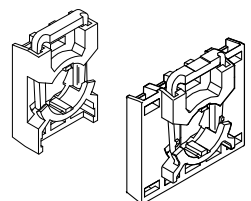
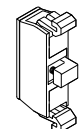
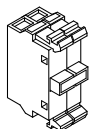
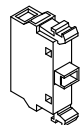
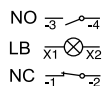
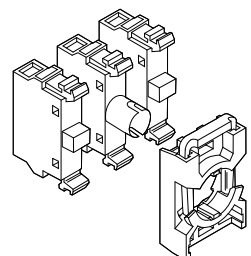
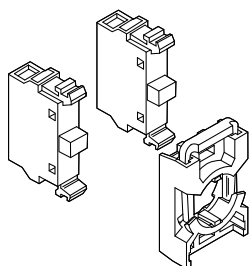


Accessories

Pilot Devices
Modular Range
22mm



Contact block holders

Contact blocks and lamp blocks with holder for front mounting

Max. number of blocks in holder	Included blocks	Catalog No.	Ref. Code	List Price
For non-illuminated operators				
3	1 NC	MCBH-01	1SFA 611 605 R1110	\$ 10.00
3	1 NO	MCBH-10	1SFA 611 605 R1101	10.00
3	2 NC	MCBH-02	1SFA 611 605 R1120	18.00
3	2 NO	MCBH-20	1SFA 611 605 R1102	18.00
3	3 NC	MCBH-03	1SFA 611 605 R1130	26.00
3	3 NO	MCBH-30	1SFA 611 605 R1103	26.00
3	1 NO + 1 NC	MCBH-11	1SFA 611 605 R1111	18.00
3	1 NO + 2 NC	MCBH-12	1SFA 611 605 R1121	26.00
3	2 NO + 1 NC	MCBH-21	1SFA 611 605 R1112	26.00

For illuminated operators

3	1 LB	MCBH-001	—	19.50
3	1 NC + 1 LB	MCBH-011	1SFA 611 605 R1210	27.50
3	1 NO + 1 LB	MCBH-101	1SFA 611 605 R1201	27.50
3	1 NO + 1 NC + 1 LB	MCBH-111	1SFA 611 605 R1211	35.50
3	2 NC + 1 LB	MCBH-021	1SFA 611 605 R1220	35.50
3	2 NO + 1 LB	MCBH-201	1SFA 611 605 R1202	35.50

Single contact blocks for front mounting

Contacts	Catalog No.	Ref. Code	List Price
1 NO	MCB-10	1SFA 611 610 R1001	\$ 8.00
1 NC	MCB-01	1SFA 611 610 R1010	8.00
1 NO with gold plated contacts	MCB-10G	1SFA 611 610 R1101	16.00
1 NC with gold plated contacts	MCB-01G	1SFA 611 610 R1110	16.00

Double contact block for front mounting

To be used together with MCBH5-00 when contact blocks in position 4- and 5- are needed. Also when using MCBH-00 together with selector switch and contact block in position 3- is needed

Included blocks	Catalog No.	Ref. Code	List Price
2 NO	MCB-20	1SFA 611 610 R1002	\$ 16.00
2 NC	MCB-02	1SFA 611 610 R1020	
1 NO + 1 NC	MCB-11	1SFA 611 610 R1011	

Micro contact blocks for front mounting

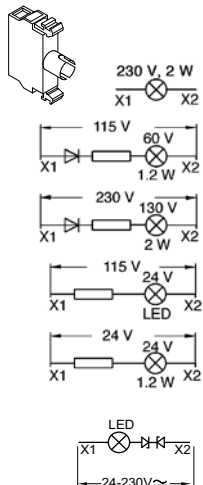
Contacts	Catalog No.	Ref. Code	List Price
1 NO	MCBL-10	1SFA611612R1010	\$ 12
1 NC	MCBL-01	1SFA611612R1001	

