devices

The Modular range is extensive and well known all around the world for its flexibility and robustness. By combining a few basic components a large number of different devices can be acquired.

The Modular range includes pushbuttons, mushroom buttons, selector switches and emergency stops. Non-illuminated or illuminated. Further on we offer pilot lights with filament bulbs or LEDs. Buzzers, potentiometers, toggle switches, reset buttons and special definite purpose buttons (30 mm) complete the range.

The main benefits are:

- Made for tough environments
- Large text and push area
- Up to six contact blocks on one actuator
- Easy to mount and to wire

Compact pilot devices

The exciting new family of Compact pilot devices is establishing new standards of performance. No matter what your application, the new range will improve your product and streamline your cost.

The all-in-one design makes everything easier; the entire functionality is condensed into one unit. You never need to match items together and each item has a single ordering number.

The Compact range includes pushbuttons, selector switches, emergency stops and pilot lights. These work in perfect harmony with the extensive Modular range since the front design is identical.

The main benefits are:

- Robust design
- Fast mounting
- Built in LED as an option
- Reduced stock keeping
- Low built-in depth

22 mm or 30 mm Both ranges for 22 mm can be used in 30 mm mounting holes (1.5 - 4 mm panels) by combining the pilot device with a 30 mm adaptor.



Emergency stop devices

In the Modular range the Emergency stop pushbuttons from ABB were in the front line to pass the tough tests required to fulfil the standard IEC 60 947-5-5.

The product standard for electrical emergency stop devices with mechanical latching function, IEC 60 947-5-5, verifies the demands from Machine Directive and its reference standard EN 60204 (Safety of machinery).

Now we also can offer Emergency stop devices in our Compact range.



Signal Towers and Signal Beacons

A wide range of signal devices with optical and audible signal elements.

For Signal Towers up to five elements can be used. With bracket for 2-sided mounting up to ten elements can be mounted.

Assembled stations and enclosures

There are assembled stations of two types: In plastic enclosures and in metallic enclosures. Both types of enclosures are available in 1-, 2-, 3-, 4- or 6-seat.



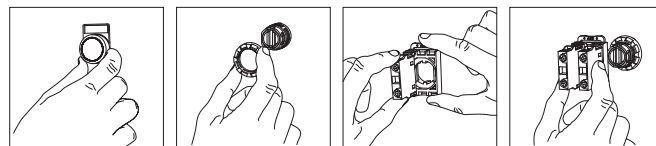
Accessories

There is a wide assortment of accessories including legend plates, bulbs/LEDs, special blocks, different shrouds and adaptors.



Fast and easy to install

All pilot devices are easy to install. Spring-loaded tabs ensure that actuators and legend plates are in correct position. Same actuator can be used in both notched and round holes.



Aesthetic – Functional – Flexible

- The pilot devices have an aesthetic and functional design - Tight, withstanding even the toughest environment. No additional protective boot is needed.
- Large text and push area, clear and visible markings for quick and easy handling.
- Different choices of bezels - black plastic or metal. Grey plastic as accessory.
- Contacts are provided with wiping action. The tips of the contacts rub against each other each time the contacts close, thus forcing dust and oxide to the side. The NC block has positive opening for high performance in safety circuits.

Worldwide availability

ABB is represented in over 130 countries. Our pilot devices meets all major international and national standards.





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Ordering details

When ordering please give either the **"Type"** or the **"Order Code"**

Where not other is stated Type and Order Code refer to **one piece**.

The products described in this catalogue can be subject to change (design, dimensions, technical data, etc.) without prior notice.



The compact range is a new competitive choice for customers with high requirements of cost efficient, easy to use and reliable products.

General construction

- "All-in-one function"
- One order code = one complete function
- Easy mounting
- Less stock keeping
- Broad range of accessories
- Same front design as for the modular range.
- Robust actuators in clear colors with large text and push area

Technical advantages

- High degree of protection: IP 66
- One or two built-in electrically separated contacts (1NO, 1NC, 2NO, 2NC or 1NC & 1NO)
- Contacts with wiping action
- Low built-in depth

Operators

- Pushbuttons, non-illuminated
- Emergency stop pushbuttons, non-illuminated, twist, pull or key release
- Selector switches, non-illuminated, 2 or 3 position

Pilot lights

- Ba 9s base for bulbs (6-130 V) or LED (12-130 V DC, 24-230 V AC)
- Pilot light with integrated LED (12-220 V DC, 24-230 V AC)



Pilot devices - Compact range

Flush and extended pushbuttons, non-illuminated



Bezel in black plastic as standard
Bezel in metal:
 Replace '1' in the:
 Type CPX-1 0X
 Order Code 1SFA619XXX R 1XXX
 3 for metal bezel

Codes for button colors

	Type	Order Code
Red	R	1
Green	G	2
Yellow	Y	3
Blue	L	4
White	W	5
Black	B	6
Grey	U	7

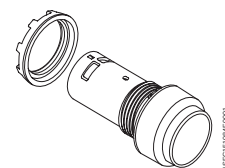
Pushbutton with ...

Description	Type	Order Code	Packing qty	Weight, kg
Flush button				
Momentary				
<u>Contacts included:</u>				
1 NO	CP1-10■-10	1SFA 619 100 R101□	10	0.018
2 NO	CP1-10■-20	1SFA 619 100 R102□	10	0.022
1 NC	CP1-10■-01	1SFA 619 100 R104□	10	0.018
2 NC	CP1-10■-02	1SFA 619 100 R105□	10	0.022
1 NO +1 NC	CP1-10■-11	1SFA 619 100 R107□	10	0.022
Maintained				
<u>Contacts included:</u>				
1 NO	CP2-10■-10	1SFA 619 101 R101□	10	0.018
2 NO	CP2-10■-20	1SFA 619 101 R102□	10	0.022
1 NC	CP2-10■-01	1SFA 619 101 R104□	10	0.018
2 NC	CP2-10■-02	1SFA 619 101 R105□	10	0.022
1 NO +1 NC	CP2-10■-11	1SFA 619 101 R107□	10	0.022
Extended button				
Momentary				
<u>Contacts included:</u>				
1 NO	CP3-10■-10	1SFA 619 102 R101□	10	0.019
2 NO	CP3-10■-20	1SFA 619 102 R102□	10	0.022
1 NC	CP3-10■-01	1SFA 619 102 R104□	10	0.019
2 NC	CP3-10■-02	1SFA 619 102 R105□	10	0.022
1 NO +1 NC	CP3-10■-11	1SFA 619 102 R107□	10	0.022
Maintained				
<u>Contacts included:</u>				
1 NO	CP4-10■-10	1SFA 619 103 R101□	10	0.019
2 NO	CP4-10■-20	1SFA 619 103 R102□	10	0.022
1 NC	CP4-10■-01	1SFA 619 103 R104□	10	0.019
2 NC	CP4-10■-02	1SFA 619 103 R105□	10	0.022
1 NO +1 NC	CP4-10■-11	1SFA 619 103 R107□	10	0.022
Flush button				
Momentary				
White button with black I				
<u>Contacts included:</u>				
1 NO	CP11-10W-10	1SFA 619 110 R1015	10	0.018
Momentary				
White button with black II				
<u>Contacts included:</u>				
1 NO	CP12-10W-10	1SFA 619 120 R1015	10	0.018
Extended button				
Momentary				
Black button with white O				
<u>Contacts included:</u>				
1NC	CP33-10B-01	1SFA 619 132 R1046	10	0.018

Ordering example – Compact pushbutton

Requested: A compact pushbutton, momentary,
 with red extended button and one NO contact.
 Order: 10 pieces of CP3-10R-10

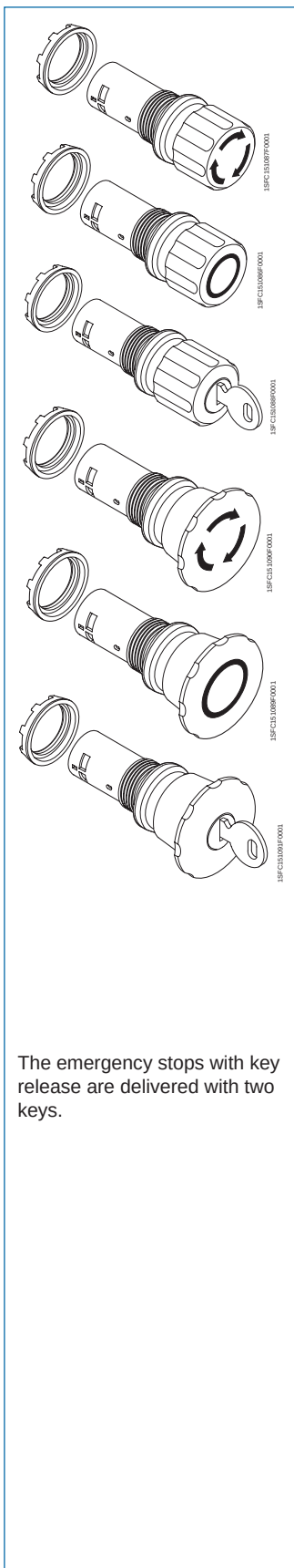
Minimum order quantity: 10 pieces
Packing: 10 pieces/plastic bag. 10 bags/box



Pilot devices - Compact range

Emergency stop pushbutton, non-illuminated

Fulfills IEC 60947-5-5



Operator of plastic

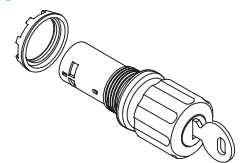
Description	Type	Order Code	Packing qty	Weight, kg
Ø 30 mm				
Twist release Red				
<u>Contacts included:</u>				
1 NC	CE3T-10R-01	1SFA 619 500 R1041	10	0.032
2 NO	CE3T-10R-20	1SFA 619 500 R1021	10	0.032
2 NC	CE3T-10R-02	1SFA 619 500 R1051	10	0.032
1 NO +1 NC	CE3T-10R-11	1SFA 619 500 R1071	10	0.032
Pull release Red				
<u>Contacts included:</u>				
2 NC	CE3P-10R-02	1SFA 619 501 R1051	10	0.032
1 NO +1 NC	CE3P-10R-11	1SFA 619 501 R1071	10	0.032
Key release Red (Key code 71, Ronis 455)				
<u>Contacts included:</u>				
2 NC	CE3K1-10R-02	1SFA 619 502 R1051	10	0.060
1 NO +1 NC	CE3K1-10R-11	1SFA 619 502 R1071	10	0.060
Ø 40 mm				
Twist release Red				
<u>Contacts included:</u>				
1 NC	CE4T-10R-01	1SFA 619 550 R1041	10	0.036
2 NO	CE4T-10R-20	1SFA 619 550 R1021	10	0.036
2 NC	CE4T-10R-02	1SFA 619 550 R1051	10	0.036
1 NO +1 NC	CE4T-10R-11	1SFA 619 550 R1071	10	0.036
Pull release Red				
<u>Contacts included:</u>				
2 NC	CE4P-10R-02	1SFA 619 551 R1051	10	0.036
1 NO +1 NC	CE4P-10R-11	1SFA 619 551 R1071	10	0.036
Key release Red (Key code 71, Ronis 455)				
<u>Contacts included:</u>				
2 NC	CE4K1-10R-02	1SFA 619 552 R1051	10	0.064
1 NO +1 NC	CE4K1-10R-11	1SFA 619 552 R1071	10	0.064

Ordering example – Compact Emergency stop pushbutton

Requested: A compact emergency stop pushbutton, 30 mm, with key release and two NC contacts.

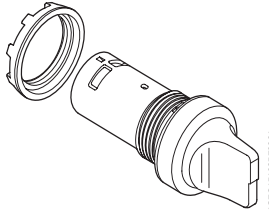
Order: 10 pieces of CE3K1-10R-02.

Minimum order quantity: 10 pieces
Packing: 1 piece/plastic bag.



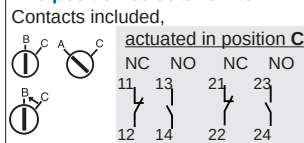
Pilot devices - Compact range

Two and three position selector switches, non-illuminated

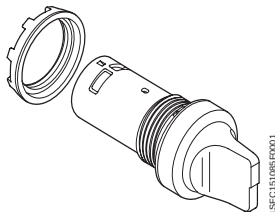


Contacts actuated

Two position selector switch



1NO	—	1	—	—
2NO	—	1	—	1
1NC	1	—	—	—
2NC	1	—	1	—
1NO + 1NC	—	1	1	—



Bezel in black plastic as standard

Bezel in metal:

Replace '1' in the:

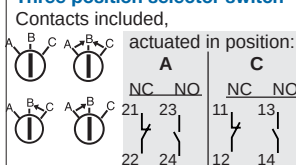
Type CPX-1 0X

Order Code 1SFA619XXX R 1XXX

3 for metal bezel

Contacts actuated

Three position selector switch



2NO	—	1	—	1
2NC	1	—	1	—
1NO + 1NC	1	—	—	1

Codes for handle colors

Type	Order Code
■	□
Red R	1
Black B	6
Grey U	7

Selector switch with ...

Description	Type	Order Code	Packing qty	Weight, kg
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Short handle. Two positions

Maintained

Contacts included:



1 NO	C2SS1-10■-10	1SFA 619 200 R101□	10	0.020
2 NO	C2SS1-10■-20	1SFA 619 200 R102□	10	0.024
1 NC	C2SS1-10■-01	1SFA 619 200 R104□	10	0.020
2 NC	C2SS1-10■-02	1SFA 619 200 R105□	10	0.024
1 NO + 1 NC	C2SS1-10■-11	1SFA 619 200 R107□	10	0.024

Maintained

Contacts included:



1 NO	C2SS2-10■-10	1SFA 619 201 R101□	10	0.020
2 NO	C2SS2-10■-20	1SFA 619 201 R102□	10	0.024
1 NC	C2SS2-10■-01	1SFA 619 201 R104□	10	0.020
2 NC	C2SS2-10■-02	1SFA 619 201 R105□	10	0.024
1 NO + 1 NC	C2SS2-10■-11	1SFA 619 201 R107□	10	0.024

Momentary

Contacts included:



1 NO	C2SS3-10■-10	1SFA 619 202 R101□	10	0.020
2 NO	C2SS3-10■-20	1SFA 619 202 R102□	10	0.024
1 NC	C2SS3-10■-01	1SFA 619 202 R104□	10	0.020
2 NC	C2SS3-10■-02	1SFA 619 202 R105□	10	0.024
1 NO + 1 NC	C2SS3-10■-11	1SFA 619 202 R107□	10	0.024

Short handle. Three positions

Maintained

Contacts included:



2 NO	C3SS1-10■-20	1SFA 619 210 R102□	10	0.024
2 NC	C3SS1-10■-02	1SFA 619 210 R105□	10	0.024
1 NO + 1 NC	C3SS1-10■-11	1SFA 619 210 R107□	10	0.024

Momentary

Contacts included:



2 NO	C3SS2-10■-20	1SFA 619 211 R102□	10	0.024
2 NC	C3SS2-10■-02	1SFA 619 211 R105□	10	0.024
1 NO + 1 NC	C3SS2-10■-11	1SFA 619 211 R107□	10	0.024

Momentary

Contacts included:



2 NO	C3SS3-10■-20	1SFA 619 212 R102□	10	0.024
2 NC	C3SS3-10■-02	1SFA 619 212 R105□	10	0.024
1 NO + 1 NC	C3SS3-10■-11	1SFA 619 212 R107□	10	0.024

Momentary

Contacts included:



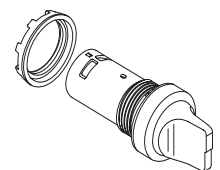
2 NO	C3SS7-10■-20	1SFA 619 216 R102□	10	0.024
2 NC	C3SS7-10■-02	1SFA 619 216 R105□	10	0.024
1 NO + 1 NC	C3SS7-10■-11	1SFA 619 216 R107□	10	0.024

Ordering example – Compact selector switch

Requested: A red compact selector switch with three positions, Momentary, spring return from A to B and maintained position in C. With 2 NC contacts.

