

22mm Assembled Pilot Devices

for 22mm & 30mm applications



ABB – A sure hit in pilot devices

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, including IEC, EN, UL, CSA, CCC, etc.



Pilot devices

ABB offers a complete range of pilot devices:

- 22mm pushbuttons
- emergency-stop and mushroom pushbuttons
- toggle, selector, and key-operated switches
- double pushbuttons
- pilot lights
- signaling units

These are complemented with enclosures and a wide range of accessories. The main advantage is the durability that is provided for all types of industrial environments, indoor as well as outdoor.

The ABB Pilot Device family is divided into two ranges: Modular and Compact. The Modular range includes operators, holders, contact blocks, and accessories that offer high flexibility with different combinations of components.

Modular range pilot devices

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

The main benefits of the Modular pilot devices are:

- They can be used in tough environments
- They have large text and push areas
- Up to six contact blocks available on one actuator
- Easy to mount and to wire
- 22mm products can be modified to fit 30mm applications by combining the device with a 30mm adaptor

Aesthetic, functional, and flexible

The pilot devices have an aesthetic and functional design that withstands even the toughest environment. No additional protective boot is needed.

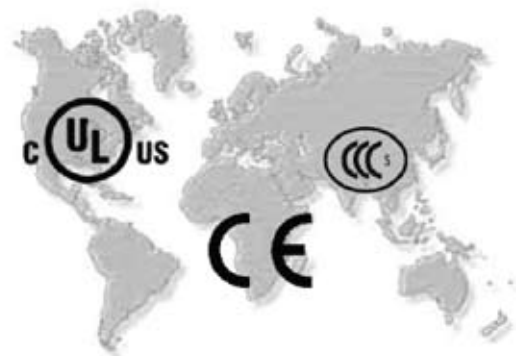
The contacts provide a wiping action. The tips of the contacts rub against each other each time the contacts close. This forces dust and oxide to the side, providing a highly reliable electrical circuit. The NC block has a positive opening for high performance in safety circuits.

Quick and easy installation

- Spring-loaded tabs ensure that actuators and legend plates are in the correct positions
- The same actuator can be used in both 22mm notched or round holes
- Contact/lamp blocks, holders, and devices utilize a "snap together" design, eliminating the need for extra hardware or tools

Worldwide availability

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



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General Construction

- Snap-on feature reduces installation time
- Bezels: black plastic, chrome metal
- Contact block holder features rear mounting with quick-release locking mechanism for high security
- Buttons available in several colors
- Engraved text caps available
- Custom-specific markings on request
- UL File# E57057
- CSA File# LR19700

Operators

- Pushbuttons, illuminated and non-illuminated
- Double pushbuttons, illuminated and non-illuminated
- Mushroom pushbuttons, illuminated and non-illuminated, 40mm and 60mm diameter
- Emergency stop pushbuttons, illuminated and non-illuminated, twist or pull release
- Selector switches, illuminated and non-illuminated, 2- or 3-position, short or long handle
- Key-operated selector switches, 2- or 3-position
- Toggle switches, 2- or 3-position

Contact Blocks

- Quick-mount, quick release contact block holder for fast and easy assembly/disassembly
- NO & NC contact blocks are color-coded for easy identification: Green = NO; Red = NC
- Silver-tipped contacts
- Wiping action for high reliability
- Low energy gold-plated contact blocks
- Contact block holder for three or five blocks in a single row

Pilot Lights

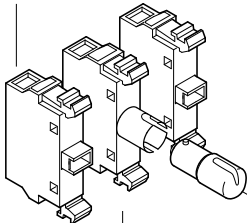
- Full voltage, resistor and transformer
- LED and filament bulbs available

Mounting

Exploded view

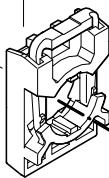
Contact block

Single pole with making or breaking contact

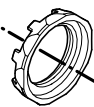


Holder

Available either for three or five blocks in one single row. Additional blocks can be stacked on holders for three blocks.

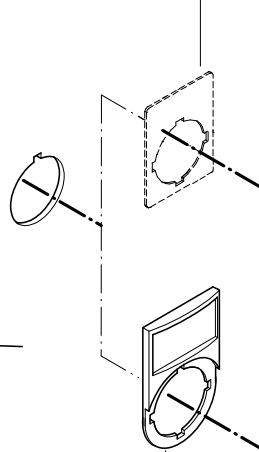


Nut



Legend plates

Of brushed aluminum with slots that guide the legend plate and the operator into the correct position. Please, see the chapter 'Legend Plates' for more information.

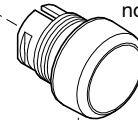


30mm adaptor



Operator

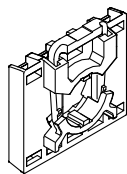
Buttons, lenses and handles in several colors. Illuminated or non-illuminated.



Lamp block

Illuminated pushbuttons, illuminated selector switches and pilot lights have a lamp block in the center position of the holder.

Five block holder



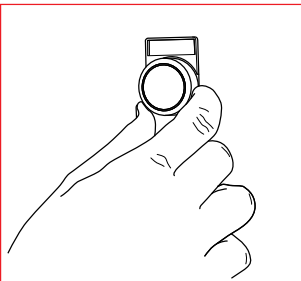
Legend plate holder

Of black plastic. Insert of brushed aluminum. Please, see the chapter 'legend plates' for more information.

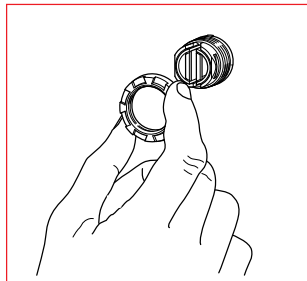
Bezels

Pushbuttons, selector switches and toggle switches with bezel in black plastic, chrome metal are available.

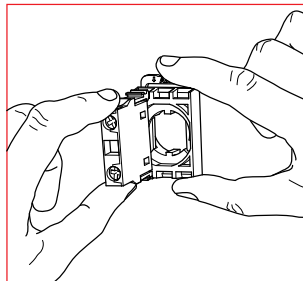
Easy to mount



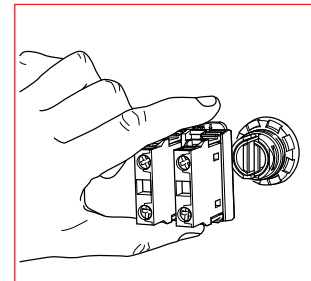
The operator is to be inserted from the front.....



...and secured at the back with a nut.

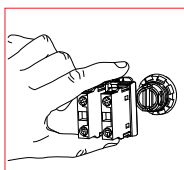
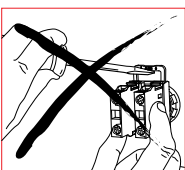


The contact blocks/lamp block are then snapped onto the holder...



...and the holder snaps onto the operator.

...and to remove

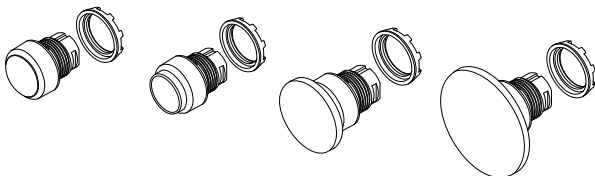


Press down the spring clip on the holder and pull the holder from the actuator.

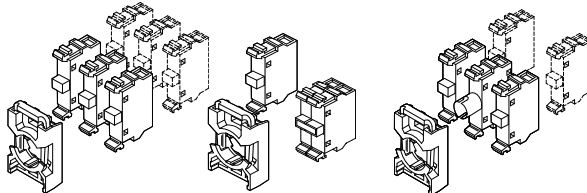
Selection Guide

Assembled
pilot devices

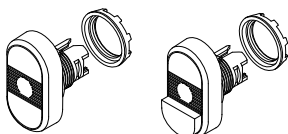
Pushbuttons and Mushroom pushbuttons



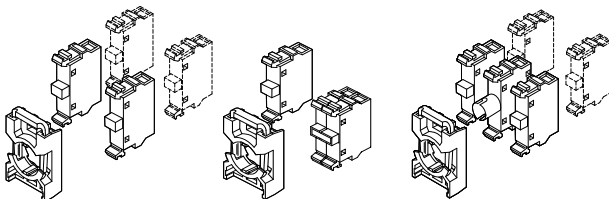
Contact block/lamp block combinations



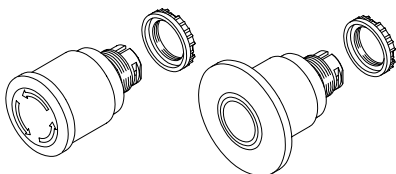
Double pushbuttons



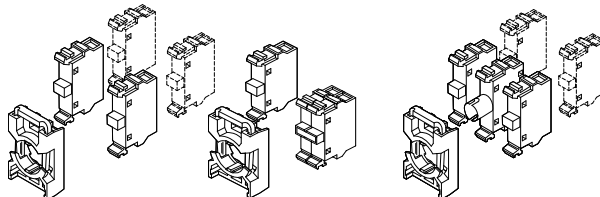
Contact block/lamp block combinations



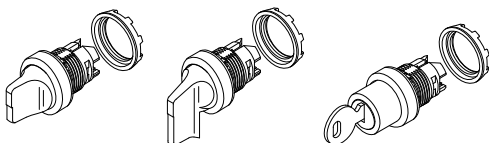
Emergency stop pushbuttons



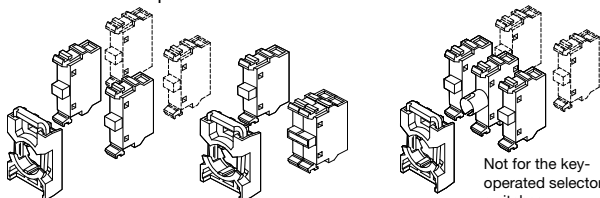
Contact block/lamp block combinations



Selector switches



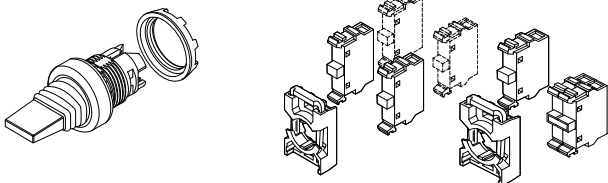
Contact block/lamp block combinations



Not for the key-operated selector switches

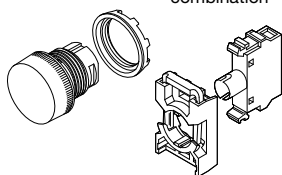
Toggle switches

Contact block combinations



Pilot lights

Lamp block combination



Catalog number and list price explanation

Assembled pilot device part numbers are created by selecting the appropriate characters from the grid. Begin at the top of the grid and work down, adding the desired characters to the part number to create a specific product. The list price is found by adding the prices of all the individually selected options.