Holders

Description	Catalog No.	Ref. Code	List Price
Holders for front mounting For three blocks	MCBH-00	1SFA 611 605 R1100	\$ 2.00
For five blocks	MCBH5-00	1SFA 611 601 R1100	4.00

Accessories

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Single lamp blocks for front mounting, Ba 9s base

Description	Catalog No.	Ref. Code	List Price
For max. 2 W, 230 V AC and DC filament bulb or LED	MLB-1	1SFA 611 620 R1001	\$ 17.50
115 V AC supply voltage for 60 V filament bulb max. 1.2 W.	MLB-2	1SFA 611 620 R1002	21.50
230 V AC supply voltage for 130 V filament bulb max. 2 W	MLB-3	1SFA 611 620 R1003	21.50
115 V AC and DC supply voltage For 24 V LED	MLB-4	1SFA 611 620 R1004	21.50
24 V AC and DC supply voltage with resistor. Intended for electronic circuits. The resistor limits the making current and protects against disturbances in the electronic circuit. For 24 V filament bulb	MLB-5	1SFA 611 620 R1005	21.50
With Zener diode, max 230V AC/DC, LEDs. Used in applications where voltage interference is a problem (i.e., the LED is visibly lit although control voltage is off.	MLB-8	1SFA 611 620 R1008	19.00

Transformer blocks

For 6 or 24 V filament bulb and 24 V LED. Rated power 1.5 W.

Primary voltage	Secondary voltage	Bulb Suffix LED Filament	Catalog No.	Ref. Code	List Price
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With lamp holder for pilot lights, front mounting, Ba 9s base

Intended to supply a 1.2 W filament bulb.

110 - 127 V AC	6 V AC	-	T1	KTR1-1001	1SFA 616 950 R1001	\$ 35.00
220 - 250 V AC	6 V AC	-	T2	KTR1-1002	1SFA 616 950 R1002	
380 - 420 V AC	6 V AC	-	T3	KTR1-1003	1SFA 616 950 R1003	
440 - 480 V AC	6 V AC	-	T4	KTR1-1004	1SFA 616 950 R1004	
500 - 600 V AC	6 V AC	-	T5	KTR1-1005	1SFA 616 950 R1005	
110 - 127 V AC	24 V AC ①	TL1	T6	KTR1-1011	1SFA 616 950 R1011	
220 - 250 V AC	24 V AC ①	TL2	T7	KTR1-1012	1SFA 616 950 R1012	
380 - 420 V AC	24 V AC ①	TL3	T8	KTR1-1013	1SFA 616 950 R1013	
440 - 480 V AC	24 V AC ①	TL4	T9	KTR1-1014	1SFA 616 950 R1014	

For illuminated operators ②

Intended to supply a 1.2 W filament bulb mounted in lamp block MLB-1 (1SFA 611 620 R1001) only.

110 - 127V AC	6 V AC	-	T1	KTR1-2001	1SFA 616 950 R2001	35.00
220 - 250 V AC	6 V AC	-	T2	KTR1-2002	1SFA 616 950 R2002	
380 - 420 V AC	6 V AC	-	T3	KTR1-2003	1SFA 616 950 R2003	
440 - 480 V AC	6 V AC	-	T4	KTR1-2004	1SFA 616 950 R2004	
500 - 600 V AC	6 V AC	-	T5	KTR1-2005	1SFA 616 950 R2005	
110 - 127 V AC	24 V AC ①	TL1	T6	KTR1-2011	1SFA 616 950 R2011	
220 - 250 V AC	24 V AC ①	TL2	T7	KTR1-2012	1SFA 616 950 R2012	
380 - 420 V AC	24 V AC ①	TL3	T8	KTR1-2013	1SFA 616 950 R2013	
440 - 480 V AC	24 V AC ①	TL4	T9	KTR1-2014	1SFA 616 950 R2014	

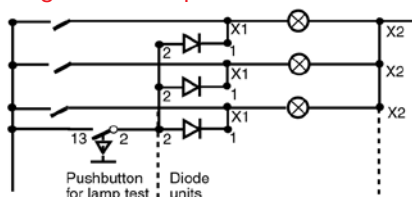
Diode blocks

To be used if several lamps are to be connected to a common lamp-test pushbutton.