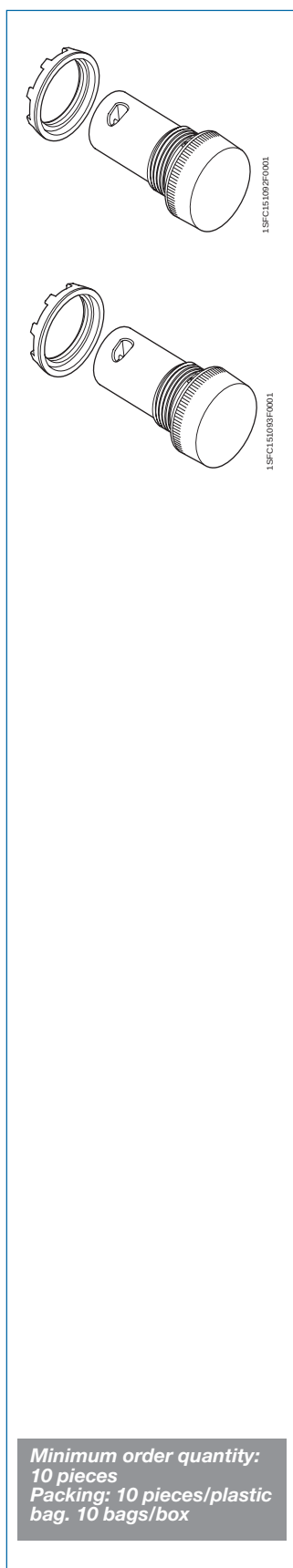
Order: 10 pieces of C3SS7-10R-02

Minimum order quantity: 10 pieces
Packing: 10 pieces/plastic bag. 10 bags/box



Pilot devices - Compact range

Pilot lights/Pilot lights with integrated LED



Pilot light Ba 9s base, bulb not included

Description	Type	Order Code	Packing qty	Weight, kg
Color:				
Red	CL-100R	1SFA 619 402 R1001	10	0.018
Green	CL-100G	1SFA 619 402 R1002	10	0.018
Yellow	CL-100Y	1SFA 619 402 R1003	10	0.018
Blue	CL-100L	1SFA 619 402 R1004	10	0.018
White	CL-100W	1SFA 619 402 R1005	10	0.018
Clear	CL-100C	1SFA 619 402 R1008	10	0.018

Pilot light with integrated LED Service life >50 000 hours

Color	Rated current mA	Luminance mcd	Wave-length nm	Type	Order Code	Packing qty	Weight, kg
Rated voltage 12 V, DC ¹⁾							
Red	30	60	625	CL-501R	1SFA 619 402 R5011	10	0.023
Green	15	126	520	CL-501G	1SFA 619 402 R5012	10	0.023
Yellow	30	60	590	CL-501Y	1SFA 619 402 R5013	10	0.023
Blue	30	22	470	CL-501L	1SFA 619 402 R5014	10	0.023
White	30	88	2)	CL-501W	1SFA 619 402 R5015	10	0.023
Rated voltage 24 V, AC/DC							
Red	15	60	625	CL-502R	1SFA 619 402 R5021	10	0.023
Green	15	126	520	CL-502G	1SFA 619 402 R5022	10	0.023
Yellow	15	60	590	CL-502Y	1SFA 619 402 R5023	10	0.023
Blue	15	22	470	CL-502L	1SFA 619 402 R5024	10	0.023
White	15	88	2)	CL-502W	1SFA 619 402 R5025	10	0.023
Rated voltage 48 V, AC/DC							
Red	15	60	625	CL-504R	1SFA 619 402 R5041	10	0.023
Green	15	126	520	CL-504G	1SFA 619 402 R5042	10	0.023
Yellow	15	60	590	CL-504Y	1SFA 619 402 R5043	10	0.023
Blue	15	22	470	CL-504L	1SFA 619 402 R5044	10	0.023
White	15	88	2)	CL-504W	1SFA 619 402 R5045	10	0.023
Rated voltage 60 V, AC/DC							
Red	15	60	625	CL-505R	1SFA 619 402 R5051	10	0.023
Green	15	126	520	CL-505G	1SFA 619 402 R5052	10	0.023
Yellow	15	60	590	CL-505Y	1SFA 619 402 R5053	10	0.023
Blue	15	22	470	CL-505L	1SFA 619 402 R5054	10	0.023
White	15	88	2)	CL-505W	1SFA 619 402 R5055	10	0.023
Rated voltage 110-130 V, AC							
Red	15	60	625	CL-513R	1SFA 619 402 R5131	10	0.023
Green	15	126	520	CL-513G	1SFA 619 402 R5132	10	0.023
Yellow	15	60	590	CL-513Y	1SFA 619 402 R5133	10	0.023
Blue	15	22	470	CL-513L	1SFA 619 402 R5134	10	0.023
White	15	88	2)	CL-513W	1SFA 619 402 R5135	10	0.023
Rated voltage 110-130 V, DC ¹⁾							
Red	15	60	625	CL-515R	1SFA 619 402 R5151	10	0.023
Green	15	126	520	CL-515G	1SFA 619 402 R5152	10	0.023
Yellow	15	60	590	CL-515Y	1SFA 619 402 R5153	10	0.023
Blue	15	22	470	CL-515L	1SFA 619 402 R5154	10	0.023
White	15	88	2)	CL-515W	1SFA 619 402 R5155	10	0.023
Rated voltage 220 V, DC ¹⁾							
Red	15	60	625	CL-520R	1SFA 619 402 R5201	10	0.023
Green	15	126	520	CL-520G	1SFA 619 402 R5202	10	0.023
Yellow	15	60	590	CL-520Y	1SFA 619 402 R5203	10	0.023
Blue	15	22	470	CL-520L	1SFA 619 402 R5204	10	0.023
White	15	88	2)	CL-520W	1SFA 619 402 R5205	10	0.023
Rated voltage 230 V, AC							
Red	15	60	625	CL-523R	1SFA 619 402 R5231	10	0.023
Green	15	126	520	CL-523G	1SFA 619 402 R5232	10	0.023
Yellow	15	60	590	CL-523Y	1SFA 619 402 R5233	10	0.023
Blue	15	22	470	CL-523L	1SFA 619 402 R5234	10	0.023
White	15	88	2)	CL-523W	1SFA 619 402 R5235	10	0.023
Rated voltage 380 V, AC							
Red	15	60	625	CL-530R	1SFA 619 402 R5301	10	0.023
Green	15	126	520	CL-530G	1SFA 619 402 R5302	10	0.023
Yellow	15	60	590	CL-530Y	1SFA 619 402 R5303	10	0.023
Blue	15	22	470	CL-530L	1SFA 619 402 R5304	10	0.023
White	15	88	2)	CL-530W	1SFA 619 402 R5305	10	0.023
Rated voltage 415 V, AC							
Red	15	60	625	CL-541R	1SFA 619 402 R5411	10	0.023
Green	15	126	520	CL-541G	1SFA 619 402 R5412	10	0.023
Yellow	15	60	590	CL-541Y	1SFA 619 402 R5413	10	0.023
Blue	15	22	470	CL-541L	1SFA 619 402 R5414	10	0.023
White	15	88	2)	CL-541W	1SFA 619 402 R5415	10	0.023

¹⁾ Care should be taken for DC supply where + and - must be correctly connected. (this is marked on the product, X1 (+) and X2 (-)). ²⁾ X=0.31, Y=0.32

Pilot devices - Compact range

Accessories



Filament bulbs Ba 9s base Type of current: AC/DC. A lamp changing tool is required for changing bulb.

Description					Type	Order Code	Packing qty	Weight, kg
Rated voltage V	Rated current mA	Rated output W	Service life h	Lumina-nance mcd				
6	200	1.2	10 000	350		5911 086-11	20	0.002
12	100	1.2	10 000	230		5911 086-12	20	0.002
24	50	1.2	10 000	280		5911 086-13	20	0.002
30	40	1.2	10 000	250		5911 086-4	20	0.002
48	42	2	6 000	500		5911 086-5	20	0.002
60	20	1.2	5 000	190		5911 086-14	20	0.002
110	18	2	7 500	250		5911 086-7	20	0.002
130	15	2	7 500	120		5911 086-15	20	0.002

LEDs

With one diode chip mounted on a Ba 9s base. Choose the same color for the LED and the lamp cap or else use a clear lamp cap.

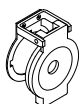
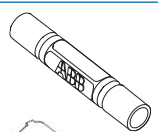
For white light use white LED with clear lamp cap. At DC the lamp base have to be connected to cathode (-/x2) and the bottom contact to anode (+/x1).

Color	Rated current mA	Wave-length nM	Lumi-nance mcd	Type	Order Code	Packing qty	Weight, kg
Rated voltage 12 V, DC Service life >50 000 h							
Red	15	630	250	KA2-2011	1SFA 616 921 R2011	20	0.005
Green	15	525	1000	KA2-2012	1SFA 616 921 R2012	20	0.005
Yellow	15	592	250	KA2-2013	1SFA 616 921 R2013	20	0.005
Blue	15	470	450	KA2-2014	1SFA 616 921 R2014	20	0.005
White	15	x=0.31 y=0.32	600	KA2-2015	1SFA 616 921 R2015	20	0.005
Rated voltage 24 V, (AC)/DC ¹⁾ Service life >50 000 h							
Red	15	630	250	KA2-2021	1SFA 616 921 R2021	20	0.005
Green	15	525	800	KA2-2022	1SFA 616 921 R2022	20	0.005
Yellow	15	592	250	KA2-2023	1SFA 616 921 R2023	20	0.005
Blue	15	470	400	KA2-2024	1SFA 616 921 R2024	20	0.005
White	15	x=0.31 y=0.32	500	KA2-2025	1SFA 616 921 R2025	20	0.005
Rated voltage 48 V, (AC)/DC ¹⁾ Service life >50 000 h							
Red	12	630	200	KA2-2041	1SFA 616 921 R2041	20	0.005
Green	12	525	1700	KA2-2042	1SFA 616 921 R2042	20	0.005
Yellow	12	592	240	KA2-2043	1SFA 616 921 R2043	20	0.005
Blue	12	470	720	KA2-2044	1SFA 616 921 R2044	20	0.005
White	12	x=0.31 y=0.32	1200	KA2-2045	1SFA 616 921 R2045	20	0.005
Rated voltage 60 V, (AC)/DC ¹⁾ Service life >50 000 h							
Red	10	630	160	KA2-2051	1SFA 616 921 R2051	20	0.005
Green	10	525	1400	KA2-2052	1SFA 616 921 R2052	20	0.005
Yellow	10	592	200	KA2-2053	1SFA 616 921 R2053	20	0.005
Blue	10	470	600	KA2-2054	1SFA 616 921 R2054	20	0.005
White	10	x=0.31 y=0.32	1000	KA2-2055	1SFA 616 921 R2055	20	0.005
Rated voltage 110-130 V, AC ¹⁾ Service life 25 000 h							
Red	4-6	630	60-100	KA2-2131	1SFA 616 921 R2131	20	0.005
Green	4-6	525	500-850	KA2-2132	1SFA 616 921 R2132	20	0.005
Yellow	4-6	592	70-120	KA2-2133	1SFA 616 921 R2133	20	0.005
Blue	4-6	470	220-350	KA2-2134	1SFA 616 921 R2134	20	0.005
White	4-6	x=0.31 y=0.32	350-600	KA2-2135	1SFA 616 921 R2135	20	0.005
Rated voltage 110-130 V, AC/DC ¹⁾ Service life 25 000 h							
Red	4-6	630	60-100	KA2-2141	1SFA 616 921 R2141	20	0.005
Green	4-6	525	500-850	KA2-2142	1SFA 616 921 R2142	20	0.005
Yellow	4-6	592	70-120	KA2-2143	1SFA 616 921 R2143	20	0.005
Blue	4-6	470	220-350	KA2-2144	1SFA 616 921 R2144	20	0.005
White	4-6	x=0.31 y=0.32	350-600	KA2-2145	1SFA 616 921 R2145	20	0.005
Rated voltage 230 V, AC ¹⁾ Service life 25 000 h							
Red	4	630	60	KA2-2221	1SFA 616 921 R2221	20	0.005
Green	4	525	500	KA2-2222	1SFA 616 921 R2222	20	0.005
Yellow	4	592	70	KA2-2223	1SFA 616 921 R2223	20	0.005
Blue	4	470	220	KA2-2224	1SFA 616 921 R2224	20	0.005
White	4	x=0.31 y=0.32	350	KA2-2225	1SFA 616 921 R2225	20	0.005

¹⁾ At AC the luminance is decreased with 30 % and there is also a slight flickering.

Pilot devices - Compact range

Accessories



description	Type	Order Code	Packing qty	Weight kg
Lamp changing tool For LEDs and for bulbs	KA1-8072	1SFA 616 920 R8072		0.002
Mounting tool Grey. Used for tightening the locking nut	MA1-8015	1SFA 611 920 R8015		0.021
Membrane of silicone Of transparent, heat and cold resistant silicon rubber. Does not harden at low temperature. Gives IP 67 degree of protection. When membrane is used, remove the gasket.				
Flush button	KA1-8052	1SFA 616 920 R8052	10	0.002
Extended button	KA1-8002	1SFA 616 920 R8002	10	0.002
Protective ring For flush and extended pushbutton To prevent inadvertant operation. Not together with legend plate holder.		SK 615 512-1	10	0.002
Protective cover For flush button. To prevent inadvertant operation. Not together with legend plate holder.	KA1-8010	1SFA 616 920 R8010		0.008
Button Grey, flush Grey, extended	KA1-8087 KA1-8097	1SFA 616 920 R8087 1SFA 616 920 R8097	10 10	0.001 0.001
Bezel For pushbutton Grey Black Metal	KA1-8079 KA1-8022 KA1-8021	1SFA 616 920 R8079 1SFA 616 920 R8022 1SFA 616 920 R8021	10 10 10	0.002 0.002 0.015
For selector switch Grey Black Metal	CA1-8076 CA1-8077 CA1-8078	1SFA 619 920 R8076 1SFA 619 920 R8077 1SFA 619 920 R8078	10 10 10	0.001 0.001 0.010
Square bezel Black, plastic Grey, plastic	- MA1-8124	SK 616 016-2 1SFA 611 920 R8124	10 10	0.001 0.001
Light diffusing lens – To improve illumination. <i>Note: Cannot be used with text cap.</i> The lens is used instead of text cap	KA1-8005	1SFA 616 920 R8005	10	0.001

Pilot devices - Compact range

Accessories



30 mm adaptors

For use when fitting the 22 mm pilot devices in 30 mm mounting holes. (1.5 – 4 mm panels)

Description	Type	Order Code	Weight, kg
For use with pushbuttons, selector switches, emergency stop push-button and pilot lights			
Black plastic.	KA1-8029	1SFA 616 920 R8029	0.010
Metal.	KA1-8030	1SFA 616 920 R8030	0.035
Adaptors			
For flush mounted pushbutton	KA1-8073	1SFA 616 920 R8073	0.050
For flush mounted selector switches	CA1-8075	1SFA 619 920 R8075	0.046

Extra key

Description	Type	Order Code	Weight, kg
Ronis 455 (key code 71)		SK 616 021-71	0.007

Pilot devices - Compact range

Technical data



Approvals

The pushbuttons, selector switches and pilot lights are approved by:

- National approval agencies: UL , China Compulsory Product Certification and GOST
- Marine classifications: Germanische Lloyd

For detailed information please contact ABB

Standards

IEC 60947-1	Low-voltage switchgear and controlgear - Part 1: General rules
IEC 60947-5-1	Low-voltage switchgear and controlgear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices
IEC 60947-5-5	Low-voltage switchgear and controlgear - Part 5-5: Control circuit devices and switching elements - Electrical emergency stop device with mechanical latching function
IEC 60073	Basic and safety principles for man-machine interface, marking and identification - Coding principles for indicators and actuators
IEC 60529	Degrees of protection provided by enclosures (IP Code)
EN 60947-1	Low-voltage switchgear and controlgear - Part 1: General rules
EN 60947-5-1	Low-voltage switchgear and controlgear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices
EN 60947-5-5	Low-voltage switchgear and controlgear - Part 5-5: Control circuit devices and switching elements - Electrical emergency stop device with mechanical latching function
EN 60073	Basic and safety principles for man-machine interface, marking and identification - Coding principles for indication devices and actuators
EN 60529	Degrees of protection provided by enclosures (IP Code)
EN 50013	Low-voltage switchgear and controlgear for industrial use - Terminal marking and distinctive number for particular control switches
UL 508	Industrial Control Equipment
CSA C22.2 No 14	Industrial Control Equipment

Degrees of protection

Pilot device:	IP	UL/CSA
Compact pushbutton, CP1, CP2, CP3, CP4	IP66	Type 1, 3R, 4, 4X, 12, 13
Compact selector switch, C2SS, C3SS	IP66	Type 1, 3R, 4, 4X, 12, 13
Compact pilot light, CL	IP66	Type 1, 3R, 4, 4X, 12, 13
Compact emergency stop pushbutton, CE3T, CE3P, CE4T, CE4P, CE3K1, CE4K1	IP66	Type 1, 3R, 4, 4X, 12, 13
Terminals	IP20	

Mechanical life

Operators

Pushbuttons with flush or extended button, selector switch	500 000 operations
Emergency stop pushbutton	50 000 operations

Temperature

Ambient temperature during operation	-25 to +70 °C
Storage temperature	-30 to +85 °C

Tightening torque

Locking nut, M22	Min. 2 Nm Max. 2.3 Nm
------------------	--------------------------

Contacts

Ratings as per UL, CSA, NEMA	C300	R300
Rated insulation voltage	250 V	250 V
Rated thermal current	2.5 A	1 A
Rated operational current		
at 120 V	1.5 A	
125 V		0.22 A
240 V	0.75 A	
250 V		0.11 A

Ratings as per IEC 60947-5-1

Rated insulation voltage, U_i	300 V
Rated thermal current, I_{th}	5 A
Rated operational current, I_e	
utilisation category AC-15	
at 120 V	1.5 A
240 V	1 A
Rated operational current, I_e	
utilisation category DC-13,	
at 24 V	0.3 A
125 V	0.2 A

Short circuit protection

Max. fuse at 1 kA	16 A ordinary 10 A delayed
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Tightening torque

Compact pushbutton & selector switch	0.8 Nm (M3)
Compact pilot light	0.9 Nm (M3.5)
Compact emergency stop pushbutton	0.8 Nm (M3)

Terminals

Plus-minus Pozidriv No. 2	
Compact pushbutton	
Compact selector switch	
Compact emergency stop	
Connectable area	min. 1 x 0.5 mm ² /1 x AWG22 max. 2 x 1.5 mm ² /2 x AWG14
Compact pilot light	
Connectable area	min. 1 x 0.5 mm ² /1 x AWG20 max. 2 x 2.5 mm ² /2 x AWG14

Material

No ozone depleting substances in the products.