Pushbuttons, non-illuminated

Options	Part Number Characters															List Price
Momentary Flush			M	P	1	-										\$ 6.10
Maintained Flush			M	P	2	-										17.30
Momentary Extended			M	P	3	-										6.10
Maintained Extended			M	P	4	-										17.30
Bezel, Black Plastic, with Holder						-	4	0								2.00
Bezel, Chrome Metal, with Holder						-	6	0								2.00
Button Color - Red						-			R							—
Button Color - Green						-			G							—
Button Color - Yellow						-			Y							—
Button Color - Blue						-			L							—
Button Color - White						-			W							—
Button Color - Black						-			B							—
Button Color - Clear						-			C							—
Contact Blocks, 1NO						-			1	0						8.00
Contact Blocks, 2NO						-			2	0						16.00
Contact Blocks, 3NO						-			3	0						24.00
Contact Blocks, 1NC						-			0	1						8.00
Contact Blocks, 2NC						-			0	2						16.00
Contact Blocks, 3NC						-			0	3						24.00
Contact Blocks, 1NO+1NC						-			1	1						16.00
Contact Blocks, 2NO+1NC						-			2	1						24.00
Contact Blocks, 1NO+2NC						-			1	2						24.00
Contact Blocks, 1NO, Gold						-			1	0	G					16.00
Contact Blocks, 2NO, Gold						-			2	0	G					32.00
Contact Blocks, 3NO, Gold						-			3	0	G					48.00
Contact Blocks, 1NC, Gold						-			0	1	G					16.00
Contact Blocks, 2NC, Gold						-			0	2	G					32.00
Contact Blocks, 3NC, Gold						-			0	3	G					48.00
Contact Blocks, 1NO+1NC, Gold						-			1	1	G					32.00
Contact Blocks, 2NO+1NC, Gold						-			2	1	G					48.00
Contact Blocks, 1NO+2NC, Gold						-			1	2	G					48.00
Text Caps with Clear Lens Only						-			C			C	X	X		0.90
5 Block Holder						-									5	4.00
30mm Black Plastic Adaptor Ring	G	1				-										8.00
30mm Chrome Metal Adaptor Ring	G	2				-										10.00

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

M P 1 - 4 0 R 1 0

\$ 6.10 + 2.00 + 8.00 =

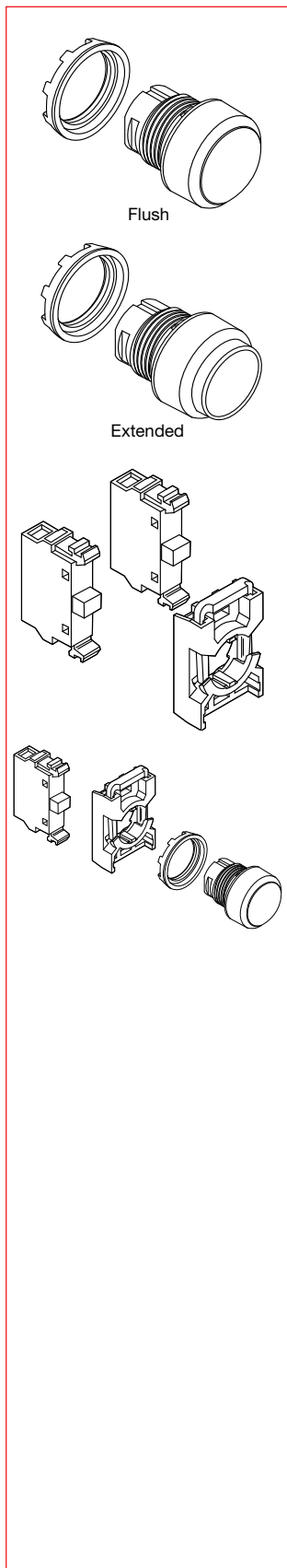
TOTAL \$ 16.10

EXAMPLE:

What is the part number and price for a 22mm momentary flush pushbutton with a black bezel, red button & 1 NO contact block? Follow the arrows to see how the part number and price are determined.

Pushbuttons Non-illuminated

Assembled
pilot devices



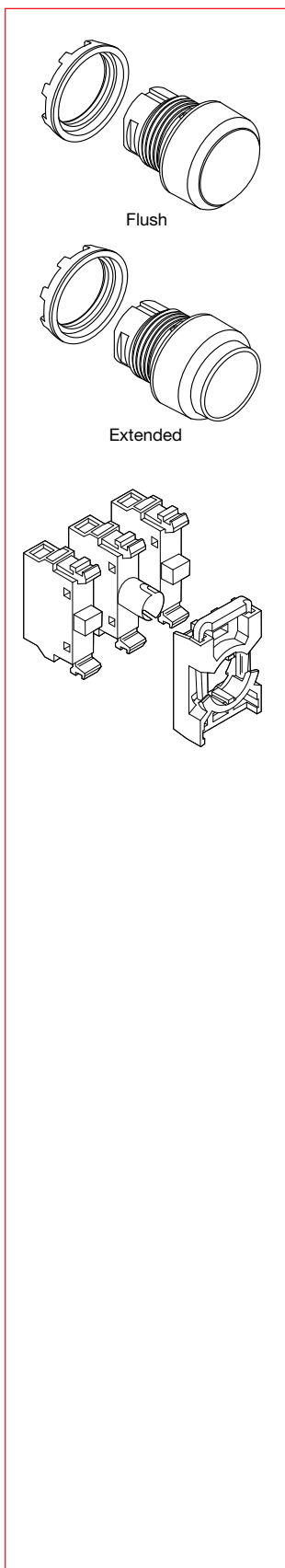
Pushbuttons, non-illuminated

Options	Part Number Characters																List Price
Momentary Flush			M	P	1	-											\$ 6.10
Maintained Flush ①			M	P	2	-											17.30
Momentary Extended			M	P	3	-											6.10
Maintained Extended ①			M	P	4	-											17.30
Bezel, Black Plastic, with Holder						-	4	0									2.00
Bezel, Chrome Metal, with Holder						-	6	0									2.00
Button Color - Red						-			R								—
Button Color - Green						-			G								—
Button Color - Yellow						-			Y								—
Button Color - Blue						-			L								—
Button Color - White						-			W								—
Button Color - Black						-			B								—
Button Color - Clear						-			C								—
Contact Blocks, 1NO						-				1	0						8.00
Contact Blocks, 2NO						-				2	0						16.00
Contact Blocks, 3NO						-				3	0						24.00
Contact Blocks, 1NC						-				0	1						8.00
Contact Blocks, 2NC						-				0	2						16.00
Contact Blocks, 3NC						-				0	3						24.00
Contact Blocks, 1NO+1NC						-				1	1						16.00
Contact Blocks, 2NO+1NC						-				2	1						24.00
Contact Blocks, 1NO+2NC						-				1	2						24.00
Contact Blocks, 1NO, Gold						-				1	0	G					16.00
Contact Blocks, 2NO, Gold						-				2	0	G					32.00
Contact Blocks, 3NO, Gold						-				3	0	G					48.00
Contact Blocks, 1NC, Gold						-				0	1	G					16.00
Contact Blocks, 2NC, Gold						-				0	2	G					32.00
Contact Blocks, 3NC, Gold						-				0	3	G					48.00
Contact Blocks, 1NO+1NC, Gold						-				1	1	G					32.00
Contact Blocks, 2NO+1NC, Gold						-				2	1	G					48.00
Contact Blocks, 1NO+2NC, Gold						-				1	2	G					48.00
Text Caps with Clear Lens Only						-			C				C	X	X②		0.90
5 Block Holder						-										5	4.00
30mm Black Plastic Adaptor Ring ③	G	1				-											8.00
30mm Chrome Metal Adaptor Ring ③	G	2				-											10.00

See catalog number explanation on page 4.