A diode must be connected in series with each lamp. The diode block snaps onto the lamp block or is placed at the side.

Description	Catalog No.	Ref. Code	List Price
Diode block	MDB-1001	1SFA 611 630 R1001	\$ 14.00

Diagram for lamp test with three diode block

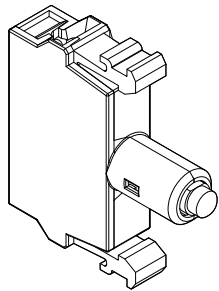


① Can be used with LED bulb

② To be used with with directly supplied lamp blocks only.

Accessories

Pilot Devices
Modular Range
22mm



Front mounting integrated LED

Lamp block with integrated LED

With one diode chip integrated into lamp block. Choose the same color for the LED and the lamp cap or else use a clear lamp cap.

Description	Catalog No.	Ref. Code	List Price	
12V DC rated voltage				
Red	MLBL-00R	1SFA611621R1001	\$ 25.50	
Green	MLBL-00G	1SFA611621R1002		
Yellow	MLBL-00Y	1SFA611621R1003		
Blue	MLBL-00L	1SFA611621R1004		
White	MLBL-00W	1SFA611621R1005		
24V AC/DC rated voltage				
Red	MLBL-01R	1SFA611621R1011		
Green	MLBL-01G	1SFA611621R1012		
Yellow	MLBL-01Y	1SFA611621R1013		
Blue	MLBL-01L	1SFA611621R1014		
White	MLBL-01W	1SFA611621R1015		
48V AC/DC rated voltage				
Red	MLBL-02R	1SFA611621R1021		
Green	MLBL-02G	1SFA611621R1022		
Yellow	MLBL-02Y	1SFA611621R1023		
Blue	MLBL-02L	1SFA611621R1024		
White	MLBL-02W	1SFA611621R1025		
110-130V AC rated voltage				
Red	MLBL-04R	1SFA611621R1041		
Green	MLBL-04G	1SFA611621R1042		
Yellow	MLBL-04Y	1SFA611621R1043		
Blue	MLBL-04L	1SFA611621R1044		
White	MLBL-04W	1SFA611621R1045		
110-130V DC rated voltage				
Red	MLBL-05R	1SFA611621R1051		
Green	MLBL-05G	1SFA611621R1052		
Yellow	MLBL-05Y	1SFA611621R1053		
Blue	MLBL-05L	1SFA611621R1054		
White	MLBL-05W	1SFA611621R1055		
220V DC rated voltage				
Red	MLBL-06R	1SFA611621R1061		
Green	MLBL-06G	1SFA611621R1062		
Yellow	MLBL-06Y	1SFA611621R1063		
Blue	MLBL-06L	1SFA611621R1064		
White	MLBL-06W	1SFA611621R1065		
230V DC rated voltage				
Red	MLBL-07R	1SFA611621R1071		
Green	MLBL-07G	1SFA611621R1072		
Yellow	MLBL-07Y	1SFA611621R1073		
Blue	MLBL-07L	1SFA611621R1074		
White	MLBL-07W	1SFA611621R1075		

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Accessories



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 (-) and the bottom contact to anode (+).