All front parts are made of polycarbonate

Material	Characteristics
PC Polycarbonate	High impact strength, good outdoor resistance. Can withstand light acid solutions, aliphatic hydrocarbons, paraffin, alcohols, animal and vegetable greases.
PA Polyamide	Can withstand high temperatures, aliphatic, aromatic and chlorinated hydrocarbons, esters, ketone-aldehydes, alcohols and basic solutions.
PBT	Can withstand high temperature, aliphatic and aromatic hydrocarbons, acids, basic solutions, alcohols, grease and oils
Zinc	Good corrosion resistance in inland-, sea and industrial atmosphere.
Light-alloy	Good corrosion resistance in inland-, sea and industrial atmosphere.
Rubber	Chloroprene Nitrile

Notes



Lined area for notes, consisting of multiple horizontal lines.



Assembled stations

There are assembled stations of two types:

In **plastic enclosures** and in **metallic enclosures**

Both types of enclosures are available in 1, 2-, 3-, 4- or 6-seat.

Plastic enclosures

Of polycarbonate.

Degree of protection: IP 66, UL Type 1, 3R, 4, 4X, 12, 13

Metallic enclosures

Of light-alloy.

Degree of protection:

With sealing membrane IP 67

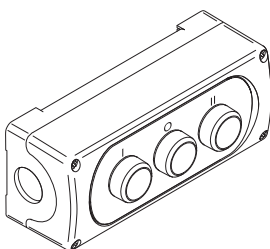
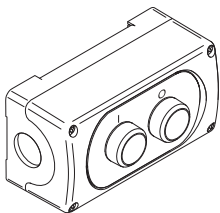
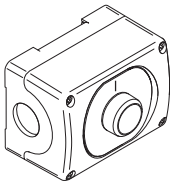
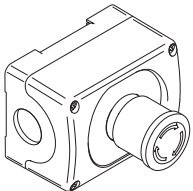
Pilot devices – Assembled stations

Plastic enclosures

Note! Included pilot devices are of modular type

Illuminated pushbutton:

LB = Lamp block type MLB-1
Bulb not included



1-seat Plastic enclosures. Yellow top/light grey bottom

Description ¹⁾	Type	Order Code	Weight, kg
Emergency stop pushbutton, 40 mm. Twist release. No legend plate			
Red 2 NC	MEPY1-1005	1SFA 611 821 R1005	0.234
Red 1 NO + 2 NC	MEPY1-1024	1SFA 611 821 R1024	0.250
Emergency stop pushbutton, 40 mm, illuminated Twist release. No legend plate			
Red 1 NO + 1 NC + 1 LB	MEPY1-1011	1SFA 611 821 R1011	0.250
Emergency stop pushbutton, 40 mm. Pull release. No legend plate			
Red 2 NC	MEPY1-1015	1SFA 611 821 R1015	0.234
Red 1 NC	MEPY1-1009	1SFA 611 821 R1009	0.210

1-seat Plastic enclosures. Dark grey top/light grey bottom

Description ¹⁾	Type	Order Code	Weight, kg
One flush pushbutton. Momentary White 1 NO I	MEP1-1002	1SFA 611 811 R1002	0.200
Green 1 NO I	MEP1-1001	1SFA 611 811 R1001	0.200
Black 1 NC O	MEP1-1004	1SFA 611 811 R1004	0.200
Red 1 NC O	MEP1-1003	1SFA 611 811 R1003	0.200

2-seat Plastic enclosure. Dark grey top/light grey bottom

Description ¹⁾	Type	Order Code	Weight, kg
Two flush pushbuttons. Momentary.			
Left Right			
Red Green 1 NC 1 NO I O	MEP2-1001	1SFA 611 812 R1001	0.220

3-seat Plastic enclosure. Dark grey top/light grey bottom

Description ¹⁾	Type	Order Code	Weight, kg
Three flush pushbuttons. Momentary			
Left Center Right			
Green Red Green 1 NO 1 NC 1 NO I O II	MEP3-1004	1SFA 611 813 R1004	0.300

¹⁾ Description = Button color/cap color, Included contact blocks (NO, NC) & Lamp block (LB), Legend plate text

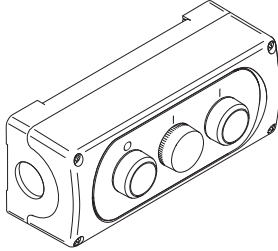
Pilot devices – Assembled stations

Plastic and metallic enclosures

Note! Included pilot devices are of modular type

Illuminated pushbutton:

LB = Lamp block type MLB-1
Bulb not included

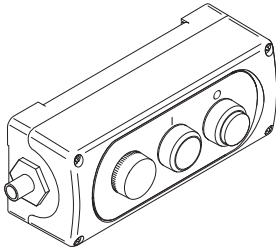


3-seat Plastic enclosures. Dark grey top/light grey bottom

Description ¹⁾	Type	Order Code	Weight, kg
Two flush pushbuttons, pilot light in centre position.			
Momentary (Lamp block type MLB-1)			
Left	Center	Right	
Red	Clear	Green	
1 NC	1 LB	1 NO	
O	I	I	
MEP3-1001		1SFA 611 813 R1001	0.300
Two flush pushbuttons, pilot light in centre position.			
Momentary (Lamp block MLB-3)			
Left	Center	Right	
Red	Clear	Green	
1 NC	1 LB	1 NO	
O	I	I	
MEP3-1003		1SFA 611 813 R1003	0.300

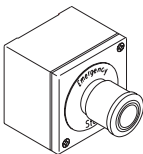
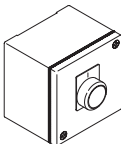
Plastic enclosures with interface for ABB Field Bus Plug

Description ¹⁾	Type	Order Code	Weight, kg												
1-seat Plastic enclosure. Yellow top/ light grey bottom Emergency stop pushbutton, 40 mm Twist release. Red Emergency stop 1 NO	MEPN1-5001	1SFA 611 841 R5001	0.300												
2-seat Plastic enclosure. Dark grey top/ light grey bottom One flush, illuminated and one extended pushbutton (One LED for 24 V included) <table><tr><th>Left</th><th>Right</th></tr><tr><td>White</td><td>Black (extended).</td></tr><tr><td>1 NO</td><td>1 NO</td></tr><tr><td>1 LB</td><td></td></tr><tr><td>I</td><td>O</td></tr></table>	Left	Right	White	Black (extended).	1 NO	1 NO	1 LB		I	O	MEPN2-5001	1SFA 611 842 R5001	0.350		
Left	Right														
White	Black (extended).														
1 NO	1 NO														
1 LB															
I	O														
3-seat Plastic enclosure. Dark grey top/ light grey bottom Two pushbuttons Momentary (One LED for 24 V included) <table><tr><th>Left</th><th>Center</th><th>Right</th></tr><tr><td>White</td><td>White</td><td>Black (extended).</td></tr><tr><td>1 LB</td><td>1 NO</td><td>1 NO</td></tr><tr><td></td><td>I</td><td>O</td></tr></table>	Left	Center	Right	White	White	Black (extended).	1 LB	1 NO	1 NO		I	O	MEPN3-5001	1SFA 611 843 R5001	0.400
Left	Center	Right													
White	White	Black (extended).													
1 LB	1 NO	1 NO													
	I	O													



1-seat Metallic enclosure. Grey

Description ¹⁾	Type	Order Code	Weight, kg
One flush pushbutton Momentary.			
Degree of protection IP 66			
Green			
1 NC			
I	MEM1-1001	1SFA 611 831 R1001	0.380
40 mm emergency stop button			
Maintained. Twist release.			
Degree of protection IP 66.			
Red			
2 NC			
Emergency stop	MEM1-1016	1SFA 611 831 R1016	0.420
40 mm emergency stop button			
Maintained. Pull release.			
Degree of protection IP 66.			
Red			
1 NC			
Emergency stop	MEM1-1018	1SFA 611 831 R1018	0.406



¹⁾ Description = Button color/cap color, Included contact blocks (NO, NC) & Lamp block (LB), Legend plate text

Pilot devices - Plastic enclosures

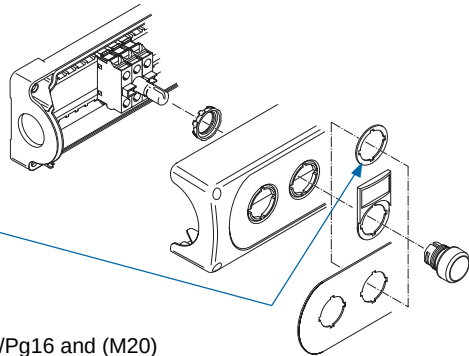
Degree of protection IP 66

Empty plastic enclosures Now with stainless steel screws

Size	Color top/bottom	Type	Order Code	Weight, kg
1-seat	Dark grey/Light grey	MEP1-0	1SFA 611 811 R1000	0.15
1-seat	Yellow/Light grey	MEPY1-0	1SFA 611 821 R1000	0.15
2-seat	Dark grey/Light grey	MEP2-0	1SFA 611 812 R1000	0.17
3-seat	Dark grey/Light grey	MEP3-0	1SFA 611 813 R1000	0.20
4-seat	Dark grey/Light grey	MEP4-0	1SFA 611 814 R1000	0.23
6-seat	Dark grey/Light grey	MEP6-0	1SFA 611 816 R1000	0.30

When ordering

- Select operators from page 10-26 and 36-39.
N.B. Selector switches with short handle for vertically mounted selector switches must be ordered from page 50-51
- Select contact blocks and lamp blocks for **rear** mounting, see page 49.
- Accessories, see page 49
N.B. **One spacer per operator** has to be ordered if legend plate is not used. (for rear mounted pilot devices)
- Holes for cable glands
1-seat to 3-seat enclosures: M20 and Pg 13.5/Pg16 and (M20)
4-seat and 6-seat enclosures: M25/Pg 16 and (M20)



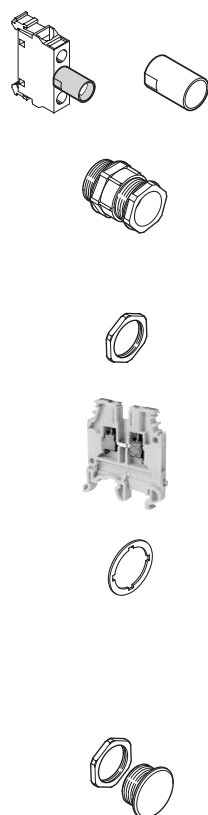
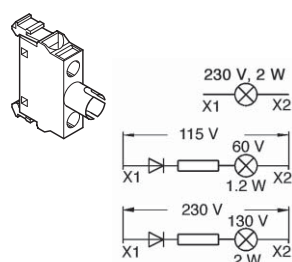
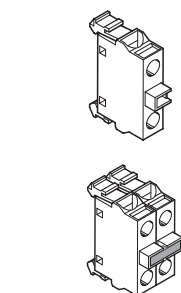
UL-listed applications:

For end of line use only.

Note: 25 mm knock-out in one end, 1/2 " knock-out in the other end.

Pilot devices - Plastic enclosures

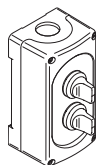
Accessories



Contact blocks for rear mounting

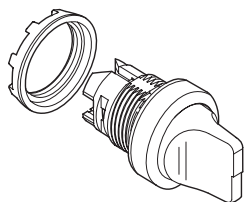
Description	Type	Order Code	Packing qty	Weight, kg
Contact block				
1NO	MCB-10B	1SFA 611 610 R2001	10	0.013
1NC	MCB-01B	1SFA 611 610 R2010	10	0.013
Double contact block				
2NO	MCB-20B	1SFA 611 610 R2002	10	0.026
2NC	MCB-02B	1SFA 611 610 R2020	10	0.026
1NO+1NC	MCB-11B	1SFA 611 610 R2011	10	0.026
Contact block with gold plated contacts				
1NO	MCB-10BG	1SFA 611 610 R2101	10	0.013
1NC	MCB-01BG	1SFA 611 610 R2110	10	0.013
Lamp blocks				
For max. 2 W, 230 V AC and DC filament bulb or LED				
115 V AC supply voltage.	MLB-1B	1SFA 611 620 R2001	10	0.015
For 60 V filament bulb max. 1.2 W	MLB-2B	1SFA 611 620 R2002	10	0.017
230 V AC supply voltage.				
For 130 V filament bulb max. 2 W	MLB-3B	1SFA 611 620 R2003	10	0.020

Description	Type	Order Code	Packing qty	Weight, kg
Protective sleeve				
To make a rear mounted lamp block screen protected. IP20 (Not together with illuminated selector switch)				
	–	5396 0543-1	10	0.002
Cable gland				
Grey plastic. threaded outer sleeve Sealing ring included.				
M25	MA5-3001	1SFA 611 925 R3001	10	0.015
M20	MA5-3002	1SFA 611 925 R3002	10	0.015
Nut				
Grey plastic. For cable gland above.				
M25	MA5-3003	1SFA 611 925 R3003	10	0.005
M20	MA5-3004	1SFA 611 925 R3004	10	0.005
Earthing terminal				
For plastic enclosure.	MA5-2005	1SFA 611 925 R3005	10	0.005
Spacer				
1 mm thick. Needed when legend plates are not used in plastic enclosures.				
Spacer)	–	SK 615 516-1	10	0.002
Spacer for Modular emergency stop pushbutton, page 16	KA1-8045	1SFA 616 920 R 8045	10	0.004
Blanking plug				
Black plastic	–	SK 616 502-B		0.030

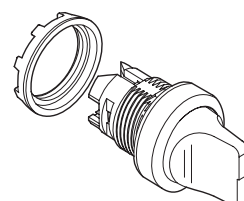


Pilot devices - Modular range

Two position selector switches for mounting in vertically mounted enclosures



1SFC151079F0001



1SFC151079F0001

Bezel in black plastic as standard
Bezel in metal:

Replace '1' in the:
Type M2SSX-1 0X
Order Code 1SFA611XXX R 1XXX
2 for chrome plastic bezel
3 for metal bezel

Contact functions

Block positions as seen from operator front.