① No contact block in center position.
 ② Replace "XX" with text cap legends from pages 33 - 34.
 ③ For 30mm devices, use Discount Schedule CC

Pushbuttons Illuminated



Pushbuttons, illuminated

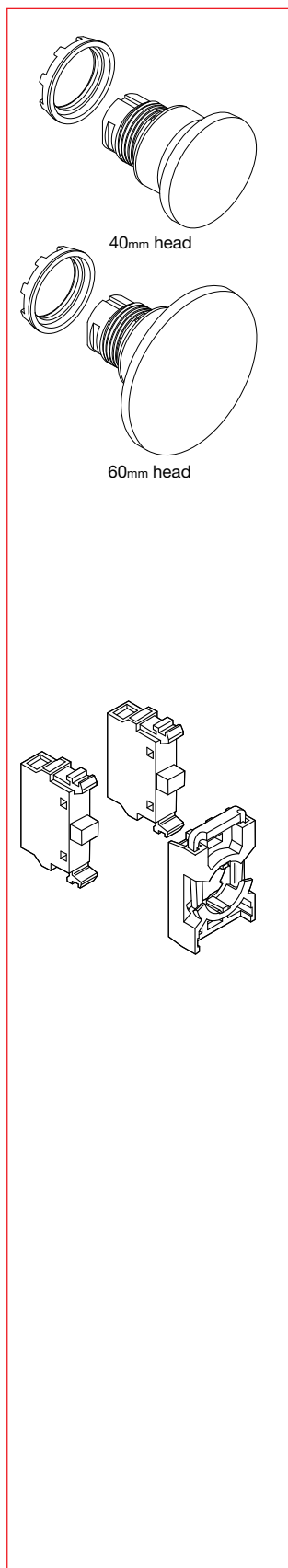
Options	Part Number Characters																				List Price
Momentary Flush ①		M	P	1	-																\$ 6.10
Maintained Flush ①		M	P	2	-																17.30
Momentary Extended ①		M	P	3	-																6.10
Maintained Extended ①		M	P	4	-																17.30
Bezel, Black Plastic, with Holder					-	4															2.00
Bezel, Chrome Metal, with Holder					-	6															2.00
Illuminated without Lampblock ②					-		1														—
Lampblock, MLB-1, Bulb not Included					-		2														17.50
Lampblock, MLB-2, Bulb not Included					-		3														21.50
Lampblock, MLB-3, Bulb not Included					-		4														21.50
Lampblock, MLB-4, Bulb not Included					-		5														21.50
Lampblock, MLB-5, Bulb not Included					-		6														21.50
Button Color - Red					-			R													—
Button Color - Green					-			G													—
Button Color - Yellow					-			Y													—
Button Color - Blue					-			L													—
Button Color - White					-			W													—
Button Color - Clear					-			C													—
Contact Blocks, 1NO					-		1	0													8.00
Contact Blocks, 2NO					-		2	0													16.00
Contact Blocks, 3NO					-		3	0													24.00
Contact Blocks, 1NC					-		0	1													8.00
Contact Blocks, 2NC					-		0	2													16.00
Contact Blocks, 3NC					-		0	3													24.00
Contact Blocks, 1NO+1NC					-		1	1													16.00
Contact Blocks, 2NO+1NC					-		2	1													24.00
Contact Blocks, 1NO+2NC					-		1	2													24.00
Contact Blocks, 1NO, Gold					-		1	0	G												16.00
Contact Blocks, 2NO, Gold					-		2	0	G												32.00
Contact Blocks, 3NO, Gold					-		3	0	G												48.00
Contact Blocks, 1NC, Gold					-		0	1	G												16.00
Contact Blocks, 2NC, Gold					-		0	2	G												32.00
Contact Blocks, 3NC, Gold					-		0	3	G												48.00
Contact Blocks, 1NO+1NC, Gold					-		1	1	G												32.00
Contact Blocks, 2NO+1NC, Gold					-		2	1	G												48.00
Contact Blocks, 1NO+2NC, Gold					-		1	2	G												48.00
Filament Bulb 6V					-					F	6										6.00
Filament Bulb 12V					-					F	7										6.00
Filament Bulb 24V					-					F	8										6.00
Filament Bulb 30V					-					F	3	0									6.00
Filament Bulb 48V					-					F	9										6.00
Filament Bulb 60V					-					F	6	0									6.00
Filament Bulb 110V					-					F	1	1									6.00
Filament Bulb 130V					-					F	1										6.00
LED 12VDC					-					L	7										21.00
LED 24VAC/DC					-					L	8										15.00
LED 48VAC/DC					-					L	9										21.00
LED 60VAC/DC					-					L	6	0									21.00
LED 110-130VAC					-					L	1										15.00
LED 110-130VAC/DC					-					L	1	3									21.00
LED 230V					-					L	2										21.00
Transformer Block 110-127/6VBulb					-					T	1										41.00
Transformer Block 220-240/6VBulb					-					T	2										41.00
Transformer Block 380-420/6VBulb					-					T	3										41.00
Transformer Block 440-480/6VBulb					-					T	4										41.00
Transformer Block 500-600/6VBulb					-					T	5										41.00
Transformer Block 110-127/24VBulb					-					T	6										41.00
Transformer Block 220-240/24VBulb					-					T	7										41.00
Transformer Block 380-420/24VBulb					-					T	8										41.00
Transformer Block 440-480/24VBulb					-					T	9										41.00
Transformer Block 110-127/24VLED					-					T	L	1									50.00
Transformer Block 220-240/24VLED					-					T	L	2									50.00
Transformer Block 380-420/24VLED					-					T	L	3									50.00
Transformer Block 440-480/24VLED					-					T	L	4									50.00
Text Caps with Clear Lens Only					-			C							C	X	X③				0.90
5 Block Holder					-														5		4.00
30mm Black Plastic Adaptor Ring ④	G	1			-																8.00
30mm Chrome Metal Adaptor Ring ④	G	2			-																10.00

See catalog number explanation on page 4.

- ① No contact block in center position.
 ② No filament bulb, LED or transformer block can be combined with "Illuminated without Lampblock" selection.
 ③ Replace "XX" with text cap legends from pages 33 - 34.
 ④ For 30mm devices, use Discount Schedule CC

Mushroom pushbuttons Non-illuminated, momentary

Assembled
pilot devices



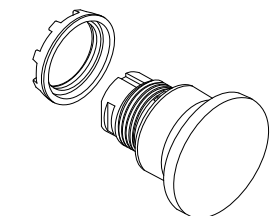
Mushroom pushbuttons, non-illuminated

Options	Part number characters													List Price
Momentary, 40 mm			M	P	M	1	-							\$ 16.00
Momentary, 60 mm			M	P	M	2	-							20.00
Bezel, Black Plastic, with Holder							-	4	0					2.00
Bezel, Chrome Metal, with Holder							-	6	0					2.00
Button Color - Red							-			R				—
Button Color - Yellow							-			Y				—
Button Color - Black							-			B				—
Button Color - Green							-			G				—
Contact Blocks, 1NO							-				1	0		8.00
Contact Blocks, 2NO							-				2	0		16.00
Contact Blocks, 3NO							-				3	0		24.00
Contact Blocks, 1NC							-				0	1		8.00
Contact Blocks, 2NC							-				0	2		16.00
Contact Blocks, 3NC							-				0	3		24.00
Contact Blocks, 1NO+1NC							-				1	1		16.00
Contact Blocks, 2NO+1NC							-				2	1		24.00
Contact Blocks, 1NO+2NC							-				1	2		24.00
Contact Blocks, 1NO, Gold							-				1	0	G	16.00
Contact Blocks, 2NO, Gold							-				2	0	G	32.00
Contact Blocks, 3NO, Gold							-				3	0	G	48.00
Contact Blocks, 1NC, Gold							-				0	1	G	16.00
Contact Blocks, 2NC, Gold							-				0	2	G	32.00
Contact Blocks, 3NC, Gold							-				0	3	G	48.00
Contact Blocks, 1NO+1NC, Gold							-				1	1	G	32.00
Contact Blocks, 2NO+1NC, Gold							-				2	1	G	48.00
Contact Blocks, 1NO+2NC, Gold							-				1	2	G	48.00
5 Block Holder							-						5	4.00
30mm Black Plastic Adaptor Ring ①	G	1					-							8.00
30mm Chrome Metal Adaptor Ring ①	G	2					-							10.00

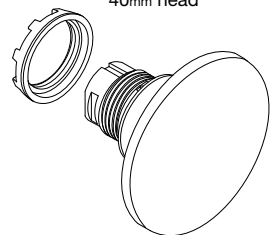
See catalog number explanation on page 4.

① For 30mm devices, use Discount Schedule CC.

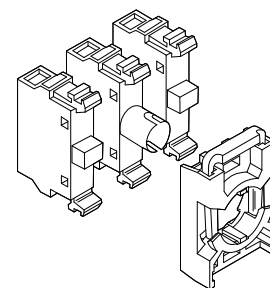
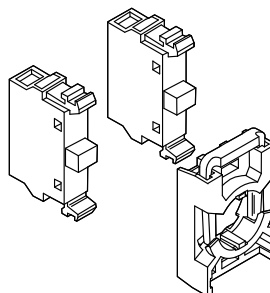
Mushroom pushbuttons Illuminated, momentary ①