Description				Catalog No.	Ref. Code	List Price
Color	Rated current mA	Wave-length nm	Luminance mcd			
Rated voltage 12 V, DC Service life >50 000 h						
Red	15	630	250	KA2-2011	1SFA 616 921 R2011	\$ 21.00
Green	15	525	1000	KA2-2012	1SFA 616 921 R2012	
Yellow	15	592	250	KA2-2013	1SFA 616 921 R2013	
Blue	15	470	450	KA2-2014	1SFA 616 921 R2014	
White	15	x=0.31 y=0.32	600	KA2-2015	1SFA 616 921 R2015	
Rated voltage 24 V, (AC)/DC Ⓞ Service life >50 000 h						
Red	15	630	250	KA2-2021	1SFA 616 921 R2021	15.00
Green	15	525	800	KA2-2022	1SFA 616 921 R2022	
Yellow	15	592	250	KA2-2023	1SFA 616 921 R2023	
Blue	15	470	400	KA2-2024	1SFA 616 921 R2024	
White	15	x=0.31 y=0.32	500	KA2-2025	1SFA 616 921 R2025	
Rated voltage 36 V, (AC)/DC Ⓞ Service life >50 000 h						
Red	12	630	250	KA2-2031	1SFA 616 921 R2031	21.00
Green	12	525	800	KA2-2032	1SFA 616 921 R2032	
Yellow	12	592	250	KA2-2033	1SFA 616 921 R2033	
Blue	12	470	400	KA2-2034	1SFA 616 921 R2034	
White	12	x=0.31 y=0.32	500	KA2-2035	1SFA 616 921 R2035	
Rated voltage 48 V, (AC)/DC Ⓞ Service life >50 000 h						
Red	12	630	200	KA2-2041	1SFA 616 921 R2041	15.00
Green	12	525	1700	KA2-2042	1SFA 616 921 R2042	
Yellow	12	592	240	KA2-2043	1SFA 616 921 R2043	
Blue	12	470	720	KA2-2044	1SFA 616 921 R2044	
White	12	x=0.31 y=0.32	1200	KA2-2045	1SFA 616 921 R2045	
Rated voltage 60 V, (AC)/DC Ⓞ Service life >50 000 h						
Red	10	630	160	KA2-2051	1SFA 616 921 R2051	21.00
Green	10	525	1400	KA2-2052	1SFA 616 921 R2052	
Yellow	10	592	200	KA2-2053	1SFA 616 921 R2053	
Blue	10	470	600	KA2-2054	1SFA 616 921 R2054	
White	10	x=0.31 y=0.32	1000	KA2-2055	1SFA 616 921 R2055	
Rated voltage 110-130 V, AC Ⓞ Service life 25 000 h						
Red	4-6	630	60-100	KA2-2131	1SFA 616 921 R2131	15.00
Green	4-6	525	500-850	KA2-2132	1SFA 616 921 R2132	
Yellow	4-6	592	70-120	KA2-2133	1SFA 616 921 R2133	
Blue	4-6	470	220-350	KA2-2134	1SFA 616 921 R2134	
White	4-6	x=0.31 y=0.32	350-600	KA2-2135	1SFA 616 921 R2135	
Rated voltage 110-130 V, AC/DC Ⓞ Service life 25 000 h						
Red	4-6	630	60-100	KA2-2141	1SFA 616 921 R2141	21.00
Green	4-6	525	500-850	KA2-2142	1SFA 616 921 R2142	
Yellow	4-6	592	70-120	KA2-2143	1SFA 616 921 R2143	
Blue	4-6	470	220-350	KA2-2144	1SFA 616 921 R2144	
White	4-6	x=0.31 y=0.32	350-600	KA2-2145	1SFA 616 921 R2145	
Rated voltage 230 V, AC Ⓞ Service life 25 000 h						
Red	4	630	60	KA2-2221	1SFA 616 921 R2221	21.00
Green	4	525	500	KA2-2222	1SFA 616 921 R2222	
Yellow	4	592	70	KA2-2223	1SFA 616 921 R2223	
Blue	4	470	220	KA2-2224	1SFA 616 921 R2224	
White	4	x=0.31 y=0.32	350	KA2-2225	1SFA 616 921 R2225	
Rated voltage 230 V, AC/DC Ⓞ Service life 25 000 h						
Red	4	630	60	KA2-2231	1SFA 616 921 R2221	21.00
Green	4	525	500	KA2-2232	1SFA 616 921 R2222	
Yellow	4	592	70	KA2-2233	1SFA 616 921 R2223	
Blue	4	470	220	KA2-2234	1SFA 616 921 R2224	
White	4	x=0.31 y=0.32	350	KA2-2235	1SFA 616 921 R2225	

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

Accessories

Pilot Devices
Modular Range
22mm



Filament bulb

Filament bulbs

Ba 9s base Catalog No. of current: AC/DC. A lamp changing tool is required for changing bulb.