Handle position	Left block	Right block
A (B)	O	O
O	x	x

O = not actuated (normal state)
x = actuated (state changed)

Non-illuminated operator ... ¹⁾

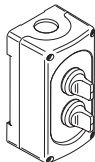
Symbol	Handle color	Type	Order Code	Weight, kg
with short handle				
Maintained				
	Red	M2SSV1-10R	1SFA 611 220 R1001	0.015
	Black	M2SSV1-10B	1SFA 611 220 R1006	0.015
Maintained				
	Red	M2SSV2-10R	1SFA 611 221 R1001	0.015
	Black	M2SSV2-10B	1SFA 611 221 R1006	0.015
Momentary, spring return from C to B				
	Red	M2SSV3-10R	1SFA 611 222 R1001	0.015
	Black	M2SSV3-10B	1SFA 611 222 R1006	0.015

Illuminated operator ... ^{1) 2)}

Symbol	Handle color	Type	Order Code	Weight, kg
with short handle				
Maintained				
	Red	M2SSV1-11R	1SFA 611 220 R1101	0.015
	Green	M2SSV1-11G	1SFA 611 220 R1102	0.015
	Yellow	M2SSV1-11Y	1SFA 611 220 R1103	0.015
Maintained				
	Red	M2SSV2-11R	1SFA 611 221 R1101	0.015
	Green	M2SSV2-11G	1SFA 611 221 R1102	0.015
	Yellow	M2SSV2-11Y	1SFA 611 221 R1103	0.015
Momentary, spring return from C to B				
	Red	M2SSV3-11R	1SFA 611 222 R1101	0.015
	Green	M2SSV3-11G	1SFA 611 222 R1102	0.015
	Yellow	M2SSV3-11Y	1SFA 611 22 2 R1103	0.015

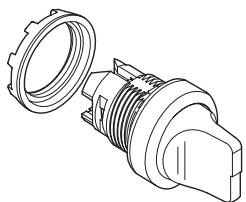
¹⁾ No contact in center position

²⁾ Lamp block for max 230 V AC/DC. Bulb not included. Other lamp block see Accessories

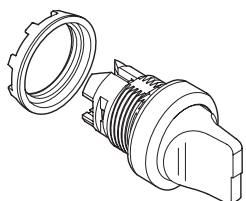


Pilot devices - Modular range

Three position selector switches for mounting in vertically mounted enclosures



1SFC151079F0001



1SFC151079F0001

Bezel in black plastic as standard
Bezel in metal:

Replace '1' in the:
Type M3SSX-1 0X
Order Code 1SFA611XXX R 1XXX
2 for chrome plastic bezel
3 for metal bezel

Contact functions

Block positions as seen from operator front.

Handle position	Left block	Right block
A	x	O
B	O	O
C	O	x

Non-illuminated operator ...¹⁾

Symbol	Handle color	Type	Order Code	Weight, kg
--------	--------------	------	------------	------------

with short handle

Maintained



Red
Black

M3SSV1-10R
M3SSV1-10B

1SFA 611 230 R1001
1SFA 611 230 R1006

0.015
0.015

Momentary, spring return from A to B and from C to B



Red
Black

M3SSV2-10R
M3SSV2-10B

1SFA 611 231 R1001
1SFA 611 231 R1006

0.015
0.015

Momentary, spring return from C to B



Red
Black

M3SSV3-10R
M3SSV3-10B

1SFA 611 232 R1001
1SFA 611 232 R1006

0.015
0.015

Illuminated operator ...^{1) 2)}

Symbol	Handle color	Type	Order Code	Weight, kg
--------	--------------	------	------------	------------

with short handle

Maintained



Red
Green
Yellow

M3SSV1-11R
M3SSV1-11G
M3SSV1-11Y

1SFA 611 230 R1101
1SFA 611 230 R1102
1SFA 611 230 R1103

0.015
0.015
0.015

Momentary, spring return from A to B and from C to B



Red
Green
Yellow

M3SSV2-11R
M3SSV2-11G
M3SSV2-11Y

1SFA 611 231 R1101
1SFA 611 231 R1102
1SFA 611 231 R1103

0.015
0.015
0.015

Momentary, spring return from C to B



Red
Green
Yellow

M3SSV3-11R
M3SSV3-11G
M3SSV3-11Y

1SFA 611 232 R1101
1SFA 611 232 R1102
1SFA 611 232 R1103

0.015
0.015
0.015

¹⁾ No contact in centre position

²⁾ Lamp block for max 230 V AC/DC. Bulb not included. Other lamp block see Accessories

Contact blocks, lamp block and holder See Page 49

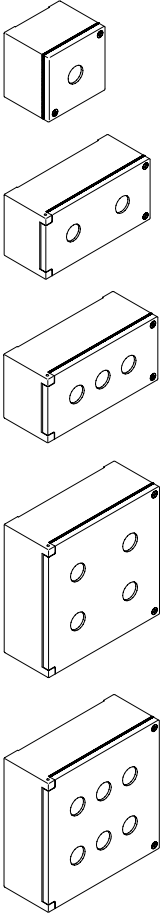
Pilot devices - Metallic enclosures

Degree of protection IP67 and IP66

Empty metallic enclosures

Size	Color top/bottom	Type	Order Code	Weight, kg
1-seat	Grey	KEM1-0	SK 616 701-AA	0.40
2-seat	Grey	KEM2-0	SK 616 702-AA	0.70
3-seat	Grey	KEM3-0	SK 616 703-AA	0.80
4-seat	Grey	KEM4-0	SK 616 704-AA ¹⁾	1.20
6-seat	Grey	KEM6-0	SK 616 706-AA ¹⁾	1.40

¹⁾ Flanges are not included



Pilot devices - Metallic enclosures

Accessories



Cable gland

Metal. Threaded outer sleeve.

Pr	Pg	Sealing diameter, mm	Type	Order Code	Weight, kg
22.5	16	8.5 - 11.5		SK 170 7685	0.040
22.5	16	10.5 - 13.5		SK 170 7686	0.045
22.5	16	12.5 - 15.0		SK 170 7687	0.050



Sealing ring

Description	Type	Order Code	Weight, kg
Rubber, Pr 22.5, Pg 16		SK 170 0182	0.010



Blanking plates

Without holes. Metal. Black For 4- and 6-seat enclosures. *Note: Gasket not included*

For flange opening	Suitable flange gasket Order Code	Type	Order Code	Weight, kg
FL 13	SK 170 4536		SK 172 105-AA	0.110

With holes. Metal. Black For 4- and 6-seat enclosures. *Note: Gasket not included*

For flange opening	Suitable flange gasket Order Code	Type	Order Code	Weight, kg
Two holes Pr 22.5 (Pg 16). Hole centre distance 50 mm				
FL 13	SK 170 4536		SK 172 105-AD	0.110
Three holes Pr 22.5 (Pg 16). Hole centre distance 38 mm				
FL 13	SK 170 4536		SK 172 105-AE	0.110
Four holes Pr 22.5 (Pg 16). Hole centre distance 30 mm				
FL 13	SK 170 4536		SK 172 105-AF	0.110



Flange gasket

Description	Type	Order Code	Weight, kg
FL 13		SK 170 4536	0.005



Blanking plug

Applicable to cover a 22 mm-hole in an enclosure instead of an operator. Gasket and nut included.

Description	Type	Order Code	Weight, kg
Black plastic		SK 616 502-B	0.030



Sealing plug

Plastic. Black

For holes	Type	Order Code	Weight, kg
Pr 22.5 Pg 16		SK 175 919-3	0.010

Notes



ABB Pilot devices

Legend plates



Fixed legend plates

- Of silvergrey aluminium for:
 - pushbuttons
 - two-position selector switches
 - three-position selector switches
 - toggle switches
 - customer selected text
- Of black/white plastic. Text on one side or both sides:
 - with customer selected text

Special legend plates

- For emergency stop pushbuttons
- Legend plate with or without customer selected text
- Legend plate holders (black) with inserts of brushed aluminium look on black plastic. With or without text or symbol for:
 - pushbuttons
 - two-position selector switch
 - three position selector switch
 - customer selected text

For plastic enclosures:

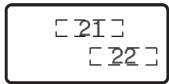
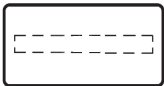
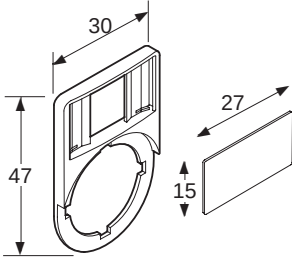
- Legend plate holders (grey) with inserts of brushed aluminium look on black plastic. With or without text or symbol for pushbuttons
- Legend plates of silvergrey aluminium For 1- 2-, 3- 4- or 6-seat plastic enclosures With or without text or symbol for:
 - pushbuttons
- For emergency stop pushbuttons

Text caps

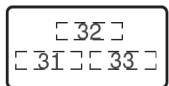
- For illuminated pushbuttons (flush or extended) and pilot lights with or without text or symbol or with customer selected text

Pilot devices - Accessories

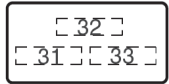
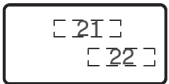
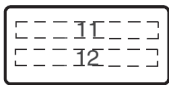
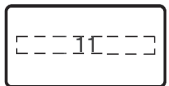
Special legend plates



For two-position selector switch

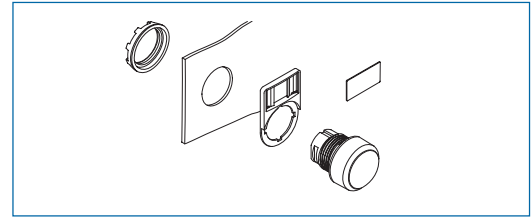


For three-position selector switch



Legend plate holders with inserts

- Holder of black plastic.
 - Holder of grey plastic for plastic enclosures.
 - Insert of brushed aluminium look on black plastic.
- The insert is securely retained in a pocket and can be removed.
3 mm high text in typeface Helvetica.



Description	Type	Order Code	Packing qty	Weight, kg
Legend plate holder (black)				
Black	KA1-8120	1SFA 616 920 R8120	10	0.002

Inserts

Of brushed aluminium look on black plastic

Without text or symbol	KA1-8121	1SFA 616 920 R8121	10	0.001
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Inserts with text/symbol

Of brushed aluminium look on black plastic

With text or symbol

O	MA6-1032	1SFA 611 930 R1032	0.001
I	MA6-1033	1SFA 611 930 R1033	0.001
→	MA6-1034	1SFA 611 930 R1034	0.001
→→	MA6-1035	1SFA 611 930 R1035	0.001
Close	MA6-1036	1SFA 611 930 R1036	0.001
Open	MA6-1037	1SFA 611 930 R1037	0.001
On	MA6-1038	1SFA 611 930 R1038	0.001
Off	MA6-1039	1SFA 611 930 R1039	0.001
Fast	MA6-1040	1SFA 611 930 R1040	0.001
Slow	MA6-1041	1SFA 611 930 R1041	0.001
Down	MA6-1042	1SFA 611 930 R1042	0.001
Up	MA6-1043	1SFA 611 930 R1043	0.001
Start	MA6-1044	1SFA 611 930 R1044	0.001
Stop	MA6-1045	1SFA 611 930 R1045	0.001

Inserts for two-position selector switches

Of brushed aluminium look on black plastic. Text on both sides.

With text or symbol

Pos. 21 Pos. 22

O	I	MA6-1070	1SFA 611 930 R1070	0.001
I	II	MA6-1071	1SFA 611 930 R1071	0.001
→	→→	MA6-1072	1SFA 611 930 R1072	0.001
Off	On	MA6-1073	1SFA 611 930 R1073	0.001
Stop	Start	MA6-1074	1SFA 611 930 R1074	0.001
Low	High	MA6-1075	1SFA 611 930 R1075	0.001
Slow	Fast	MA6-1076	1SFA 611 930 R1076	0.001
Close	Open	MA6-1077	1SFA 611 930 R1077	0.001
Jog	Run	MA6-1078	1SFA 611 930 R1078	0.001
Hand	Auto	MA6-1079	1SFA 611 930 R1079	0.001

Inserts for three-position selector switches

Of brushed aluminium look on black plastic. Text on both sides.

With text or symbol

Pos. 31 Pos. 32 Pos. 33

←	O	→	MA6-1080	1SFA 611 930 R 1080	0.001
→	O	→→	MA6-1081	1SFA 611 930 R 1081	0.001
I	O	II	MA6-1082	1SFA 611 930 R 1082	0.001
Hand	O	Auto	MA6-1083	1SFA 611 930 R 1083	0.001
Slow	Off	Fast	MA6-1084	1SFA 611 930 R 1084	0.001

Inserts with customer-selected text/symbols ¹⁾

Of brushed aluminium on black plastic

With text	MA6-1090	1SFA 611 930 R 1090	0.001
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When ordering state (in addition to Order Code)

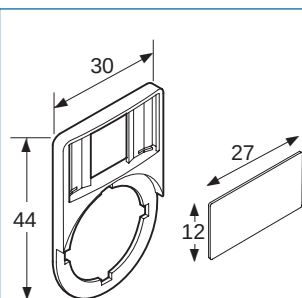
Text line: Pos. 11 or 12 - max 11 characters per line
Pos. 31 - max 5 characters per line

Pos. 21 or 32 - max 5 characters
Pos. 22 or 33 - max 5 characters

¹⁾ Text height 3 mm. Only the initial character is upper case unless other is stated

Pilot devices - Accessories

Special legend plates



Description	Type	Order Code	Packing qty	Weight, kg
Legend plate holder (grey) for plastic enclosures				
Grey	MA6-1060	1SFA 611 930 R1060	10	0.002

Inserts

Of brushed aluminium look on black plastic

Without text or symbol	MA6-1061	1SFA 611 930 R1061	10	0.001
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Inserts with text/symbol

Of brushed aluminium on black plastic

With text or symbol

O	MA6-1062	1SFA 611 930 R1062	0.001
I	MA6-1063	1SFA 611 930 R1063	0.001
II	MA6-1064	1SFA 611 930 R1064	0.001
→	MA6-1130	1SFA 611 930 R1130	0.001
→→	MA6-1131	1SFA 611 930 R1131	0.001
Close	MA6-1132	1SFA 611 930 R1132	0.001
Open	MA6-1133	1SFA 611 930 R1133	0.001
On	MA6-1134	1SFA 611 930 R1134	0.001
Off	MA6-1135	1SFA 611 930 R1135	0.001
Fast	MA6-1136	1SFA 611 930 R1136	0.001
Slow	MA6-1137	1SFA 611 930 R1137	0.001
Down	MA6-1138	1SFA 611 930 R1138	0.001
Up	MA6-1139	1SFA 611 930 R1139	0.001
Start	MA6-1140	1SFA 611 930 R1140	0.001
Stop	MA6-1141	1SFA 611 930 R1141	0.001

Inserts for two-position selector switches

Of brushed aluminium look on black plastic. Text on both sides.

With text or symbol

Pos. 21 Pos. 22

O	I	MA6-1170	1SFA 611 930 R1170	0.001
I	II	MA6-1171	1SFA 611 930 R1171	0.001
→	→→	MA6-1172	1SFA 611 930 R1172	0.001
Off	On	MA6-1173	1SFA 611 930 R1173	0.001
Stop	Start	MA6-1174	1SFA 611 930 R1174	0.001
Low	High	MA6-1175	1SFA 611 930 R1175	0.001
Slow	Fast	MA6-1176	1SFA 611 930 R1176	0.001
Close	Open	MA6-1177	1SFA 611 930 R1177	0.001
Jog	Run	MA6-1178	1SFA 611 930 R1178	0.001
Hand	Auto	MA6-1179	1SFA 611 930 R1179	0.001

Inserts for three-position selector switches

Of brushed aluminium look on black plastic. Text on both sides.