40mm head



60mm head



Mushroom pushbuttons, illuminated ①

Options	Part number characters																List price
Momentary, 40 mm			M	P	M	1	-										\$ 16.00
Momentary, 60 mm			M	P	M	2	-										20.00
Bezel, Black Plastic, with Holder							-	4									2.00
Bezel, Chrome Metal, with Holder							-	6									2.00
Illuminated without Lampblock ②							-	1									—
Lampblock, MLB-1, Bulb not Included							-	2									17.50
Lampblock, MLB-2, Bulb not Included							-	3									21.50
Lampblock, MLB-3, Bulb not Included							-	4									21.50
Lampblock, MLB-4, Bulb not Included							-	5									21.50
Lampblock, MLB-5, Bulb not Included							-	6									21.50
Button Color - Red							-		R								—
Button Color - Yellow							-		Y								—
Button Color - Green							-		G								—
Contact Blocks, 1NO							-		1	0							8.00
Contact Blocks, 2NO							-		2	0							16.00
Contact Blocks, 3NO							-		3	0							24.00
Contact Blocks, 1NC							-		0	1							8.00
Contact Blocks, 2NC							-		0	2							16.00
Contact Blocks, 3NC							-		0	3							24.00
Contact Blocks, 1NO+1NC							-		1	1							16.00
Contact Blocks, 2NO+1NC							-		2	1							24.00
Contact Blocks, 1NO+2NC							-		1	2							24.00
Contact Blocks, 1NO, Gold							-		1	0	G						16.00
Contact Blocks, 2NO, Gold							-		2	0	G						32.00
Contact Blocks, 3NO, Gold							-		3	0	G						48.00
Contact Blocks, 1NC, Gold							-		0	1	G						16.00
Contact Blocks, 2NC, Gold							-		0	2	G						32.00
Contact Blocks, 3NC, Gold							-		0	3	G						48.00
Contact Blocks, 1NO+1NC, Gold							-		1	1	G						32.00
Contact Blocks, 2NO+1NC, Gold							-		2	1	G						48.00
Contact Blocks, 1NO+2NC, Gold							-		1	2	G						48.00
Filament Bulb, 6V							-					F	6				6.00
Filament Bulb, 12V							-					F	7				6.00
Filament Bulb, 24V							-					F	8				6.00
Filament Bulb, 30V							-					F	3	0			6.00
Filament Bulb, 48V							-					F	9				6.00
Filament Bulb, 60V							-					F	6	0			6.00
Filament Bulb, 110V							-					F	1	1			6.00
Filament Bulb, 130V							-					F	1				6.00
LED, 12VDC							-					L	7				21.00
LED, 24VAC/DC							-					L	8				15.00
LED, 48VAC/DC							-					L	9				21.00
LED, 60VAC/DC							-					L	6	0			21.00
LED, 110-130VAC							-					L	1				15.00
LED, 110-130VAC/DC							-					L	1	3			21.00
LED, 230VAC							-					L	2				21.00
Transformer Block, 110-127/6V, bulb 6V							-					T	1				41.00
Transformer Block, 220-240/6V, bulb 6V							-					T	2				41.00
Transformer Block, 380-420/6V, bulb 6V							-					T	3				41.00
Transformer Block, 440-480/6V, bulb 6V							-					T	4				41.00
Transformer Block, 500-600/6V, bulb 6V							-					T	5				41.00
Transformer Block, 110-127/24V, bulb 24V							-					T	6				41.00
Transformer Block, 220-240/24V, bulb 24V							-					T	7				41.00
Transformer Block, 380-420/24V, bulb 24V							-					T	8				41.00
Transformer Block, 440-480/24V, bulb 24V							-					T	9				41.00
Transformer Block, 110-127/24V, bulb 24V LED							-					T	L	1			50.00
Transformer Block, 220-240/24V, bulb 24V LED							-					T	L	2			50.00
Transformer Block, 380-420/24V, bulb 24V LED							-					T	L	3			50.00
Transformer Block, 440-480/24V, bulb 24V LED							-					T	L	4			50.00
5 Block Holder							-									5	4.00
30mm Black Plastic Adaptor Ring ③	G	1					-										8.00
30mm Chrome Metal Adaptor Ring ③	G	2					-										10.00

See catalog number explanation on page 4.

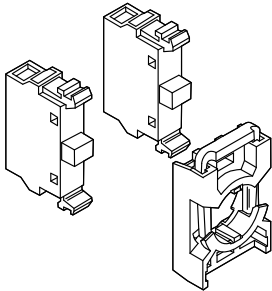
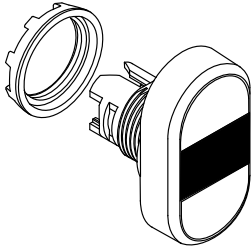
① No contact block in center position.

② No filament bulb, LED or transformer block can be combined with "Illuminated without Lampblock" selection.

③ For 30mm devices, use Discount Schedule CC.

Double pushbuttons Flush/flush, non-illuminated ①

Assembled
pilot devices



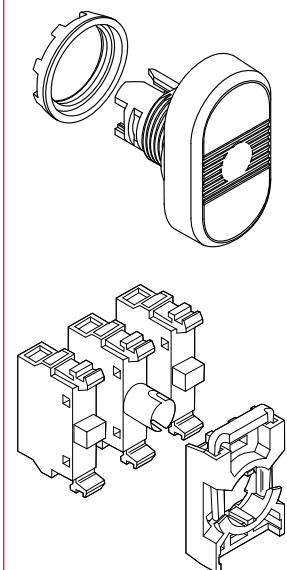
Double pushbutton, flush/flush, non-illuminated ①

Options	Part number characters													List Price
Flush/Flush, Green/Red	M	P	D	1	-									\$ 18.00
Flush/Flush, Green/Red, I/O	M	P	D	2	-									21.00
Flush/Flush, Green/Red, ON/OFF	M	P	D	3	-									21.00
Flush/Flush, Green/Red, START/STOP	M	P	D	4	-									21.00
Flush/Flush, White/Black	M	P	D	5	-									18.00
Flush/Flush, White/Black, I/O	M	P	D	6	-									21.00
Flush/Flush, White/Black, ON/OFF	M	P	D	7	-									21.00
Flush/Flush, White/Black, START/STOP	M	P	D	8	-									21.00
With Holder					-	2	0							2.00
Center Lens Color - Black					-			B						—
Contact Blocks, 1NO					-				1	0				8.00
Contact Blocks, 2NO					-				2	0				16.00
Contact Blocks, 3NO					-				3	0				24.00
Contact Blocks, 1NC					-				0	1				8.00
Contact Blocks, 2NC					-				0	2				16.00
Contact Blocks, 3NC					-				0	3				24.00
Contact Blocks, 1NO+1NC					-				1	1				16.00
Contact Blocks, 2NO+1NC					-				2	1				24.00
Contact Blocks, 1NO+2NC					-				1	2				24.00
Contact Blocks, 1NO, Gold					-				1	0	G			16.00
Contact Blocks, 2NO, Gold					-				2	0	G			32.00
Contact Blocks, 3NO, Gold					-				3	0	G			48.00
Contact Blocks, 1NC, Gold					-				0	1	G			16.00
Contact Blocks, 2NC, Gold					-				0	2	G			32.00
Contact Blocks, 3NC, Gold					-				0	3	G			48.00
Contact Blocks, 1NO+1NC, Gold					-				1	1	G			32.00
Contact Blocks, 2NO+1NC, Gold					-				2	1	G			48.00
Contact Blocks, 1NO+2NC, Gold					-				1	2	G			48.00
5 Block Holder					-								5	4.00

See catalog number explanation on page 4.

① No contact block in center position.

Double pushbutton Flush/flush, illuminated center ①



Double pushbutton, flush/flush, illuminated ①

Options	Part number characters																List price
Flush/Flush, Green/Red	M	P	D	1	-												\$ 26.00
Flush/Flush, Green/Red, I/O	M	P	D	2	-												29.00
Flush/Flush, Green/Red, ON/OFF	M	P	D	3	-												29.00
Flush/Flush, Green/Red, START/STOP	M	P	D	4	-												29.00
Flush/Flush, White/Black	M	P	D	5	-												26.00
Flush/Flush, White/Black, I/O	M	P	D	6	-												29.00
Flush/Flush, White/Black, ON/OFF	M	P	D	7	-												29.00
Flush/Flush, White/Black, START/STOP	M	P	D	8	-												29.00
With Holder					-	2											2.00
Illuminated without Lampblock ②					-		1										—
Lampblock, MLB-1, Bulb not Included					-		2										17.50
Lampblock, MLB-2, Bulb not Included					-		3										21.50
Lampblock, MLB-3, Bulb not Included					-		4										21.50
Lampblock, MLB-4, Bulb not Included					-		5										21.50
Lampblock, MLB-5, Bulb not Included					-		6										21.50
Center Lens Color - Red					-			R									—
Center Lens Color - Green					-			G									—
Center Lens Color - Yellow					-			Y									—
Center Lens Color - Clear					-			C									—
Contact Blocks, 1NO					-				1	0							8.00
Contact Blocks, 2NO					-				2	0							16.00
Contact Blocks, 3NO					-				3	0							24.00
Contact Blocks, 1NC					-				0	1							8.00
Contact Blocks, 2NC					-				0	2							16.00
Contact Blocks, 3NC					-				0	3							24.00
Contact Blocks, 1NO+1NC					-				1	1							16.00
Contact Blocks, 2NO+1NC					-				2	1							24.00
Contact Blocks, 1NO+2NC					-				1	2							24.00
Contact Blocks, 1NO, Gold					-				1	0	G						16.00
Contact Blocks, 2NO, Gold					-				2	0	G						32.00
Contact Blocks, 3NO, Gold					-				3	0	G						48.00
Contact Blocks, 1NC, Gold					-				0	1	G						16.00
Contact Blocks, 2NC, Gold					-				0	2	G						32.00
Contact Blocks, 3NC, Gold					-				0	3	G						48.00
Contact Blocks, 1NO+1NC, Gold					-				1	1	G						32.00
Contact Blocks, 2NO+1NC, Gold					-				2	1	G						48.00
Contact Blocks, 1NO+2NC, Gold					-				1	2	G						48.00
Filament Bulb, 6V					-						F	6					6.00
Filament Bulb, 12V					-						F	7					6.00
Filament Bulb, 24V					-						F	8					6.00
Filament Bulb, 30V					-						F	3	0				6.00
Filament Bulb, 48V					-						F	9					6.00
Filament Bulb, 60V					-						F	6	0				6.00
Filament Bulb, 110V					-						F	1	1				6.00
Filament Bulb, 130V					-						F	1					6.00
LED, 12VDC					-						L	7					21.00
LED, 24VAC/DC					-						L	8					15.00
LED, 48VAC/DC					-						L	9					21.00
LED, 60VAC/DC					-						L	6	0				21.00
LED, 110-130VAC					-						L	1					15.00
LED, 110-130VAC/DC					-						L	1	3				21.00
LED, 230VAC					-						L	2					21.00
Transformer Block, 110-127/6V, bulb 6V					-						T	1					41.00
Transformer Block, 220-240/6V, bulb 6V					-						T	2					41.00
Transformer Block, 380-420/6V, bulb 6V					-						T	3					41.00
Transformer Block, 440-480/6V, bulb 6V					-						T	4					41.00
Transformer Block, 500-600/6V, bulb 6V					-						T	5					41.00
Transformer Block, 110-127/24V, bulb 24V					-						T	6					41.00
Transformer Block, 220-240/24V, bulb 24V					-						T	7					41.00
Transformer Block, 380-420/24V, bulb 24V					-						T	8					41.00
Transformer Block, 440-480/24V, bulb 24V					-						T	9					41.00
Transformer Block, 110-127/24V, bulb 24V LED					-						T	L	1				50.00
Transformer Block, 220-240/24V, bulb 24V LED					-						T	L	2				50.00
Transformer Block, 380-420/24V, bulb 24V LED					-						T	L	3				50.00
Transformer Block, 440-480/24V, bulb 24V LED					-						T	L	4				50.00
5 Block Holder					-											5	4.00

See catalog number explanation on page 4.