Description	Catalog No.	Ref. Code	List Price				
Rated voltage V	Rated current mA	Rated output W	Service life h	Lumiance mcd			
6	200	1.2	10 000	350	5911 086-11	5911 086-11	\$ 6.00
12	100	1.2	10 000	230	5911 086-12	5911 086-12	
24	50	1.2	10 000	280	5911 086-13	5911 086-13	
30	40	1.2	10 000	250	5911 086-4	5911 086-4	
48	42	2	6 000	500	5911 086-5	5911 086-5	
60	20	1.2	5 000	190	5911 086-14	5911 086-14	
110	18	2	7 500	250	5911 086-7	5911 086-7	
130	15	2	7 500	120	5911 086-15	5911 086-15	



Flashing LED

Flashing LED

A lamp changing tool is required for changing bulb.

Choose the same color for the LED and the lamp cap or use a clear lamp cap.

The lamp base has to be connected to cathode (-) and the bottom contact to anode (+).

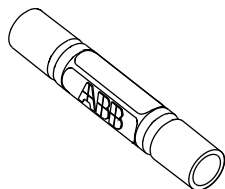
Description	Catalog No.	Ref. Code	List Price
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**Rated voltage 24 V,
rated current 25 mA, DC**

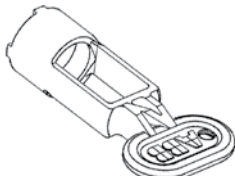
Color	Wave length nm	Service life hours	Catalog No.	Ref. Code	List Price
Red	630	50 000	4950 512-1	4950 512-1	\$ 20.00
Green	565	50 000	4950 512-2	4950 512-2	44.25
Yellow	585	50 000	4950 512-3	4950 512-3	20.00

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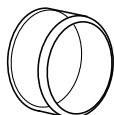
Accessories



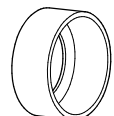
Lamp changing tool



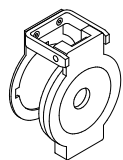
Mounting tool



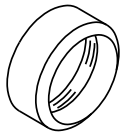
Silicone boot



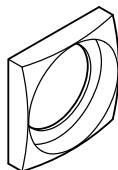
Protective ring



Protective cover



Bezel



Square bezel

Lamp changing tool

Description	Catalog No.	Ref. Code	List Price
For LEDs and for bulbs	KA1-8072	1SFA 616 920 R8072	\$ 10.00

Mounting tool

Description	Catalog No.	Ref. Code	List Price
Used for tightening the sleeve	KA1-8015	1SFA 611 920 R8015	\$ 10.00

Silicone boot

Of transparent, heat and cold resistant rubber. Does not harden at low temperature. Gives IP 67 degree of protection. When membrane is used, remove the gasket.

For operator with	Catalog No.	Ref. Code	List Price
Flush button	KA1-8052	1SFA 616 920 R8052	\$ 8.00
Extended button	KA1-8002	1SFA 616 920 R8002	
Double pushbutton	MA1-8126	—	

Emergency stop shroud

For 40 mm Emergency Stop Pushbuttons; *NOT for use with plastic enclosures.*

Color	Catalog No.	Ref. Code	List Price
To prevent inadvertant operation. Yellow	KA1-8053	1SFA 616 920 R8053	\$ 16.00

Protective ring

For flush and extended buttons

Description	Catalog No.	Ref. Code	List Price
To prevent inadvertant operation. Not together with legend plate holder.	SK 615 512-1	SK 615 512-1	\$ 4.00