With text or symbol

Pos. 31 Pos. 32 Pos. 33

←	O	→	MA6-1190	1SFA 611 930 R 1190	0.001
→	O	→→	MA6-1191	1SFA 611 930 R 1191	0.001
I	O	II	MA6-1192	1SFA 611 930 R 1192	0.001
Hand	O	Auto	MA6-1193	1SFA 611 930 R 1193	0.001
Slow	Off	Fast	MA6-1194	1SFA 611 930 R 1194	0.001

More legend plates for plastic enclosures – see page 66

Pilot devices - Accessories

Special legend plates

Emergency stop legend plates

Description/Text	Order Code	Weight, kg
Black text on a yellow aluminium plate.		
Nöd Stopp	SK 615 546-1	0.010
Emergency Stop	SK 615 546-2	0.010
Not Aus	SK 615 546-3	0.010
ARRET D'URGENCE	SK 615 546-4	0.010
HÄTÄSEIS	SK 615 546-5	0.010
PARADA DE EMERGENCIA	SK 615 546-6	0.010
EMERGENCY STOP		
NOT AUS		
ARRET D'URGENCE	SK 615 546-13	0.010
Without text	SK 615 546-8	0.010
Black text on a yellow plastic plate.		
Quantity per package: 10		
Can be used as yellow background.		
Emergency Stop	1SFA 616 915 R1005	0.003

More emergency stop legend plates on page 66.

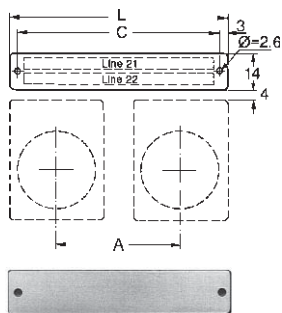
Legend plates without or with customer-selected text

Of aluminium

Number of operators	Max. number of characters per line	Dimensions			Without text ¹⁾	With text ²⁾	Weight, kg
		A	L	C	Order Code	Order Code	
1	7	-	29.6	23.6	SK 615 545-1	SK 615 998-1	0.001
2	20	30.5	60	54	SK 615 545-2	SK 615 998-2	0.001
2	24	40	70	64	SK 615 545-3	SK 615 998-3	0.001
3	33	30.5	90	84	SK 615 545-4	SK 615 998-4	0.001
3	42	40	110	104	SK 615 545-5	SK 615 998-5	0.001

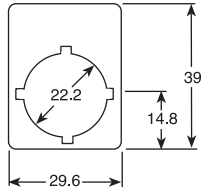
¹⁾ Quantity per package: 10.

²⁾ When ordering, please state text and position (Line 21 and Line 22). Only the initial character is upper case unless other is stated. Quantity per package: 1.



Pilot devices - Accessories

Legend plates for pushbuttons



Engraved fixed legend plates, with symbols ¹⁾

Of silvergrey aluminium

Symbol	Order Code	Weight, kg
O	SK 615 550-61	0.002
I	SK 615 550-62	0.002
II	SK 615 550-63	0.002
←	SK 615 562-12	0.002
→	SK 615 562-18	0.002
↔	SK 615 562-27	0.002

Engraved fixed legend plates, with text ¹⁾

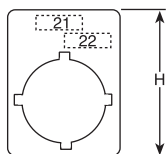
Of silvergrey aluminium

Text	Order Code	Weight, kg
English		
Close	SK 615 552-13	0.002
Down	SK 615 552-14	0.002
Emergency stop	SK 615 552-15	0.002
Fast	SK 615 552-16	0.002
Forward	SK 615 552-17	0.002
In	SK 615 550-29	0.002
Inching	SK 615 552-18	0.002
Left	SK 615 552-39	0.002
Lower	SK 615 552-20	0.002
Off	SK 615 552-21	0.002
On	SK 615 552-22	0.002
Open	SK 615 552-23	0.002
Out	SK 615 552-24	0.002
Raise	SK 615 552-25	0.002
Reset	SK 615 552-27	0.002
Reverse	SK 615 552-28	0.002
Right	SK 615 552-40	0.002
Run	SK 615 552-29	0.002
Slow	SK 615 552-30	0.002
Start	SK 615 550-44	0.002
Stop	SK 615 552-31	0.002
Up	SK 615 552-32	0.002
Swedish		
Back	SK 615 550-12	0.002
Drift	SK 615 550-15	0.002
Fel	SK 615 550-16	0.002
Fram	SK 615 550-18	0.002
Framryckning	SK 615 550-19	0.002
Från	SK 615 550-20	0.002
Hög	SK 615 550-27	0.002
Höger	SK 615 550-28	0.002
In	SK 615 550-29	0.002
Låg	SK 615 550-32	0.002
Manöverspänning	SK 615 550-33	0.002
Minskar	SK 615 550-34	0.002
Ned	SK 615 550-35	0.002
Normal	SK 615 550-37	0.002
Nödstopp	SK 615 550-38	0.002
Prov	SK 615 550-39	0.002
Start	SK 615 550-44	0.002
Stopp	SK 615 550-45	0.002
Stänger	SK 615 550-46	0.002
Till	SK 615 550-47	0.002
Upp	SK 615 550-48	0.002
Ut	SK 615 550-49	0.002
Utlösning	SK 615 550-50	0.002
Vänster	SK 615 550-51	0.002
Återställning	SK 615 550-52	0.002
Ökar	SK 615 550-53	0.002
Öppnar	SK 615 550-54	0.002

¹⁾ Text height 3 mm.

Pilot devices - Accessories

Legend plates for two-position selector switches



H = 39 mm

Engraved fixed legend plates, with symbols ¹⁾

Of silvergrey aluminium

Symbol/Text	Order Code	Weight, kg
Pos 21 Pos. 22		
O I	SK 615 550-75	0.002
I II	SK 615 550-76	0.002
→ →→	SK 615 562-72	0.002

Engraved fixed legend plates, with text ¹⁾

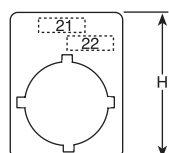
Of silvergrey aluminium

Symbol/Text	Order Code	Weight, kg
Pos 21 Pos. 22		
English		
Hand Auto	SK 615 550-71	0.002
Jog Run	SK 615 552-52	0.002
Off On	SK 615 552-53	0.002
Stop Start	SK 615 552-55	0.002
Swedish		
Från Till	SK 615 550-70	0.002
Hand Auto	SK 615 550-71	0.002
Låg Hög	SK 615 550-72	0.002
Prov Drift	SK 615 550-73	0.002
Stopp Start	SK 615 550-74	0.002

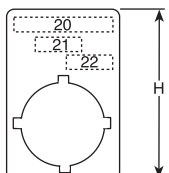
Fixed legend plates, with customer-selected text ¹⁾

Description	Order Code	Weight, kg
Without heading H= 39 mm		
Of silvergrey aluminium	SK 615 999-1	0.002
Of silvergrey laminated plastic	SK 616 999-21	0.002
When ordering state (in addition to Order Code)		
Text line: Pos. 21 - max 5 characters		
Pos. 22 - max 5 characters		
With heading H= 44.5 mm		
Of silvergrey aluminium	SK 615 999-2	0.002
Of silvergrey laminated plastic	SK 616 999-22	0.002
When ordering state (in addition to Order Code)		
Text line: Pos. 20 - max 11 characters		
Pos. 21 - max 5 characters		
Pos. 22 - max 5 characters		

¹⁾ Text height 3 mm. Only the initial character is upper case unless other is stated.



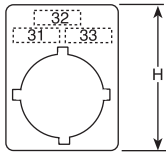
H = 39 mm



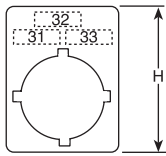
H = 44.5 mm

Pilot devices - Accessories

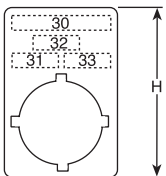
Legend plates for three-position selector switches



H = 39 mm



H = 39 mm



H = 44.5 mm

Engraved fixed legend plates, with symbols ¹⁾

Of silvergrey aluminium

Symbol/Text	Order Code	Weight, kg
Pos 31 Pos. 32 Pos. 33		
I O II	SK 615 550-81	0.002
← O →	SK 615 562-82	0.002
→ O →→	SK 615 562-83	0.002

Engraved fixed legend plates, with text ¹⁾

Of silvergrey aluminium

Symbol/Text	Order Code	Weight, kg
Pos 31 Pos. 32 Pos. 33		
English		
Hand O Auto	SK 615 550-80	0.002
Slow Off Fast	SK 615 552-60	0.002
Swedish		
Hand O Auto	SK 615 550-80	0.002

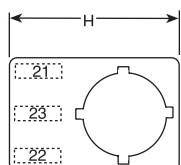
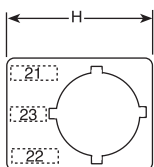
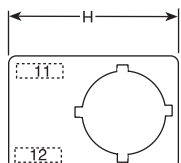
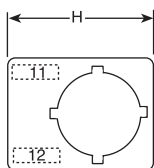
Fixed legend plates, with customer-selected text ¹⁾

Description	Order Code	Weight, kg
Without heading H= 39 mm		
Of silvergrey aluminium	SK 615 999-1	0.002
Of silvergrey laminated plastic	SK 616 999-21	0.002
When ordering state (in addition to Order Code)		
Text line: Pos. 31 - max 5 characters		
Pos. 32 - max 5 characters		
Pos. 33 - max 5 characters		
With heading H= 44.5 mm		
Of silvergrey aluminium	SK 615 999-2	0.002
Of silvergrey laminated plastic	SK 616 999-22	0.002
When ordering state (in addition to Order Code)		
Text line: Pos. 30 - max 11 characters		
Pos. 31 - max 5 characters		
Pos. 32 - max 5 characters		
Pos. 33 - max 5 characters		

¹⁾ Text height 3 mm. Only the initial character is upper case unless other is stated.

Pilot devices - Accessories

Legend plates for toggle switches



Fixed legend plates with customer-selected text ¹⁾

Of silvergrey aluminium

Description	Order Code	Weight, kg
Toggle switch, two positions Two text lines. H = 39 mm	SK 615 999-3	0.002
When ordering state (in addition to Order Code) Text line: Pos. 11 - max 4 characters Pos. 12 - max 4 characters		
Two text lines. H = 44.5 mm	SK 615 999-4	0.002
When ordering state (in addition to Order Code) Text line: Pos. 11 - max 6 characters Pos. 12 - max 6 characters		

Fixed legend plates with customer-selected text ¹⁾

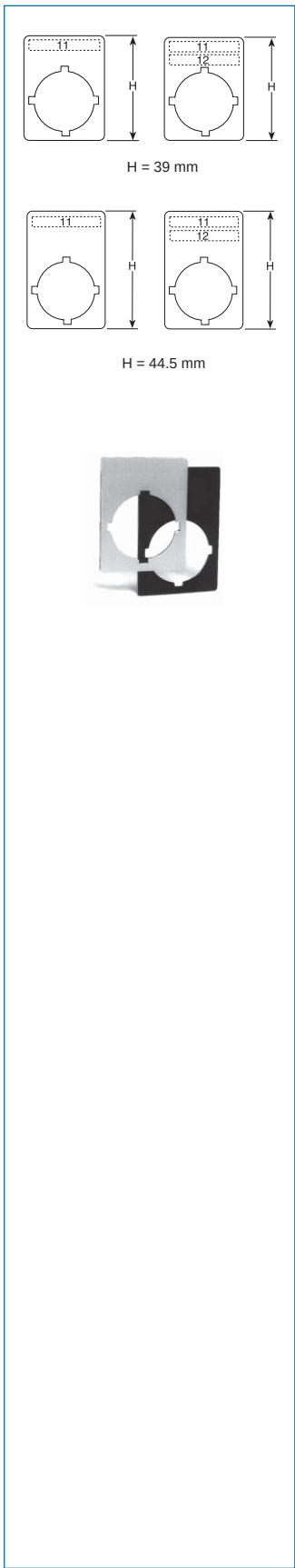
Of silvergrey aluminium

Description	Order Code	Weight, kg
Toggle switch, three positions Three text lines. H = 39 mm		
Of silvergrey aluminium	SK 615 999-3	0.002
Of silvergrey laminated plastic	SK 616 999-23	0.002
When ordering state (in addition to Order Code) Text line: Pos. 21 - max 4 characters Pos. 23 - max 3 characters Pos. 22 - max 4 characters		
Three text lines. H = 44.5 mm		
Of silvergrey aluminium	SK 615 999-4	0.002
Of silvergrey laminated plastic	SK 616 999-24	0.002
When ordering state (in addition to Order Code) Text line: Pos. 21 - max 6 characters Pos. 23 - max 5 characters Pos. 22 - max 6 characters		

¹⁾ Text height 3 mm. Only the initial character is upper case unless other is stated.

Pilot devices - Accessories

Legend plates for toggle switches



Fixed legend plates without text (for pushbuttons, mushroom pushbuttons and pilot lights)¹⁾

Of silvergrey aluminium

Description	Order Code	Weight, kg
For 1 - 2 text lines. H = 39 mm	SK 615 540-1	0.002
For 2 - 3 text lines. H = 44.5 mm	SK 615 541-1	0.002

Fixed legend plates with customer-selected text¹⁾

Of silvergrey aluminium

Description	Order Code	Weight, kg
For 1 text line. H = 39 mm	SK 615 999-1	0.002
For 2 text lines. H = 44.5 mm	SK 615 999-2	0.002

Text line: Pos. 11 - max 11 characters

Pos. 12 - max 11 characters

Fixed legend plates

Of black/white plastic. One side black and the other white. Engraving will give either white or black text.

Description	Order Code	Weight, kg
For 1 - 2 text lines. H = 39 mm	SK 616 540-2	0.002
For 2 - 3 text lines. H = 44.5 mm	SK 616 541-2	0.002

Text line: Pos. 11 - max 11 characters

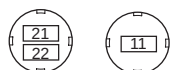
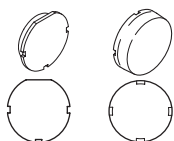
Pos. 12 - max 11 characters

¹⁾ Text height 3 mm. Only the initial character is upper case unless other is stated.

Pilot devices - Accessories

Text caps

Flush or extended button

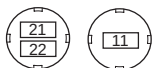


Can be turned 90° or 180°

Characters per line

1 text line (pos. 11): max. 6
2 text lines (pos. 21): max. 5
(pos. 22): max. 5

Pilot light



Characters per line

1 text line (pos. 11): max. 8
2 text lines (pos. 21): max. 8
(pos. 22): max. 8

Text caps for illuminated pushbuttons and pilot lights

Text/Symbol	Cap color ¹⁾	Flush button Order Code	Extended button Order Code	Pilot light Order Code	Weight kg
Till	White	1SFA 616 901 R2020	1SFA 616 902 R2020	1SFA 616 903 R2020	0.001
Från	White	1SFA 616 901 R2019	1SFA 616 902 R2019	1SFA 616 903 R2019	0.001
Start	White	1SFA 616 901 R2030	1SFA 616 902 R2030	1SFA 616 903 R2030	0.001
START	White	1SFA 616 906 R1042	–	–	0.001
Stopp	White	1SFA 616 901 R2031	1SFA 616 902 R2031	1SFA 616 903 R2031	0.001
R	White	1SFA 616 901 R9009	1SFA 616 902 R9009	1SFA 616 903 R9009	0.001
	Black	1SFA 616 908 R9009	1SFA 616 909 R9009	–	0.001
On	White	1SFA 616 901 R1020	1SFA 616 902 R1020	1SFA 616 903 R1020	0.001
ON	White	1SFA 616 901 R1039	–	1SFA 616 903 R1039	0.001
	Green	1SFA 616 906 R1039	–	–	0.001
	Black	1SFA 616 908 R1039	–	–	0.001
Off	White	1SFA 616 901 R1019	1SFA 616 902 R1019	1SFA 616 903 R1019	0.001
OFF	White	–	1SFA 616 902 R1040	–	0.001
	Red	–	1SFA 616 905 R1040	–	0.001
	Black	–	1SFA 616 909 R1040	–	0.001
Stop	White	1SFA 616 901 R1031	1SFA 616 902 R1031	1SFA 616 903 R1031	0.001
STOP	Red	1SFA 616 904 R1047	1SFA 616 905 R1047	–	0.001
Reset	White	1SFA 616 901 R1025	1SFA 616 902 R1025	1SFA 616 903 R1025	0.001
Ein	White	1SFA 616 901 R6020	1SFA 616 902 R6020	1SFA 616 903 R6020	0.001
Aus	White	1SFA 616 901 R6019	1SFA 616 902 R6019	1SFA 616 903 R6019	0.001
(Without text)	White	1SFA 616 901 R9000	1SFA 616 902 R9000	1SFA 616 903 R9000	0.001
(With customer selected text) ²⁾	White	1SFA 616 901 R9001	1SFA 616 902 R9001	1SFA 616 903 R9001	0.001

¹⁾ Use only white caps for illuminated pushbutton and pilot lights.