① No contact block in center position.

② No filament bulb, LED or transformer block can be combined with "Illuminated without Lampblock" selection.

Double pushbuttons

Flush/extended, non-illuminated ①

Assembled
pilot devices



Double pushbutton, flush/extended, non-illuminated ①

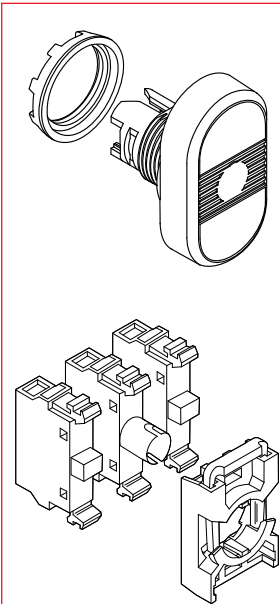
Options	Part number characters													List price
Flush/Extended, Green/Red	M	P	D	1	2	-								\$ 18.00
Flush/Extended, Green/Red, I/O	M	P	D	1	3	-								21.00
Flush/Extended, Green/Red, ON/OFF	M	P	D	1	4	-								21.00
Flush/Extended, Green/Red, START/STOP	M	P	D	1	5	-								21.00
Flush/Extended, White/Black	M	P	D	1	6	-								18.00
Flush/Extended, White/Black, I/O	M	P	D	1	7	-								21.00
Flush/Extended, White/Black, ON/OFF	M	P	D	1	8	-								21.00
Flush/Extended, White/Black, START/STOP	M	P	D	1	9	-								21.00
With Holder								2	0					2.00
Center Lens Color - Black						-			B					—
Contact Blocks, 1NO						-				1	0			8.00
Contact Blocks, 2NO						-				2	0			16.00
Contact Blocks, 3NO						-				3	0			24.00
Contact Blocks, 1NC						-				0	1			8.00
Contact Blocks, 2NC						-				0	2			16.00
Contact Blocks, 3NC						-				0	3			24.00
Contact Blocks, 1NO+1NC						-				1	1			16.00
Contact Blocks, 2NO+1NC						-				2	1			24.00
Contact Blocks, 1NO+2NC						-				1	2			24.00
Contact Blocks, 1NO, Gold						-				1	0	G		16.00
Contact Blocks, 2NO, Gold						-				2	0	G		32.00
Contact Blocks, 3NO, Gold						-				3	0	G		48.00
Contact Blocks, 1NC, Gold						-				0	1	G		16.00
Contact Blocks, 2NC, Gold						-				0	2	G		32.00
Contact Blocks, 3NC, Gold						-				0	3	G		48.00
Contact Blocks, 1NO+1NC, Gold						-				1	1	G		32.00
Contact Blocks, 2NO+1NC, Gold						-				2	1	G		48.00
Contact Blocks, 1NO+2NC, Gold						-				1	2	G		48.00
5 Block Holder						-							5	4.00

See catalog number explanation on page 4.

① No contact block in center position.

Double pushbuttons

Flush/extended, illuminated ①



Double pushbutton, flush/extended, illuminated ①

Options	Part number characters														List price
Flush/Extended, Green/Red	M	P	D	1	2	-									\$ 26.00
Flush/Extended, Green/Red, I/O	M	P	D	1	3	-									29.00
Flush/Extended, Green/Red, ON/OFF	M	P	D	1	4	-									29.00
Flush/Extended, Green/Red, START/STOP	M	P	D	1	5	-									29.00
Flush/Extended, White/Black	M	P	D	1	6	-									26.00
Flush/Extended, White/Black, I/O	M	P	D	1	7	-									29.00
Flush/Extended, White/Black, ON/OFF	M	P	D	1	8	-									29.00
Flush/Extended, White/Black, START/STOP	M	P	D	1	9	-									29.00
With Holder						-	2								\$ 2.00
Illuminated without Lampblock ②						-	1								—
Lampblock, MLB-1, Bulb not Included						-	2								17.50
Lampblock, MLB-2, Bulb not Included						-	3								21.50
Lampblock, MLB-3, Bulb not Included						-	4								21.50
Lampblock, MLB-4, Bulb not Included						-	5								21.50
Lampblock, MLB-5, Bulb not Included						-	6								21.50
Lens Color - Red						-		R							—
Lens Color - Green						-		G							—
Lens Color - Yellow						-		Y							—
Lens Color - Clear						-		C							—
Contact Blocks, 1NO						-			1	0					8.00
Contact Blocks, 2NO						-			2	0					16.00
Contact Blocks, 3NO						-			3	0					24.00
Contact Blocks, 1NC						-			0	1					8.00
Contact Blocks, 2NC						-			0	2					16.00
Contact Blocks, 3NC						-			0	3					24.00
Contact Blocks, 1NO+1NC						-			1	1					16.00
Contact Blocks, 2NO+1NC						-			2	1					24.00
Contact Blocks, 1NO+2NC						-			1	2					24.00
Contact Blocks, 1NO, Gold						-			1	0	G				16.00
Contact Blocks, 2NO, Gold						-			2	0	G				32.00
Contact Blocks, 3NO, Gold						-			3	0	G				48.00
Contact Blocks, 1NC, Gold						-			0	1	G				16.00
Contact Blocks, 2NC, Gold						-			0	2	G				32.00
Contact Blocks, 3NC, Gold						-			0	3	G				48.00
Contact Blocks, 1NO+1NC, Gold						-			1	1	G				32.00
Contact Blocks, 2NO+1NC, Gold						-			2	1	G				48.00
Contact Blocks, 1NO+2NC, Gold						-			1	2	G				48.00
Filament Bulb, 6V						-					F	6			6.00
Filament Bulb, 12V						-					F	7			6.00
Filament Bulb, 24V						-					F	8			6.00
Filament Bulb, 30V						-					F	3	0		6.00
Filament Bulb, 48V						-					F	9			6.00
Filament Bulb, 60V						-					F	6	0		6.00
Filament Bulb, 110V						-					F	1	1		6.00
Filament Bulb, 130V						-					F	1			6.00
LED, 12VDC						-					L	7			21.00
LED, 24VAC/DC						-					L	8			15.00
LED, 48VAC/DC						-					L	9			21.00
LED, 60VAC/DC						-					L	6	0		21.00
LED, 110-130VAC						-					L	1			15.00
LED, 110-130VAC/DC						-					L	1	3		21.00
LED, 230VAC						-					L	2			21.00
Transformer Block, 110-127/6V, bulb 6V						-					T	1			41.00
Transformer Block, 220-240/6V, bulb 6V						-					T	2			41.00
Transformer Block, 380-420/6V, bulb 6V						-					T	3			41.00
Transformer Block, 440-480/6V, bulb 6V						-					T	4			41.00
Transformer Block, 500-600/6V, bulb 6V						-					T	5			41.00
Transformer Block, 110-127/24V, bulb 24V						-					T	6			41.00
Transformer Block, 220-240/24V, bulb 24V						-					T	7			41.00
Transformer Block, 380-420/24V, bulb 24V						-					T	8			41.00
Transformer Block, 440-480/24V, bulb 24V						-					T	9			41.00
Transformer Block, 110-127/24V, bulb 24V LED						-					T	L	1		50.00
Transformer Block, 220-240/24V, bulb 24V LED						-					T	L	2		50.00
Transformer Block, 380-420/24V, bulb 24V LED						-					T	L	3		50.00
Transformer Block, 440-480/24V, bulb 24V LED						-					T	L	4		50.00
5 Block Holder						-								5	4.00

See catalog number explanation on page 4.

① No contact block in center position.

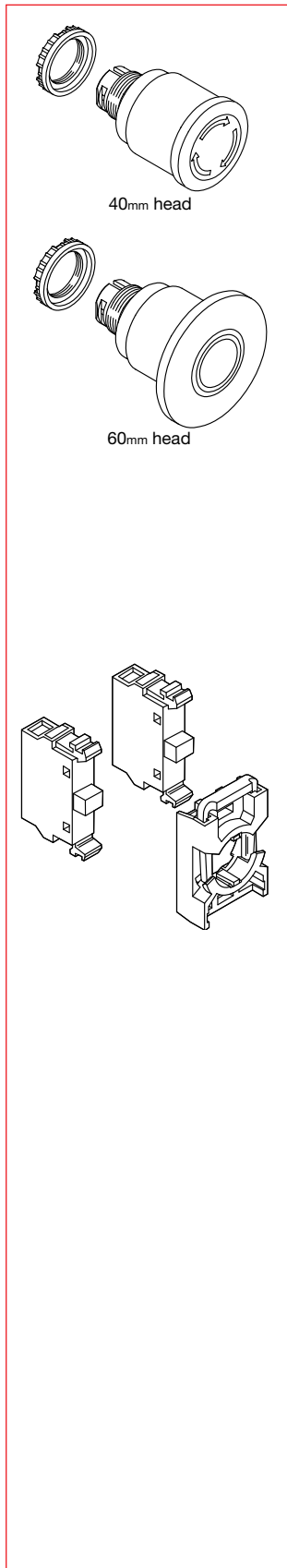
② No filament bulb, LED or transformer block can be combined with "Illuminated without Lampblock" selection.