Protective cover

Description	Catalog No.	Ref. Code	List Price
For flush button. To prevent inadvertant operation. Not together with legend plate holder.	KA1-8010	1SFA 616 920 R8010	\$ 15.00

Bezel (Packing unit 10 pieces)

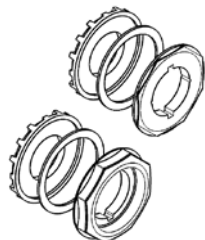
Description	Catalog No.	Ref. Code	List Price
For pushbutton			
Grey, plastic	KA1-8079	1SFA 616 920 R8079	\$ 1.00
Black, plastic	KA1-8022	1SFA 616 920 R8022	1.00
Metal	KA1-8021	1SFA 616 920 R8021	2.50
For selector switch			
Grey, plastic	KA1-8077	1SFA 616 920 R8077	1.00
Black, plastic	KA1-8080	1SFA 616 920 R8080	1.00
Metal	KA1-8024	1SFA 616 920 R8024	2.50

Square bezel

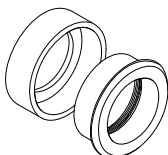
Black, plastic (Packing unit 10 pieces)	SK 616 016-2	SK 616 016-2	2.00
Grey, plastic (Packing unit 10 pieces)	KA1-8124	1SFA 611 920 R8124	

Accessories

Pilot Devices
Modular Range
22mm



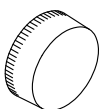
30mm adaptors



Flush-mount adaptors



Extra key



Pilot light lens



Flush buttons for pushbuttons



Extended buttons for pushbuttons

30 mm adaptors

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

Description	Catalog No.	Ref. Code	List Price
For use with emergency stop pushbuttons			
Black plastic	KA1-8027	1SFA 616 920 R8027	\$ 8.00
Metal	KA1-8028	1SFA 616 920 R8028	10.00
For use with pushbuttons, selector switches, pilot lights, potentiometers and buzzers			
Black plastic	KA1-8029	1SFA 616 920 R8029	8.00
Metal	KA1-8030	1SFA 616 920 R8030	10.00

Adaptors

Description	Catalog No.	Ref. Code	List Price
For flush mounted pushbuttons	KA1-8073	1SFA 616 920 R8073	\$ 15.00
For flush mounted selector switches	KA1-8074	1SFA 616 920 R8074	

Extra key (packing unit, 2 pcs)

Description	Catalog No.	Ref. Code	List Price
Ronis 455 (key code 71)	SK 616 021-71	SK 616 021-71	\$ 10.00
Ronis 421 (key code 72)	SK 616 021-72	SK 616 021-72	
Ronis 3433-E (key code 73)	SK 616 021-73	SK 616 021-73	

Lenses for pilot lights (Packing unit 10 pieces)

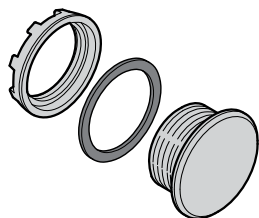
Description/Color	Catalog No.	Ref. Code	List Price
Red	KA1-8031	1SFA 616 920 R8031	\$ 2.50
Green	KA1-8032	1SFA 616 920 R8032	
Yellow	KA1-8033	1SFA 616 920 R8033	
Blue	KA1-8034	1SFA 616 920 R8034	
White	KA1-8035	1SFA 616 920 R8035	
Clear	KA1-8038	1SFA 616 920 R8038	
Fresnel light diffusing lens ①	KA1-8005	1SFA 616 920 R8005	3.00

Buttons for pushbuttons (Packing unit 10 pieces)