²⁾ When ordering, please state text and position:

1 text line (pos. 11) max. 6 characters for pushbuttons. Max. 8 characters for pilot lights.

2 text lines (pos. 21 and pos. 22) max. 5 characters for pushbuttons. Max. 8 characters for pilot lights.

Only initial character is upper case unless other is stated.

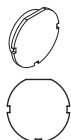
Recommended color combinations of text caps and actuators

Text cap color	Actuator	Lens color
White	Pilot light	All colors
White	Illuminated pushbutton	All colors
Green, Red, Black, White	Non-illuminated pushbutton	Clear

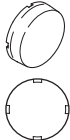
Pilot devices - Accessories

Text caps

Flush button

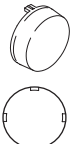


Extended button



Can be turned 90° or 180°

Pilot light

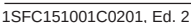


Text caps for illuminated pushbuttons and pilot lights

Text/Symbol	Cap color ¹⁾	Flush button Order Code	Extended button Order Code	Pilot light Order Code	Weight kg
O	White	1SFA 616 901 R9004	1SFA 616 902 R9004	1SFA 616 903 R9004	0.001
	Red	1SFA 616 904 R9004	1SFA 616 905 R9004	-	0.001
	Black	1SFA 616 908 R9004	-	-	0.001
I	White	1SFA 616 901 R9002	1SFA 616 902 R9002	1SFA 616 903 R9002	0.001
	Green	1SFA 616 906 R9002	-	-	0.001
	Black	1SFA 616 908 R9002	-	-	0.001
II	White	1SFA 616 901 R9003	1SFA 616 902 R9003	1SFA 616 903 R9003	0.001
	Green	1SFA 616 906 R9003	-	-	0.001
	Black	1SFA 616 908 R9003	-	-	0.001
III	White	1SFA 616 901 R9028	1SFA 616 902 R9028	-	0.001
	Black	1SFA 616 908 R9028	-	-	0.001
+	White	1SFA 616 901 R9011	1SFA 616 902 R9011	-	0.001
	Green	1SFA 616 906 R9011	-	-	0.001
	Black	1SFA 616 908 R9011	-	-	0.001
-	White	1SFA 616 901 R9012	-	-	0.001
	Red	1SFA 616 904 R9012	-	-	0.001
	Black	1SFA 616 908 R9012	-	-	0.001
	White	1SFA 616 901 R9005	1SFA 616 902 R9005	1SFA 616 903 R9005	0.001
	Black	1SFA 616 908 R9005	-	-	0.001
	White	1SFA 616 901 R9014	1SFA 616 902 R9014	-	0.001
	Black	1SFA 616 908 R9014	-	-	0.001
	White	1SFA 616 901 R9015	1SFA 616 902 R9015	-	0.001
	Black	1SFA 616 908 R9015	-	-	0.001
	White	1SFA 616 901 R9016	1SFA 616 902 R9016	-	0.001
	Black	1SFA 616 908 R9016	-	-	0.001
	White	1SFA 616 901 R9017	1SFA 616 902 R9017	-	0.001
	Black	1SFA 616 908 R9017	-	-	0.001
	White	1SFA 616 901 R9006	1SFA 616 902 R9006	1SFA 616 903 R9006	0.001
	Black	1SFA 616 908 R9006	-	-	0.001
	White	1SFA 616 901 R9018	1SFA 616 902 R9018	-	0.001
	Black	1SFA 616 908 R9018	-	-	0.001
	White	1SFA 616 901 R9019	1SFA 616 902 R9019	-	0.001
	Black	1SFA 616 908 R9019	-	-	0.001
	White	1SFA 616 901 R9020	1SFA 616 902 R9020	-	0.001
	Black	1SFA 616 908 R9020	-	-	0.001
	White	1SFA 616 901 R9021	1SFA 616 902 R9021	-	0.001
	Black	1SFA 616 908 R9021	-	-	0.001
	White	1SFA 616 901 R9022	1SFA 616 902 R9022	-	0.001
	Black	1SFA 616 908 R9022	-	-	0.001
	White	1SFA 616 901 R9023	1SFA 616 902 R9023	-	0.001
	Black	1SFA 616 908 R9023	-	-	0.001
	White	1SFA 616 901 R9024	1SFA 616 902 R9024	-	0.001
	Black	1SFA 616 908 R9024	-	-	0.001
	White	1SFA 616 901 R9025	1SFA 616 902 R9025	-	0.001
	Black	1SFA 616 908 R9025	-	-	0.001
	White	1SFA 616 901 R9026	1SFA 616 902 R9026	-	0.001
	Black	1SFA 616 908 R9026	-	-	0.001
	White	1SFA 616 901 R9027	1SFA 616 902 R9027	-	0.001
	Black	1SFA 616 908 R9027	-	-	0.001

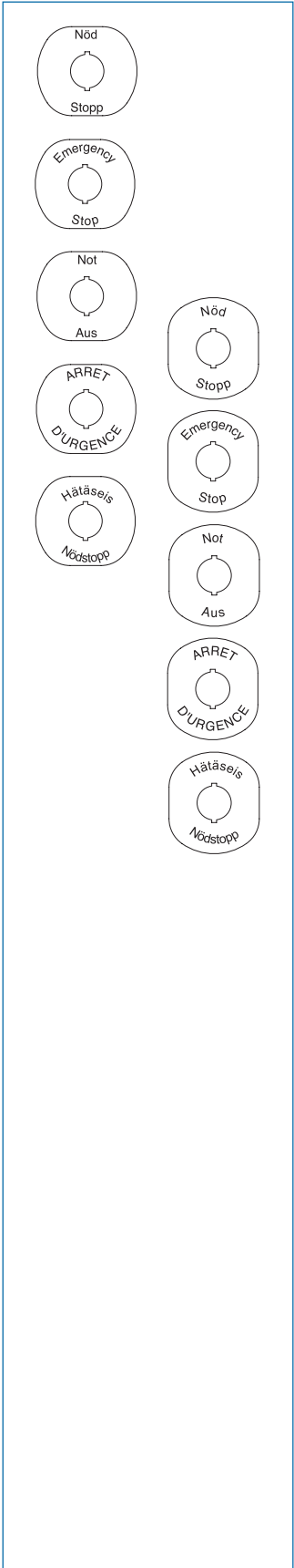
¹⁾ Use only white caps for illuminated pushbutton and pilot lights.

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Pilot devices - Accessories

Special legend plates for plastic enclosures



Emergency stop legend plates for plastic enclosures

Description/Text	Type	Order Code	Weight, kg
For horizontally mounted enclosures			
Of yellow plastic/black text:			
Nöd Stopp	MA6-1025	1SFA 611 930 R1025	0.004
Emergency Stop	MA6-1026	1SFA 611 930 R1026	0.004
Not Aus	MA6-1027	1SFA 611 930 R1027	0.004
ARRET D'URGENCE	MA6-1028	1SFA 611 930 R1028	0.004
Hätäseis	MA6-1029	1SFA 611 930 R1029	0.004
For vertically mounted enclosures			
Of yellow plastic/black text:			
Nöd Stopp	MA6-1025	1SFA 611 930 R1100	0.004
Emergency Stop	MA6-1026	1SFA 611 930 R1101	0.004
Not Aus	MA6-1027	1SFA 611 930 R1102	0.004
ARRET D'URGENCE	MA6-1028	1SFA 611 930 R1103	0.004
Hätäseis	MA6-1029	1SFA 611 930 R1104	0.004
Of yellow plastic/Without text	MA6-1024	1SFA 611 930 R1024	0.004

Notes





Signal Towers K70 and Signal Beacons KSB offers the customer a wide range of signal elements in all voltages and a solution for every signalling field.

- Permanent light
- Blinking light
- Flashing light
- Audible
- LED Permanent light
- LED Blinking light
- LED Rotating light

Signal Towers K70

- Fast mounting of signal elements using bayonet fixing.
- Easy changing of bulbs for each module without tools.
- Flexibility of signal element combination.
- Up to 5 elements possible/up to 10 elements with bracket for 2-sided mounting.
- Flashing light elements can be mounted in each module.
- Up to 5 flashing light elements possible.
- High protection rating optical and audible signal elements with IP 54.
- LED elements for long life

Signal Beacons KSB

- Vandal-proof design withstands every mechanical and natural challenge both indoors and outdoors.
- High protection rating IP 65.
- Cap consists of high impact polycarbonate (up to 20 J).
- Bulb change via inside of control box.

Signal Towers K70

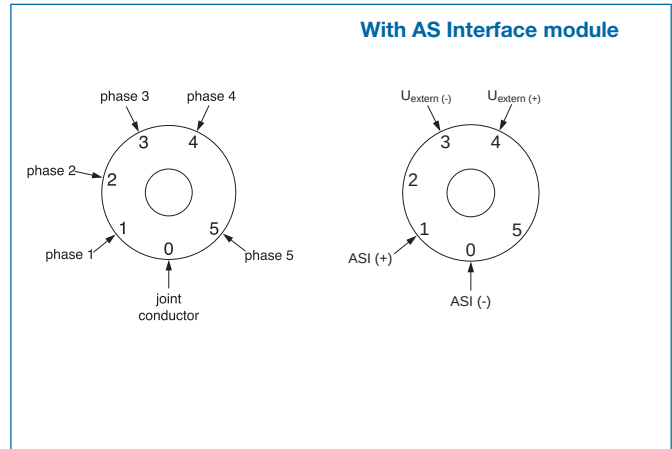
Description

Simple fitting with quick fix system

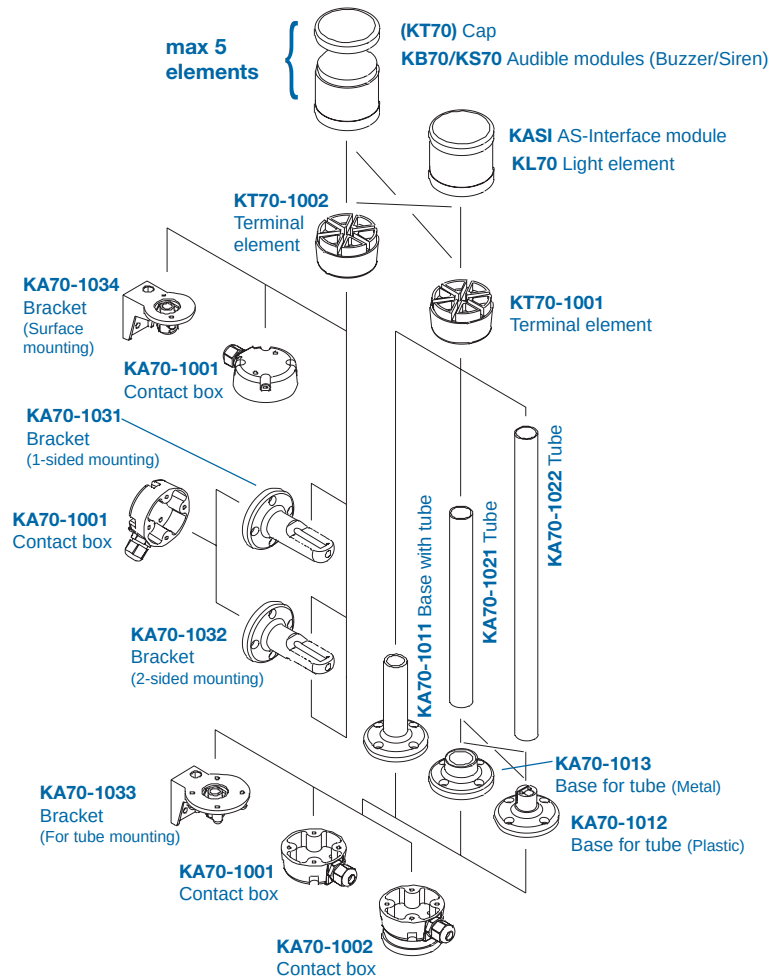
Each K 70 module is equipped with a bayonet fixing with integral contact system. The modules are fastened together by aligning the corresponding white marks then with a gentle twist they are locked into place (see the figures).



Connection plans



Combination possibilities



Signal Towers K70



Optical modules

Description	Type	Order Code	Weight, kg
Light element			
Permanent light , 12-240 V AC/DC. For bulb BA15d. Bulb not included.			
Red	KL70-401R	1SFA 616 070 R4011	0.09
Green	KL70-401G	1SFA 616 070 R4012	0.09
Yellow	KL70-401Y	1SFA 616 070 R4013	0.09
Blue	KL70-401L	1SFA 616 070 R4014	0.09
Clear	KL70-401C	1SFA 616 070 R4018	0.09
Blinking light , 24 V AC/DC. For bulb BA15d. Bulb not included.			
Red	KL70-302R	1SFA 616 070 R3021	0.10
Green	KL70-302G	1SFA 616 070 R3022	0.10
Yellow	KL70-302Y	1SFA 616 070 R3023	0.10
Blue	KL70-302L	1SFA 616 070 R3024	0.10
Clear	KL70-302C	1SFA 616 070 R3028	0.10
Flashing light , 24 V DC. Xenon tube included. Not changeable.			
Red	KL70-203R	1SFA 616 070 R2031	0.12
Green	KL70-203G	1SFA 616 070 R2032	0.12
Yellow	KL70-203Y	1SFA 616 070 R2033	0.12
Blue	KL70-203L	1SFA 616 070 R2034	0.12
Clear	KL70-203C	1SFA 616 070 R2038	0.12
Blinking light , 115 V AC/DC. For bulb BA15d. Bulb not included.			
Red	KL70-312R	1SFA 616 070 R3121	0.10
Green	KL70-312G	1SFA 616 070 R3122	0.10
Yellow	KL70-312Y	1SFA 616 070 R3123	0.10
Blue	KL70-312L	1SFA 616 070 R3124	0.10
Clear	KL70-312C	1SFA 616 070 R3128	0.10
Flashing light , 115 V AC. Xenon tube included. Not changeable.			
Red	KL70-113R	1SFA 616 070 R1131	0.11
Green	KL70-113G	1SFA 616 070 R1132	0.11
Yellow	KL70-113Y	1SFA 616 070 R1133	0.11
Blue	KL70-113L	1SFA 616 070 R1134	0.11
Clear	KL70-113C	1SFA 616 070 R1138	0.11
Blinking light , 230 V AC/DC. For bulb BA15d. Bulb not included.			
Red	KL70-322R	1SFA 616 070 R3221	0.10
Green	KL70-322G	1SFA 616 070 R3222	0.10
Yellow	KL70-322Y	1SFA 616 070 R3223	0.10
Blue	KL70-322L	1SFA 616 070 R3224	0.10
Clear	KL70-322C	1SFA 616 070 R3228	0.10
Flashing light , 230 V AC. Xenon tube included. Not changeable.			
Red	KL70-123R	1SFA 616 070 R1231	0.11
Green	KL70-123G	1SFA 616 070 R1232	0.11
Yellow	KL70-123Y	1SFA 616 070 R1233	0.11
Blue	KL70-123L	1SFA 616 070 R1234	0.11
Clear	KL70-123C	1SFA 616 070 R1238	0.11
LED Permanent light , 24 V AC/DC. LED included. Not changeable.			
Red	KL70-305R	1SFA 616 070 R3051	0.10
Green	KL70-305G	1SFA 616 070 R3052	0.10
Yellow	KL70-305Y	1SFA 616 070 R3053	0.10
Blue	KL70-305L	1SFA 616 070 R3054	0.10
White	KL70-305C	1SFA 616 070 R3058	0.10
LED Blinking light , 24 V AC/DC. LED included. Not changeable.			
Red	KL70-306R	1SFA 616 070 R3061	0.10
Green	KL70-306G	1SFA 616 070 R3062	0.10
Yellow	KL70-306Y	1SFA 616 070 R3063	0.10
Blue	KL70-306L	1SFA 616 070 R3064	0.10
White	KL70-306C	1SFA 616 070 R3068	0.10
LED Rotating light , 24 V AC/DC. LED included. Not changeable.			
Red	KL70-307R	1SFA 616 070 R3071	0.10
Green	KL70-307G	1SFA 616 070 R3072	0.10
Yellow	KL70-307Y	1SFA 616 070 R3073	0.10
Blue	KL70-307L	1SFA 616 070 R3074	0.10
White	KL70-307C	1SFA 616 070 R3078	0.10