Emergency stops & machine stops

Non-illuminated, maintained

Fulfills IEC 60947-5-5

Assembled
pilot devices



Emergency stops and machine stops, non-illuminated, maintained

Options	Part number characters														List price
40mm, Twist Release			M	P	M	T	3	-							\$ 34.00
40mm, Pull Release			M	P	M	P	3	-							34.00
60mm, Twist Release			M	P	M	T	4	-							46.00
60mm, Pull Release			M	P	M	P	4	-							46.00
With Holder, 3 Block								-	2	0					2.00
Red								-			R				—
Contact Blocks, 1NO								-				1	0		8.00
Contact Blocks, 2NO								-				2	0		16.00
Contact Blocks, 3NO								-				3	0		24.00
Contact Blocks, 1NC								-				0	1		8.00
Contact Blocks, 2NC								-				0	2		16.00
Contact Blocks, 3NC								-				0	3		24.00
Contact Blocks, 1NO+1NC								-				1	1		16.00
Contact Blocks, 2NO+1NC								-				2	1		24.00
Contact Blocks, 1NO+2NC								-				1	2		24.00
Contact Blocks, 1NO, Gold								-				1	0	G	16.00
Contact Blocks, 2NO, Gold								-				2	0	G	32.00
Contact Blocks, 3NO, Gold								-				3	0	G	48.00
Contact Blocks, 1NC, Gold								-				0	1	G	16.00
Contact Blocks, 2NC, Gold								-				0	2	G	32.00
Contact Blocks, 3NC, Gold								-				0	3	G	48.00
Contact Blocks, 1NO+1NC, Gold								-				1	1	G	32.00
Contact Blocks, 2NO+1NC, Gold								-				2	1	G	48.00
Contact Blocks, 1NO+2NC, Gold								-				1	2	G	48.00
5 Block Holder														5	4.00
30mm Black Plastic Adaptor Ring ①	G	1													8.00
30mm Chrome Metal Adaptor Ring ①	G	2													10.00

See catalog number explanation on page 4.

To comply with the standard, IEC 60947-5-5, a number of tests have to be conducted:

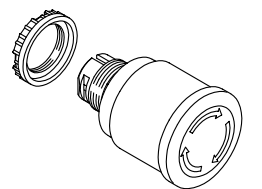
Durability test	6,050 cycles. This is not a test of mechanical life. The product has a mechanical life of 100,000 operations.	Latching test	Impulse voltage test at 2,500 V
Robustness	The force 113 N applied in three axes	Resetting test	Pulling force < 50 N Turning torque < 1 Nm
Conditioning	Heat and cold, moist atmosphere, and in 5 % NaC	Shock	15 g shock
		Vibration	2 h at 50m/s ²
		Contacts with positive opening operation	15 g shock

① For 30mm devices, use Discount Schedule CC.

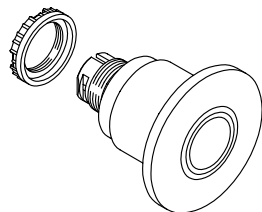
Emergency stops & machine stops

Illuminated, maintained ①

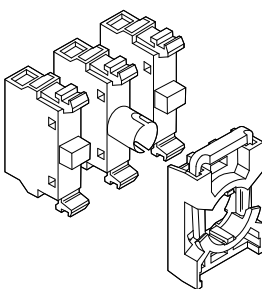
Fulfills IEC 60947-5-5



40mm head



60mm head



Emergency stops and machine stops, illuminated

Options	Part number characters																List price
40mm, Twist Release		M	P	M	T	3	-										\$ 34.00
40mm, Pull Release		M	P	M	P	3	-										34.00
60mm, Twist Release		M	P	M	T	4	-										46.00
60mm, Pull Release		M	P	M	P	4	-										46.00
With Holder							-	2									2.00
Illuminated without Lampblock ②							-	1									—
Lampblock, MLB-1, Bulb not Included							-	2									17.50
Lampblock, MLB-2, Bulb not Included							-	3									21.50
Lampblock, MLB-3, Bulb not Included							-	4									21.50
Lampblock, MLB-4, Bulb not Included							-	5									21.50
Lampblock, MLB-5, Bulb not Included							-	6									21.50
Button Color - Red							-		R								—
Contact Blocks, 1NO							-		1	0							8.00
Contact Blocks, 2NO							-		2	0							16.00
Contact Blocks, 3NO							-		3	0							24.00
Contact Blocks, 1NC							-		0	1							8.00
Contact Blocks, 2NC							-		0	2							16.00
Contact Blocks, 3NC							-		0	3							24.00
Contact Blocks, 1NO+1NC							-		1	1							16.00
Contact Blocks, 2NO+1NC							-		2	1							24.00
Contact Blocks, 1NO+2NC							-		1	2							24.00
Contact Blocks, 1NO, Gold							-		1	0	G						16.00
Contact Blocks, 2NO, Gold							-		2	0	G						32.00
Contact Blocks, 3NO, Gold							-		3	0	G						48.00
Contact Blocks, 1NC, Gold							-		0	1	G						16.00
Contact Blocks, 2NC, Gold							-		0	2	G						32.00
Contact Blocks, 3NC, Gold							-		0	3	G						48.00
Contact Blocks, 1NO+1NC, Gold							-		1	1	G						32.00
Contact Blocks, 2NO+1NC, Gold							-		2	1	G						48.00
Contact Blocks, 1NO+2NC, Gold							-		1	2	G						48.00
Filament Bulb, 6V							-				F	7					6.00
Filament Bulb, 12V							-				F	7					6.00
Filament Bulb, 24V							-				F	8					6.00
Filament Bulb, 30V							-				F	3	0				6.00
Filament Bulb, 48V							-				F	9					6.00
Filament Bulb, 60V							-				F	6	0				6.00
Filament Bulb, 110V							-				F	1	1				6.00
Filament Bulb, 130V							-				F	1					6.00
LED, 12VDC							-				L	7					21.00
LED, 24VAC/DC							-				L	8					15.00
LED, 48VAC/DC							-				L	9					21.00
LED, 60VAC/DC							-				L	6	0				21.00
LED, 110-130VAC							-				L	1					15.00
LED, 110-130VAC/DC							-				L	1	3				21.00
LED, 230VAC							-				L	2					21.00
Transformer Block, 110-127/6V, bulb 6V							-				T	1					41.00
Transformer Block, 220-240/6V, bulb 6V							-				T	2					41.00
Transformer Block, 380-420/6V, bulb 6V							-				T	3					41.00
Transformer Block, 440-480/6V, bulb 6V							-				T	4					41.00
Transformer Block, 500-600/6V, bulb 6V							-				T	5					41.00
Transformer Block, 110-127/24V, bulb 24V							-				T	6					41.00
Transformer Block, 220-240/24V, bulb 24V							-				T	7					41.00
Transformer Block, 380-420/24V, bulb 24V							-				T	8					41.00
Transformer Block, 440-480/24V, bulb 24V							-				T	9					41.00
Transformer Block, 110-127/24V, bulb 24V LED							-				T	L	1				50.00
Transformer Block, 220-240/24V, bulb 24V LED							-				T	L	2				50.00
Transformer Block, 380-420/24V, bulb 24V LED							-				T	L	3				50.00
Transformer Block, 440-480/24V, bulb 24V LED							-				T	L	4				50.00
5 Block Holder																5	4.00
30mm Black Plastic Adaptor Ring ③	G	1															8.00
30mm Chrome Metal Adaptor Ring ③	G	2															10.00

See catalog number explanation on page 4.

To comply with the standard, IEC 60947-5-5, a number of tests have to be conducted:

See page 13.

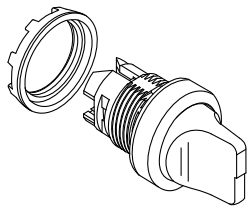
① No contact block in center position.

② No filament bulb, LED or transformer block can be combined with "Illuminated without Lampblock" selection.

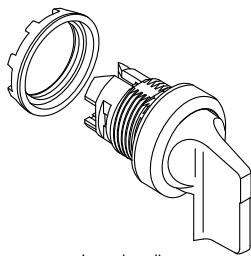
③ For 30mm devices, use Discount Schedule CC.

Selector switches, two position Non-illuminated ①

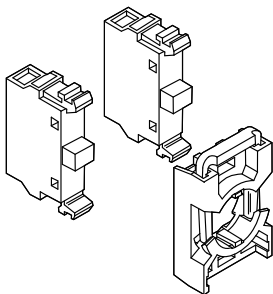
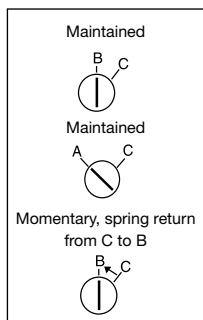
Assembled
pilot devices



Short handle



Long handle



Contact functions

Block positions as seen from operator front.

Handle position	Left block	Right block
A or (B)	O	O
C	X	X

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

Selector switches, two-position, non-illuminated ①

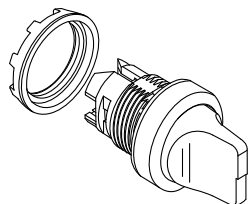
Options	Part number characters													List price
Short/Main B&C			M	2	S	S	1	-						\$ 11.00
Short/Main A&C			M	2	S	S	2	-						11.00
Short/Spring Return C to B			M	2	S	S	3	-						14.00
Long/Main B&C			M	2	S	S	4	-						11.00
Long/Main A&C			M	2	S	S	5	-						11.00
Long/Spring Return C to B			M	2	S	S	6	-						14.00
Bezel, Black Plastic, with Holder								-	4	0				2.00
Bezel, Chrome Metal, with Holder								-	6	0				2.00
Switch Color - Red											R			—
Switch Color - Black											B			—
Switch Color - Grey											U			—
Contact Blocks, 1NO								-				1	0	8.00
Contact Blocks, 2NO								-				2	0	16.00
Contact Blocks, 3NO								-				3	0	24.00
Contact Blocks, 1NC								-				0	1	8.00
Contact Blocks, 2NC								-				0	2	16.00
Contact Blocks, 3NC								-				0	3	24.00
Contact Blocks, 1NO+1NC								-				1	1	16.00
Contact Blocks, 2NO+1NC								-				2	1	24.00
Contact Blocks, 1NO+2NC								-				1	2	24.00
Contact Blocks, 1NO, Gold								-				1	0	16.00
Contact Blocks, 2NO, Gold								-				2	0	32.00
Contact Blocks, 3NO, Gold								-				3	0	48.00
Contact Blocks, 1NC, Gold								-				0	1	16.00
Contact Blocks, 2NC, Gold								-				0	2	32.00
Contact Blocks, 3NC, Gold								-				0	3	48.00
Contact Blocks, 1NO+1NC, Gold								-				1	1	32.00
Contact Blocks, 2NO+1NC, Gold								-				2	1	48.00
Contact Blocks, 1NO+2NC, Gold								-				1	2	48.00
5 Block Holder								-						5 4.00
30mm Black Plastic Adaptor Ring ②	G	1						-						8.00
30mm Chrome Metal Adaptor Ring ②	G	2						-						10.00

See catalog number explanation on page 4.