Description	Color	Catalog No.	Ref. Code	List Price
Flush, opaque	Red	KA1-8081	1SFA 616 920 R8081	
	Green	KA1-8082	1SFA 616 920 R8082	
	Yellow	KA1-8083	1SFA 616 920 R8083	
	Blue	KA1-8084	1SFA 616 920 R8084	
	White	KA1-8085	1SFA 616 920 R8085	
	Black	KA1-8086	1SFA 616 920 R8086	
	Grey	KA1-8087	1SFA 616 920 R8087	
	Clear	KA1-8088	1SFA 616 920 R8088	
Extended, opaque	Red	KA1-8091	1SFA 616 920 R8091	\$ 1.50
	Green	KA1-8092	1SFA 616 920 R8092	
	Yellow	KA1-8093	1SFA 616 920 R8093	
	Blue	KA1-8094	1SFA 616 920 R8094	
	White	KA1-8095	1SFA 616 920 R8095	
	Black	KA1-8096	1SFA 616 920 R8096	
	Grey	KA1-8097	1SFA 616 920 R8097	
	Clear	KA1-8098	1SFA 616 920 R8098	
Flush, transparent	Red	KA1-8101	1SFA 616 920 R8101	
	Green	KA1-8102	1SFA 616 920 R8102	
	Yellow	KA1-8103	1SFA 616 920 R8103	
	Blue	KA1-8104	1SFA 616 920 R8104	
	White	KA1-8105	1SFA 616 920 R8105	
	Clear	KA1-8108	1SFA 616 920 R8108	
Extended, transparent	Red	KA1-8111	1SFA 616 920 R8111	
	Green	KA1-8112	1SFA 616 920 R8112	
	Yellow	KA1-8113	1SFA 616 920 R8113	
	Blue	KA1-8114	1SFA 616 920 R8114	
	White	KA1-8115	1SFA 616 920 R8115	
	Clear	KA1-8118	1SFA 616 920 R8118	

① Light diffusing insert is placed between the bulb and the lens.

Accessories



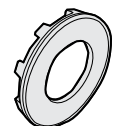
Blanking plug



Gasket



Locking nut, 22mm



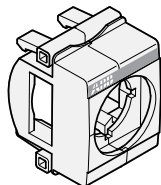
Locking nut, 30mm



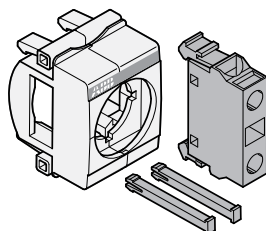
Selector switch lock



Selector switch guard



DIN rail adaptor



DIN Rail adaptor with accessories

Blanking plug (22mm)

Description	Catalog No.	Reference Code	List Price
Grey plastic	MA1-8129	1SFA 611 920 R8129	\$ 5.80
Black plastic	MA1-8130	1SFA 611 920 R8130	5.80

Blanking plug (30mm)

Description	Catalog No.	Reference Code	List Price
Black plastic	MA1-8133	1SFA 611 920 R8133	7.30

Spare gasket, 22mm

Description	Catalog No.	List Price
Gasket, 22mm	2152 0357-1	\$ 1.00

Locking nut – for mounting 22mm pilot devices

Description	Catalog No.	List Price	
Grey plastic, 22mm	MA1-8019	1SFA 611 920 R8019	\$ 2.00

Locking nut – for mounting 30mm adaptor with 22mm device

Description	Catalog No.	List Price	
Grey plastic, 30mm	MA1-8134	1SFA 611 920 R8134	\$ 2.50

Selector switch lock

Description	Catalog No.	List Price
Selector switch lock	CBK-XSWL	\$ 35.00

Selector switch guard

Description	Catalog No.	List Price
Selector switch guard	CBK-XSWG	\$ 8.00

DIN rail adaptor

For 35mm DIN rail. To be used with rear-mounting contact blocks. Accessories kit includes 1 dummy block and 2 connector pins. Must be used when DIN-rail mounting pilot devices with only 1 contact block.

Description	Catalog No.	Reference Code	List Price
DIN rail adaptor	MA1-8131	1SFA611920R8131	\$ 18.00
DIN rail adaptor, with accessories	MA1-8001	1SFA611920R8001	20.00
Extra dummy block, rear mount	MDB-2	1SFA611630R1002	4.00
Extra pin set	MXP3	1SFA616920R8007	3.50