Signal Towers K70



KA70-1001



KA70-1002



KA70-1012



KA70-1013

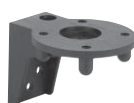
KA70-1021



KA70-1011



KA70-1032



KA70-1033

Description	Type	Order Code	Packing qty	Weight, kg
Bulbs for Signal Tower K70	Bulb Ba 15d, 42 mm, Max 7 W For permanent or blinking light.			
24 V, 5 W, AC/DC		1SFA 616 923 R1028	10	0.009
115 V, 5 W, AC/DC		1SFA 616 923 R1118	10	0.009
230 V, 5 W, AC/DC		1SFA 616 923 R1148	10	0.009

LED bulbs for Signal Tower K70 Ba 15d. For 24 V AC/DC, 40 mA

Color:				
Red	KA4-1021	1SFA 616 924 R1021		0.009
Green	KA4-1022	1SFA 616 924 R1022		0.009
Yellow	KA4-1023	1SFA 616 924 R1023		0.009
Blue	KA4-1024	1SFA 616 924 R1024		0.009
White	KA4-1025	1SFA 616 924 R1025		0.009

Audible modules

Buzzer element

85 dB, continuous or pulsating tone, adjustable

24 V AC/DC	KB70-3001	1SFA 616 071 R3001	0.11
115 V AC/DC	KB70-3101	1SFA 616 071 R3101	0.11
230 V AC	KB70-1201	1SFA 616 071 R1201	0.12

Siren element

Multi function, 8 diff. tones adjustable, volume adjustable 100 dB, 115 V AC

KS70-1104	1SFA 616 073 R1104	0.13
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Multi function, 8 diff. tones adjustable, volume adjustable 100 dB, 230 V AC

KS70-1204	1SFA 616 073 R1204	0.12
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Multi function, 7 diff. tones adjustable, volume adjustable, remote control 100 dB, 24 V DC

KS70-2004	1SFA 616 073 R2004	0.12
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Multi function, 8 diff. tones adjustable, volume adjustable, 100 dB, 24 V AC/DC

KS70-3004	1SFA 616 073 R3004	0.12
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Continuous tone alternating

KS70-2002	1SFA 616 073 R2002	0.15
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Terminal elements

For tube mounting, including cap	KT70-1001	1SFA 616 075 R1001	0.15
For bracket or base, including cap	KT70-1002	1SFA 616 075 R1002	0.15

Special parts

Contact box

Cable exit at side	KA70-1001	1SFA 616 077 R1001	0.07
Magnetic base	KA70-1002	1SFA 616 077 R1002	0.31

Base with tube

D=25 mm L=110 mm	KA70-1011	1SFA 616 077 R1011	0.06
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Base for tube

D=25 mm, Plastic	KA70-1012	1SFA 616 077 R1012	0.03
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D=25 mm, Metal	KA70-1013	1SFA 616 077 R1013	0.32
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Tube, anodized aluminium

D=25 mm L=250 mm	KA70-1021	1SFA 616 077 R1021	0.08
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D=25 mm L=400 mm	KA70-1022	1SFA 616 077 R1022	0.12
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Bracket

1-sided mounting	KA70-1031	1SFA 616 077 R1031	0.07
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2-sided mounting	KA70-1032	1SFA 616 077 R1032	0.07
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For tube mounting	KA70-1033	1SFA 616 077 R1033	0.07
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For surface mounting	KA70-1034	1SFA 616 077 R1034	0.07
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Combinations of accessories see page 70

Signal Beacons KSB



Signal Beacons KSB

Description	Type	Order Code	Packing qty	Weight, kg
Permanent light , 12-240 V AC/DC. For bulb BA15d. Bulb not included.				
Red	KSB-401R	1SFA 616 080 R4011		0.13
Green	KSB-401G	1SFA 616 080 R4012		0.13
Yellow	KSB-401Y	1SFA 616 080 R4013		0.13
Blue	KSB-401L	1SFA 616 080 R4014		0.13
Clear	KSB-401C	1SFA 616 080 R4018		0.13
Flashing light , 24 V DC. Xenon tube included. Not changeable.				
Red	KSB-203R	1SFA 616 080 R2031		0.14
Green	KSB-203G	1SFA 616 080 R2032		0.14
Yellow	KSB-203Y	1SFA 616 080 R2033		0.14
Blue	KSB-203L	1SFA 616 080 R2034		0.14
Clear	KSB-203C	1SFA 616 080 R2038		0.14
Flashing light , 115 V AC. Xenon tube included. Not changeable.				
Red	KSB-113R	1SFA 616 080 R1131		0.14
Green	KSB-113G	1SFA 616 080 R1132		0.14
Yellow	KSB-113Y	1SFA 616 080 R1133		0.14
Blue	KSB-113L	1SFA 616 080 R1134		0.14
Clear	KSB-113C	1SFA 616 080 R1138		0.14
Flashing light , 230 V AC. Xenon tube included. Not changeable.				
Red	KSB-123R	1SFA 616 080 R1231		0.14
Green	KSB-123G	1SFA 616 080 R1232		0.14
Yellow	KSB-123Y	1SFA 616 080 R1233		0.14
Blue	KSB-123L	1SFA 616 080 R1234		0.14
Clear	KSB-123C	1SFA 616 080 R1238		0.14
LED Permanent light , 24 V AC/DC. LED included. Not changeable.				
Red	KSB-305R	1SFA 616 080 R3051		0.14
Green	KSB-305G	1SFA 616 080 R3052		0.14
Yellow	KSB-305Y	1SFA 616 080 R3053		0.14
LED Blinking light , 24 V AC/DC. LED included. Not changeable.				
Red	K SB-306R	1SFA 616 080 R3061		0.14
Green	K SB-306G	1SFA 616 080 R3062		0.14
Yellow	K SB-306Y	1SFA 616 080 R3063		0.14
LED Rotating light , 24 V AC/DC. LED included. Not changeable.				
Red	KSB-307R	1SFA 616 080 R3071		0.14
Green	KSB-307G	1SFA 616 080 R3072		0.14
Yellow	KSB-307Y	1SFA 616 080 R3073		0.14
Special parts				
Anti-twist device	KASB-100	1SFA 616 087 R1000		0.005
Bulbs for Signal Beacons Max 10 W. For permanent light.				
Bulb Ba15d, 52 mm:				
12 V, 7 W, AC/DC		1SFA 616 922 R1018	10	0.011
24 V, 7 W, AC/DC		1SFA 616 922 R1028	10	0.011
115 V, 7 W, AC/DC		1SFA 616 922 R1118	10	0.011
220-260 V, 7-10 W, AC/DC		1SFA 616 922 R1148	10	0.011

Signal Towers K70, Signal Beacons KSB

Technical data

Signal Towers K70

Approvals



Technical specifications

Housing and accessories	Polyamide, high impact, black
Dome	Polycarbonate, transparent
Fixing	Base mounting Tube mounting, for tube ø 25 mm Bracket mounting
Socket	B 15 d, for bulb max. 7W
Connection	Screwable connection up to 2.5 mm ²
Number of modules possible	max. 5
-2-sided bracket	max.10 elements

Degrees of protection

Light elements	IP 54	UL Type 5
Audible elements	IP 54	UL Type 5

Electrical data

Permanent light element	12 - 240 V AC/DC
Bulb socket B 15 d, max 7 W	Bulb not included
Blinking light element	24 V 115 V 230 V AC/DC AC/DC AC/DC Bulb not included
Starting current	< 0.5 A
Flashing light element	24 V 115 V 230 V DC AC AC
Flash frequency	1 Hz 1 Hz 1 Hz
Flash energy	2 Ws 2 Ws 2 Ws
Life duration	4 x 10 ⁶ flashes
Current consumption	125 mA 20 mA 35 mA
reduced for AS-Interface	80 mA
Starting current	< 0.5 A at 24 V
LED Permanent light element	24 V 115 V 230 V AC/DC AC AC
Current consumption	45 mA 25 mA 25 mA
Starting current	< 0.5 A at 24 V
LED Blinking light element	24 V 115 V 230 V AC/DC AC AC
Current consumption	25 mA 25 mA 25 mA
Starting current	< 0.5 A at 24 V
Blink frequency	c. 1 Hz c. 1Hz c. 1 Hz
LED Rotating light element	24 V, AC/DC
Current consumption	70 mA
Starting current	< 0.5 A at 24 V
Rotation frequency	c. 120 r.p.m.
Temperature	
Ambient temperature during operations	-20 to +50 °C

Signal Beacons KSB

Approvals



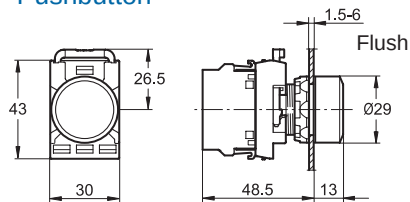
Technical specifications

Housing and accessories	PC/ABS-Blend, high impact, black
Dome	Polycarbonate, transparent
Fixing	Installation mounting for ø 37 mm (PG 29)
Bulb socket	B 15 d, max. 10 W
Bulb change	via rear access with bayonet mechanism (Bulb not included)
Connection	Screwable connection max. 2.5 mm ²
Degrees of protection	IP 65 UL Type 5
Electrical data	
Permanent light element	
Operating voltage	max. 250 V
Bulb socket B 15 d, max 10 W	Bulb not included
LED version:	
Permanent light	24 V, AC/DC
Current consumption	45 mA
Blinking light element	24 V, AC/DC
Current consumption	25 mA
Rotating light element	24 V, AC/DC
Current consumption	70 mA
Starting current	< 0.5 A
Flashing light element	
Operating voltage	24 V 115 V 230 V AC/DC AC AC
Flash frequency	1 Hz 1 Hz 1 Hz
Flash energy	2 Ws 2 Ws 2 Ws
Life duration	4 x 10 ⁶ flashes
Current consumption	125 mA 20 mA 35 mA
Starting current	< 0.5 A < 0.5 A < 0.25 A
Temperature	
Ambient temperature during operations	-20 to +50 °C

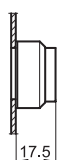
Pilot devices - Modular range

Dimensions

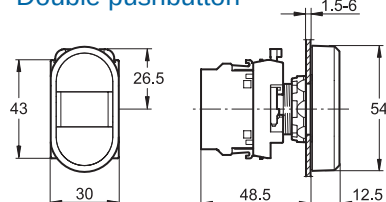
Pushbutton



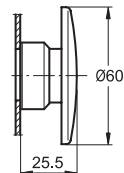
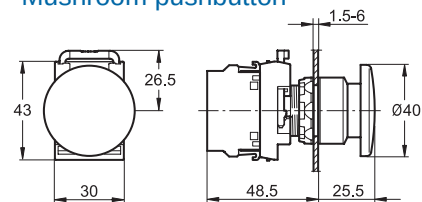
Extended



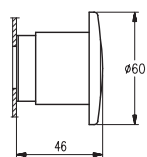
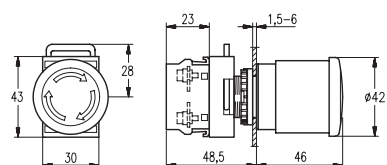
Double pushbutton



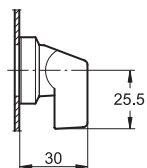
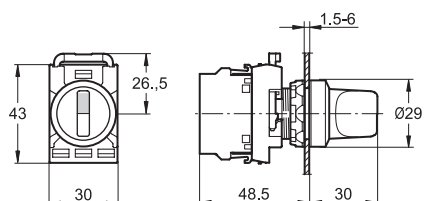
Mushroom pushbutton



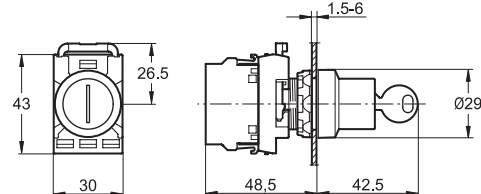
Emergency stop pushbutton



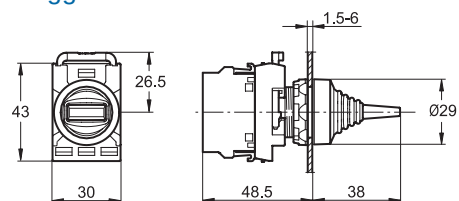
Selector switch



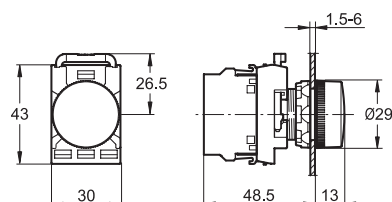
Key-operated selector switch



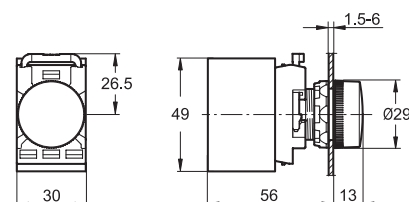
Toggle switch



Pilot light



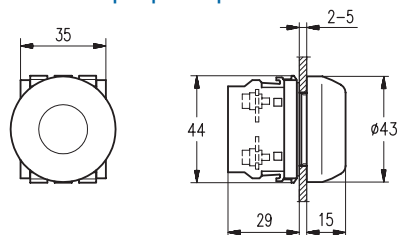
Pilot light with transformer



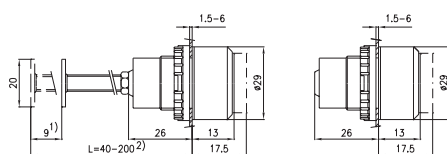
Pilot devices - Miscellaneous

Dimensions and drilling plans

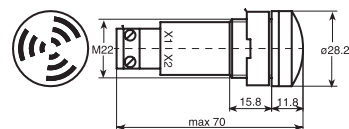
Definite purpose pushbutton



Reset pushbutton

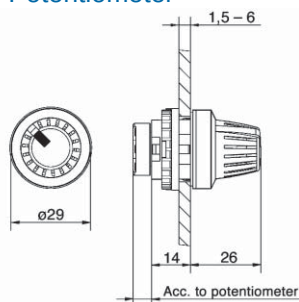


Buzzer

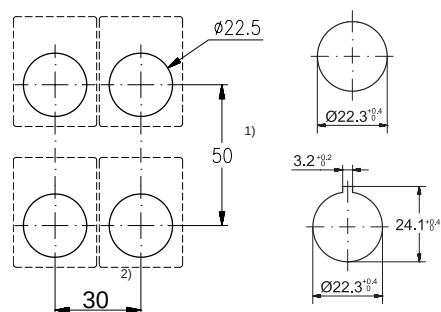


- 1) Length of stroke.
- 2) Can be cut to desired length.