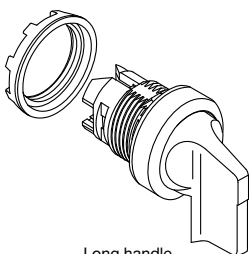
① No contact block in center position.

② For 30mm devices, use Discount Schedule CC.

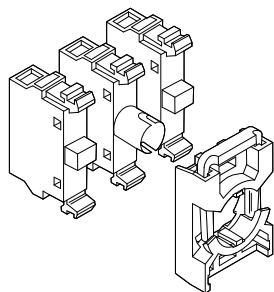
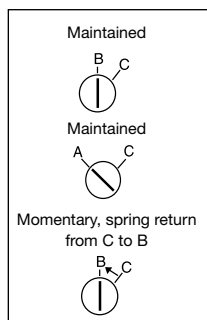
Selector switches, two position Illuminated ①



Short handle



Long handle



Contact functions

Block positions as seen from operator front.

Handle position	Left block	Right block
A or (B)	O	O
C	X	X

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

Selector switches, two-position, illuminated ①

Options	Part number characters																List price
Short/Main B&C			M	2	S	S	1	-									\$ 17.00
Short/Main A&C			M	2	S	S	2	-									17.00
Short/Spring Return C to B			M	2	S	S	3	-									26.00
Long/Main B&C			M	2	S	S	4	-									17.00
Long/Main A&C			M	2	S	S	5	-									17.00
Long/Spring Return C to B			M	2	S	S	6	-									26.00
Bezel, Black Plastic, with Holder								- 4									\$ 2.00
Bezel, Chrome Metal, with Holder								- 6									2.00
Illuminated without Lampblock ②								- 1									—
Lampblock, MLB-1, Bulb not Included								- 2									17.50
Lampblock, MLB-2, Bulb not Included								- 3									21.50
Lampblock, MLB-3, Bulb not Included								- 4									21.50
Lampblock, MLB-4, Bulb not Included								- 5									21.50
Lampblock, MLB-5, Bulb not Included								- 6									21.50
Switch Color - Red									R								—
Switch Color - Green									G								—
Switch Color - Yellow									Y								—
Switch Color - Blue									L								—
Switch Color - Clear									C								—
Contact Blocks, 1NO										1	0						8.00
Contact Blocks, 2NO										2	0						16.00
Contact Blocks, 3NO										3	0						24.00
Contact Blocks, 1NC										0	1						8.00
Contact Blocks, 2NC										0	2						16.00
Contact Blocks, 3NC										0	3						24.00
Contact Blocks, 1NO+1NC										1	1						16.00
Contact Blocks, 2NO+1NC										2	1						24.00
Contact Blocks, 1NO+2NC										1	2						24.00
Contact Blocks, 1NO, Gold										1	0	G					16.00
Contact Blocks, 2NO, Gold										2	0	G					32.00
Contact Blocks, 3NO, Gold										3	0	G					48.00
Contact Blocks, 1NC, Gold										0	1	G					16.00
Contact Blocks, 2NC, Gold										0	2	G					32.00
Contact Blocks, 3NC, Gold										0	3	G					48.00
Contact Blocks, 1NO+1NC, Gold										1	1	G					32.00
Contact Blocks, 2NO+1NC, Gold										2	1	G					48.00
Contact Blocks, 1NO+2NC, Gold										1	2	G					48.00
Filament Bulb, 6V													F	6			6.00
Filament Bulb, 12V													F	7			6.00
Filament Bulb, 24V													F	8			6.00
Filament Bulb, 30V													F	3	0		6.00
Filament Bulb, 48V													F	9			6.00
Filament Bulb, 60V													F	6	0		6.00
Filament Bulb, 110V													F	1	1		6.00
Filament Bulb, 130V													F	1			6.00
LED, 12VDC													L	7			21.00
LED, 24VAC/DC													L	8			15.00
LED, 48VAC/DC													L	9			21.00
LED, 60VAC/DC													L	6	0		21.00
LED, 110-130VAC													L	1			15.00
LED, 110-130VAC/DC													L	1	3		21.00
LED, 230VAC													L	2			21.00
Transformer Block, 110-127/6V, bulb 6V													T	1			41.00
Transformer Block, 220-240/6V, bulb 6V													T	2			41.00
Transformer Block, 380-420/6V, bulb 6V													T	3			41.00
Transformer Block, 440-480/6V, bulb 6V													T	4			41.00
Transformer Block, 500-600/6V, bulb 6V													T	5			41.00
Transformer Block, 110-127/24V, bulb 24V													T	6			41.00
Transformer Block, 220-240/24V, bulb 24V													T	7			41.00
Transformer Block, 380-420/24V, bulb 24V													T	8			41.00
Transformer Block, 440-480/24V, bulb 24V													T	9			41.00
Transformer Block, 110-127/24V, bulb 24V LED													T	L	1		50.00
Transformer Block, 220-240/24V, bulb 24V LED													T	L	2		50.00
Transformer Block, 380-420/24V, bulb 24V LED													T	L	3		50.00
Transformer Block, 440-480/24V, bulb 24V LED													T	L	4		50.00
5 Block Holder																5	4.00
30mm Black Plastic Adaptor Ring ③						G	1										8.00
30mm Chrome Metal Adaptor Ring ③						G	2										10.00

See catalog number explanation on page 4.

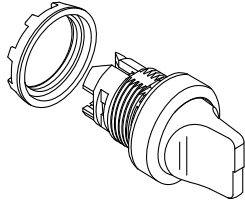
① No contact block in center position.

② No filament bulb, LED or transformer block can be combined with "Illuminated without Lampblock" selection.

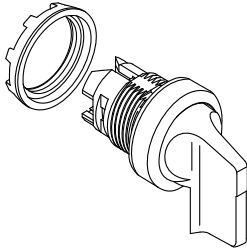
③ For 30mm devices, use Discount Schedule CC.

Selector switches, three position Non-illuminated ①

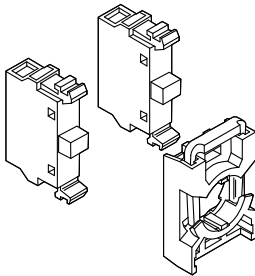
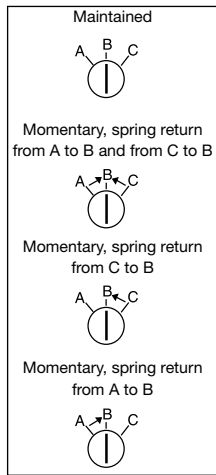
Assembled
pilot devices



Short handle



Long handle



Contact functions

Block positions as seen from operator front.

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

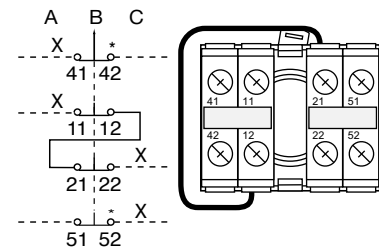
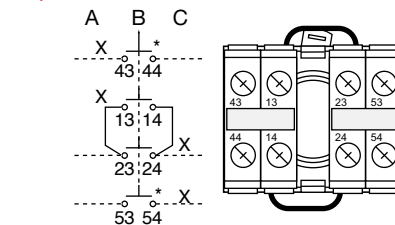
O = not actuated (normal state)
X = actuated (changed state)

Selector switches, three-position, non-illuminated ①

Options	Part number characters																List price
Short/3-Main			M	3	S	S	1	-									\$ 11.00
Short/Spring Return to B			M	3	S	S	2	-									14.00
Short/Main A&B/Spring Return C to B			M	3	S	S	3	-									14.00
Long/3-Main			M	3	S	S	4	-									11.00
Long/Spring Return to B			M	3	S	S	5	-									14.00
Long/Main A&B/Spring Return C to B			M	3	S	S	6	-									14.00
Short/Main B&C/Spring Return A to B			M	3	S	S	7	-									14.00
Long/Main B&C/Spring Return A to B			M	3	S	S	8	-									14.00
Bezel, Black Plastic, with Holder								-	4	0							2.00
Bezel, Chrome Metal, with Holder								-	6	0							2.00
Switch Color - Red													R				—
Switch Color - Black													B				—
Switch Color - Grey													U				—
Contact Blocks, 1NO														1	0		8.00
Contact Blocks, 2NO														2	0		16.00
Contact Blocks, 3NO														3	0		24.00
Contact Blocks, 1NC														0	1		8.00
Contact Blocks, 2NC														0	2		16.00
Contact Blocks, 3NC														0	3		24.00
Contact Blocks, 1NO+1NC														1	1		16.00
Contact Blocks, 2NO+1NC														2	1		24.00
Contact Blocks, 1NO+2NC														1	2		24.00
Contact Blocks, 1NO, Gold														1	0	G	16.00
Contact Blocks, 2NO, Gold														2	0	G	32.00
Contact Blocks, 3NO, Gold														3	0	G	48.00
Contact Blocks, 1NC, Gold														0	1	G	16.00
Contact Blocks, 2NC, Gold														0	2	G	32.00
Contact Blocks, 3NC, Gold														0	3	G	48.00
Contact Blocks, 1NO+1NC, Gold														1	1	G	32.00
Contact Blocks, 2NO+1NC, Gold														2	1	G	48.00
Contact Blocks, 1NO+2NC, Gold														1	2	G	48.00
5 Block Holder																5	4.00
30mm Black Plastic Adaptor Ring ②	G	1															8.00
30mm Chrome Metal Adaptor Ring ②	G	2															10.00

See catalog number explanation on page 4.