Potentiometer

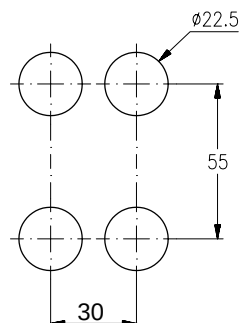


Drilling plans for pushbuttons, switches and pilot lights

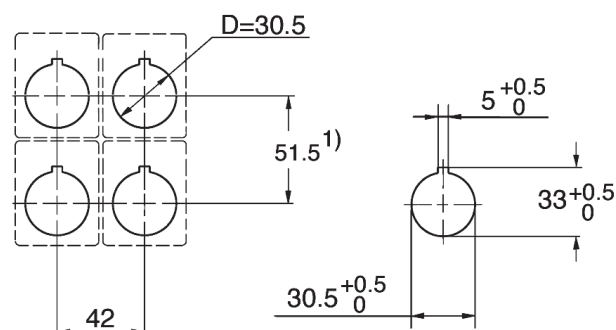


- 1) 55 mm when legend plate H= 44.5 mm is used.
61 mm for mushroom pushbutton with D=60 mm
- 2) 37 mm when legend plate with insert is used,

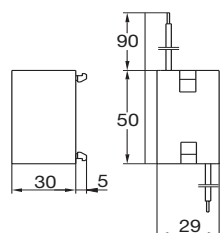
Drilling plan for double pushbutton



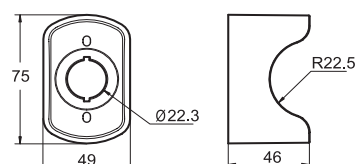
Drilling plan for 30 mm adaptor



Transformer block



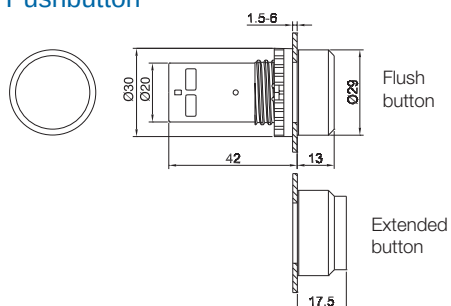
Emergency stop shroud



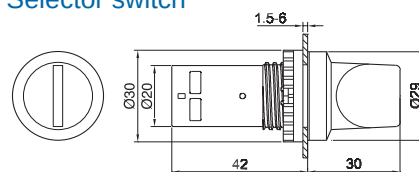
Pilot devices - Compact range

Dimensions

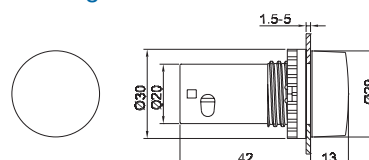
Pushbutton



Selector switch

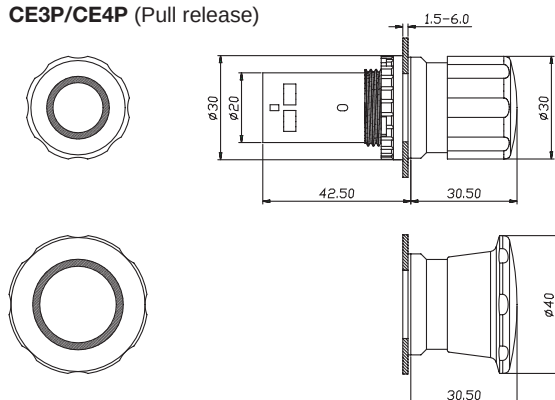


Pilot light

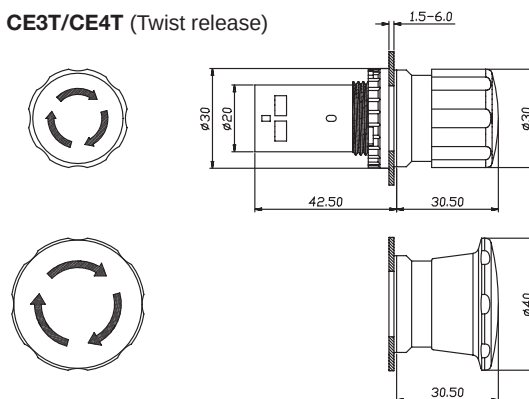


Emergency stop pushbuttons

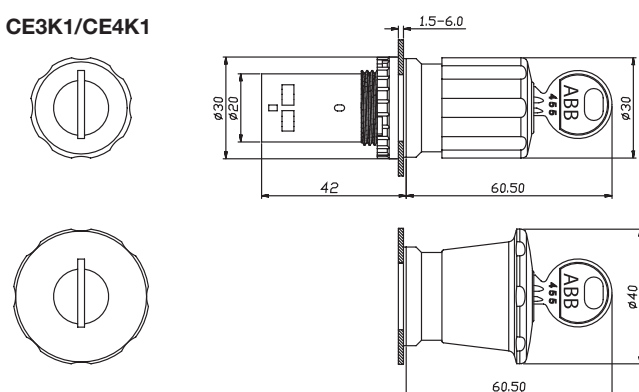
CE3P/CE4P (Pull release)



CE3T/CE4T (Twist release)



CE3K1/CE4K1

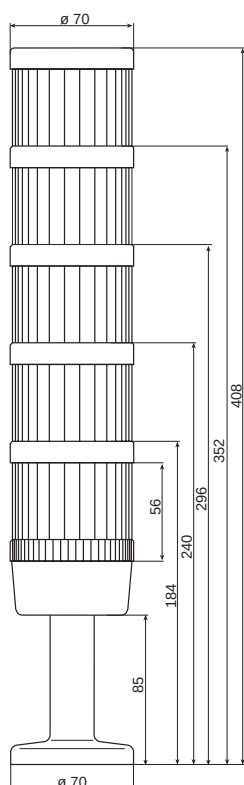


Drilling plans for compact pushbuttons, selector switches, pilot lights and emergency stop pushbuttons
See page 74

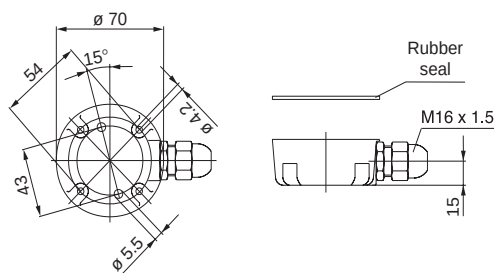
Pilot devices - Signal Towers/Signal Beacons

Dimensions and drilling plans

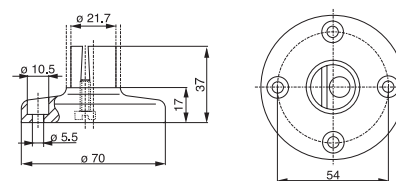
Signal Towers K 70



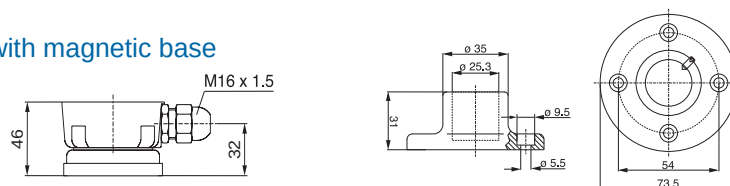
Contact box for cable exit at side



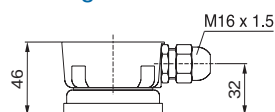
Base for tube, plastic



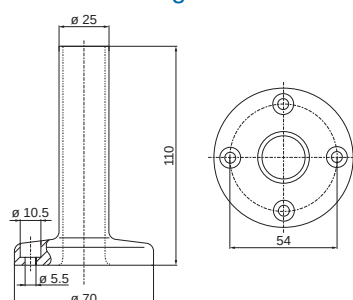
Base for tube, metal



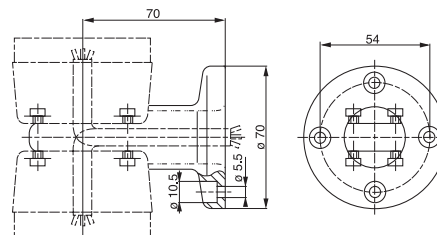
Contact box with magnetic base



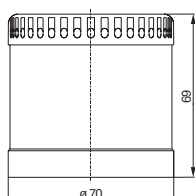
Base with integrated tube



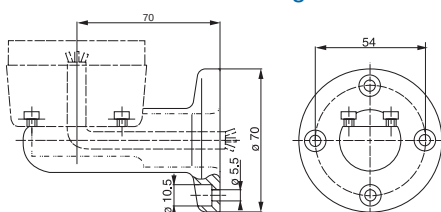
Bracket 2-sided mounting



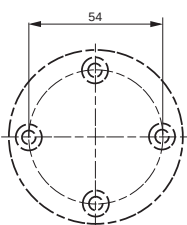
Audible module



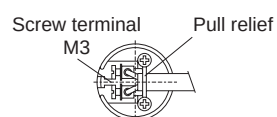
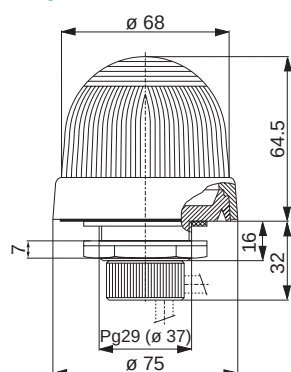
Bracket 1-sided mounting



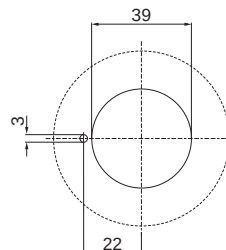
Drilling plan for Signal Towers K 70



Signal Beacons K SB



Drilling plan for Signal Beacons KSB

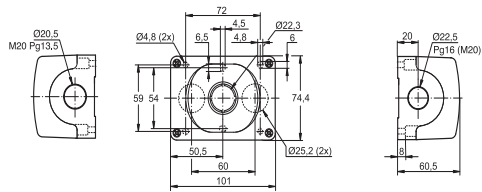


Pilot devices - Enclosures

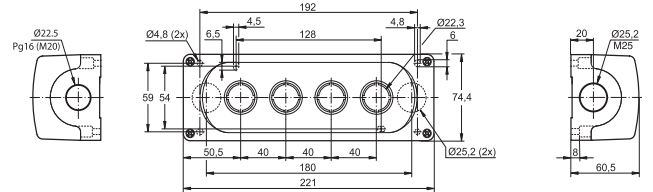
Dimensions

Plastic enclosures

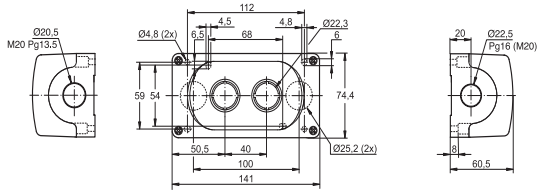
1 seat



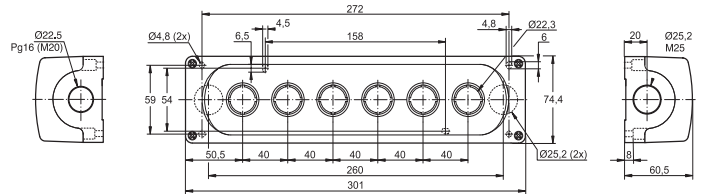
4 seats



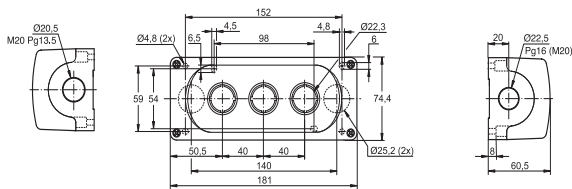
2 seats



6 seats

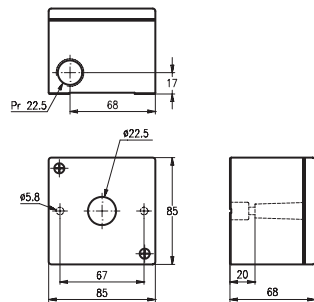


3 seats

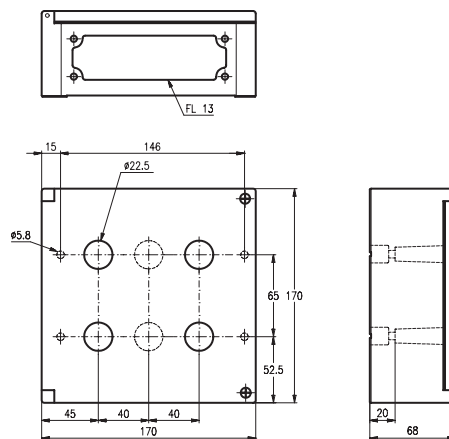


Metallic enclosures

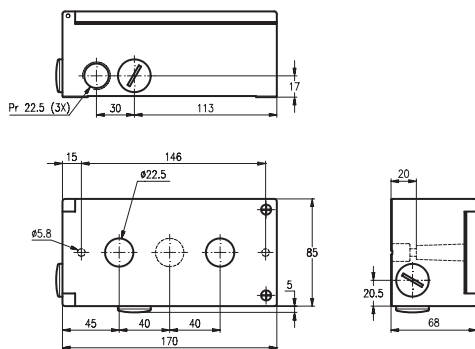
1 seat



4 or 6 seats



2 or 3 seats



Notes



Pilot devices - 22 mm

Color selection

Color selection according to IEC 60 073

IEC 60 073 specifies coding principles for indicators and actuators and gives recommendation regarding the use of colors. An excerpt from the standard is given below. For detailed information, see the standard.

Meaning of colors – General principles

Color		Meaning		
		Safety of persons or environment	Condition of process	State of equipment
RED		Danger	Emergency	Faulty
YELLOW		Warning/caution	Abnormal	Abnormal
GREEN		Safe	Normal	Normal
BLUE		Mandatory significance		
WHITE, GREY, BLACK	  	No specific meaning assigned		

Non-illuminated actuators

Emergency actuators

EMERGENCY-STOP / OFF actuators shall be identified by the color **RED**

STOP / OFF actuators

WHITE, **GREY** and **BLACK** are the preferred colors for STOP / OFF actuators, with the main preference being for **BLACK**. **RED** is also permitted. **GREEN** shall not be used.

START / ON actuators

WHITE, **GREY** and **BLACK** are the preferred colors for START / ON actuators, which cause the closing of switching devices and the equipment to start, with the main preference being for **WHITE**. **GREEN** is also permitted. **RED** shall not be used.

Use of **WHITE** and **BLACK** for specific meanings

Where the colors **WHITE** and **BLACK** are used to distinguish between START / ON and STOP / OFF actuators, then the color **WHITE** shall be used for START / ON actuators and the color **BLACK** shall be used for STOP / OFF actuators.

The same actuators serving for START and STOP or ON and OFF

WHITE, **GREY** and **BLACK** are the preferred colors for actuators which, when actuated several times, act alternately as a START / ON and STOP / OFF actuator.

The colors **YELLOW** and **GREEN** shall not be used. The color **RED** shall be used only in cases where the same actuator, other than a push-button, is used for both EMERGENCYSTOP / OFF and normal operation.

WHITE, **GREY** and **BLACK** are preferred colors for actuators which cause a movement while they are actuated and stop the movement when they are released (such as inching or jogging actuators). **GREEN** is also permitted. **RED** shall not be used.

RESET actuators

RESET actuators (used, for example, with protective relays) shall be **BLUE**, **WHITE**, **GREY** or **BLACK**, except RESET actuators which also act as STOP / OFF actuators. The color of such STOP / OFF actuators shall be in accordance with

STOP / OFF actuators above.

Pilot devices - 22 mm

Explanation of type codes

Explanation of type code

Modular Pilot Devices

Pilot light

Example 1: Type **ML1-100R**

L1 Pilot Light Head

Lens color:
R = Red W = White
G = Green C = Clear
Y = Yellow
L = Blue

Operators

Example 2: Type **MP1-10Y**

P Pushbutton
PD Pushbutton, Double
PK Pushbutton, Key-lockable
PM Pushbutton, Mushroom
PMT Pushbutton, Mushroom, Twist release
PMP Pushbutton, Mushroom, Pull release
2SS 2-pos. Selector Switch
3SS 3-pos. Selector Switch
KB Buzzer
KT Potentiometer
TS Toggle Switch

Button color:
R = Red W = White
G = Green B = Black (non-illuminated only)
Y = Yellow C = Clear
L = Blue U = Grey (non-illuminated only)

Lens color for double pushbuttons:
R = Red
G = Green
Y = Yellow
C = Clear
B = Black (non-illuminated only)

Example 3: Type **M2SSK1-101**

2SSK 2-pos. Selector Switch, Key-lockable
3SSK 3-pos. Selector Switch, Key-lockable
PK Pushbutton, Key-lockable

Key code :
1 = 71
2 = 72
3 = 73

Buzzer, contact blocks, lamp block

Example 4: Type **MCBH-10**

B Buzzer
CB Contact Block
CBH Contact Block with Holder
LB Lamp Block

Contact blocks:
10 1 NO
01 1 NC
11 1 NO +1 NC
02 2 NC
20 2 NO

M= "Generation" M, Modular range

Compact Pilot Devices

Example 5: Type **CL-100R**

Example 6: Type **C2SS1-10R-10**

E Emergency stop
L Pilot Light
P Pushbutton
2SS 2-pos. Selector Switch
3SS 3-pos. Selector Switch

**Button color/
Lens colour for compact pilot light and pushbuttons**
R = Red W = White
G = Green B = Black
Y = Yellow C = Clear (pilot light only)
L = Blue U = Grey

Button color for compact selector switch
R = Red
B = Black
U = Grey

C= Compact Range

Pilot devices - 22 mm

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230 ... 232	51	922	73	550, 552	59 - 61
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