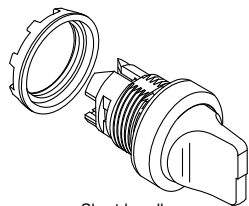
Center position connection detail



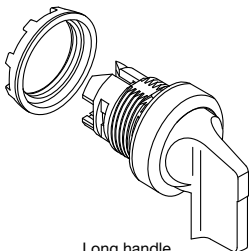
① No contact block in center position.

② For 30mm devices, use Discount Schedule CC.

Selector switches, three position Illuminated ①



Short handle



Long handle

Maintained



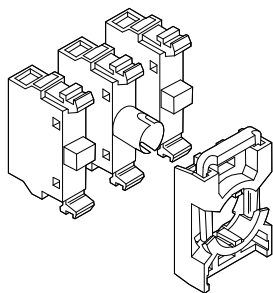
Momentary, spring return
from A to B and from C to B



Momentary, spring return
from C to B



Momentary, spring return
from A to B



Contact functions

Block positions as seen from
operator front.

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

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

Center Position Connection Detail

See page 17.

Selector switches, three-position, illuminated ①

Option	Part number characters																List price
Short/3-Main			M	3	S	S	1	-									\$ 17.00
Short/Spring Return to B			M	3	S	S	2	-									26.00
Short/Main A&B/Spring Return C to B			M	3	S	S	3	-									26.00
Long/3-Main			M	3	S	S	4	-									17.00
Long/Spring Return to B			M	3	S	S	5	-									26.00
Long/Main A&B/Spring Return C to B			M	3	S	S	6	-									26.00
Short/Main B&C/Spring Return A to B			M	3	S	S	7	-									26.00
Long/Main B&C/Spring Return A to B			M	3	S	S	8	-									26.00
Bezel, Black Plastic, with Holder								4									2.00
Bezel, Chrome Metal, with Holder								6									2.00
Illuminated without Lamp Block ②								1									—
Lampblock, MLB-1, Bulb not Included								2									17.50
Lampblock, MLB-2, Bulb not Included								3									21.50
Lampblock, MLB-3, Bulb not Included								4									21.50
Lampblock, MLB-4, Bulb not Included								5									21.50
Lampblock, MLB-5, Bulb not Included								6									21.50
Switch Color - Red								R									—
Switch Color - Green								G									—
Switch Color - Yellow								Y									—
Switch Color - Blue								L									—
Switch Color - Clear								C									—
Contact Blocks, 1NO									1	0							8.00
Contact Blocks, 2NO									2	0							16.00
Contact Blocks, 3NO									3	0							24.00
Contact Blocks, 1NC									0	1							8.00
Contact Blocks, 2NC									0	2							16.00
Contact Blocks, 3NC									0	3							24.00
Contact Blocks, 1NO+1NC									1	1							16.00
Contact Blocks, 2NO+1NC									2	1							24.00
Contact Blocks, 1NO+2NC									1	2							24.00
Contact Blocks, 1NO, Gold									1	0	G						16.00
Contact Blocks, 2NO, Gold									2	0	G						32.00
Contact Blocks, 3NO, Gold									3	0	G						48.00
Contact Blocks, 1NC, Gold									0	1	G						16.00
Contact Blocks, 2NC, Gold									0	2	G						32.00
Contact Blocks, 3NC, Gold									0	3	G						48.00
Contact Blocks, 1NO+1NC, Gold									1	1	G						32.00
Contact Blocks, 2NO+1NC, Gold									2	1	G						48.00
Contact Blocks, 1NO+2NC, Gold									1	2	G						48.00
Filament Bulb, 6V											F	6					6.00
Filament Bulb, 12V											F	7					6.00
Filament Bulb, 24V											F	8					6.00
Filament Bulb, 30V											F	3	0				6.00
Filament Bulb, 48V											F	9					6.00
Filament Bulb, 60V											F	6	0				6.00
Filament Bulb, 110V											F	1	1				6.00
Filament Bulb, 130V											F	1					6.00
LED, 12VDC											L	7					21.00
LED, 24VAC/DC											L	8					15.00
LED, 48VAC/DC											L	9					21.00
LED, 60VAC/DC											L	6	0				21.00
LED, 110-130VAC											L	1					15.00
LED, 110-130VAC/DC											L	1	3				21.00
LED, 230VAC											L	2					21.00
Transformer Block, 110-127/6V, bulb 6V											T	1					41.00
Transformer Block, 220-240/6V, bulb 6V											T	2					41.00
Transformer Block, 380-420/6V, bulb 6V											T	3					41.00
Transformer Block, 440-480/6V, bulb 6V											T	4					41.00
Transformer Block, 500-600/6V, bulb 6V											T	5					41.00
Transformer Block, 110-127/24V, bulb 24V											T	6					41.00
Transformer Block, 220-240/24V, bulb 24V											T	7					41.00
Transformer Block, 380-420/24V, bulb 24V											T	8					41.00
Transformer Block, 440-480/24V, bulb 24V											T	9					41.00
Transformer Block, 110-127/24V, bulb 24V LED											T	L	1				50.00
Transformer Block, 220-240/24V, bulb 24V LED											T	L	2				50.00
Transformer Block, 380-420/24V, bulb 24V LED											T	L	3				50.00
Transformer Block, 440-480/24V, bulb 24V LED											T	L	4				50.00
5 Block Holder																5	4.00
30mm Black Plastic Adaptor Ring ③			G	1													8.00
30mm Chrome Metal Adaptor Ring ③			G	2													10.00

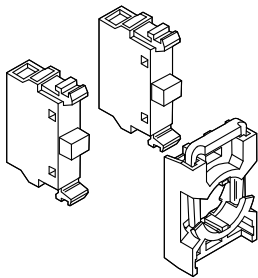
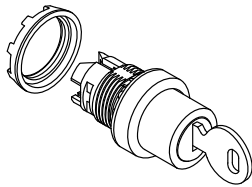
See catalog number explanation on page 4.

- ① No contact block in center position.
- ② No filament bulb, LED or transformer block can be combined with "Illuminated without Lampblock" selection.
- ③ For 30mm devices, use Discount Schedule CC.

Key-operated selector switches

Two & three position ①

Assembled
pilot devices



Two positions ①

Maintained



Momentary, spring return
from C to B



Three positions ①

Maintained



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



Momentary, spring return
from C to B



Momentary, spring return
from C to B



Key-operated selector switches ①

Options	Part number characters													List price
2 Maintained Positions, Key Removable in B and C	M	2	S	S	K	1	-							\$ 41.00
2 Maintained Positions, Key Removable in B	M	2	S	S	K	2	-							41.00
2 Positions, Spring Return from C to B, Key Removable in B	M	2	S	S	K	3	-							41.00
3 Maintained Positions, Key Removable in A, B and C	M	3	S	S	K	1	-							53.00
3 Maintained Positions, Key Removable in B	M	3	S	S	K	2	-							53.00
3 Positions, Spring Return from A and C to B, Key Removable in B	M	3	S	S	K	3	-							53.00
3 Positions, A and B maintained, Spring Return C to B, Key Removable in A	M	3	S	S	K	4	-							53.00
3 Positions, A and B maintained, Spring Return C to B, Key Removable in All Positions.	M	3	S	S	K	5	-							53.00
Bezel, Black Plastic, with Holder							-	4	0					2.00
Bezel, Chrome Metal, with Holder							-	6	0					2.00
Key Code 71							-			1				—
Key Code 72							-			2				—
Key Code 73							-			3				—
Other Key Code							-			4				—
Contact Blocks, 1NO							-			1	0			8.00
Contact Blocks, 2NO							-			2	0			16.00
Contact Blocks, 3NO							-			3	0			24.00
Contact Blocks, 1NC							-			0	1			8.00
Contact Blocks, 2NC							-			0	2			16.00
Contact Blocks, 3NC							-			0	3			24.00
Contact Blocks, 1NO+1NC							-			1	1			16.00
Contact Blocks, 2NO+1NC							-			2	1			24.00
Contact Blocks, 1NO+2NC							-			1	2			24.00
Contact Blocks, 1NO, Gold							-			1	0	G		16.00
Contact Blocks, 2NO, Gold							-			2	0	G		32.00
Contact Blocks, 3NO, Gold							-			3	0	G		48.00
Contact Blocks, 1NC, Gold							-			0	1	G		16.00
Contact Blocks, 2NC, Gold							-			0	2	G		32.00
Contact Blocks, 3NC, Gold							-			0	3	G		48.00
Contact Blocks, 1NO+1NC, Gold							-			1	1	G		32.00
Contact Blocks, 2NO+1NC, Gold							-			2	1	G		48.00
Contact Blocks, 1NO+2NC, Gold							-			1	2	G		48.00
5 Block Holder							-						5	4.00
30mm Black Plastic Adaptor Ring ②	G	1					-							8.00
30mm Chrome Metal Adaptor Ring ②	G	2					-							10.00

See catalog number explanation on page 4.

Extra key

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	

Contact block functions

Block positions as seen from operator front.

Two-position switch

Handle position	Left block	Right block
B	O	O
C	X	X

O = not actuated (normal state)

X = actuated (changed state)

Three-position switch

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

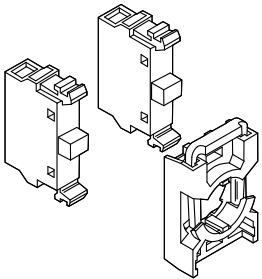
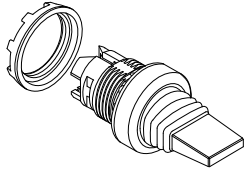
O = not actuated (normal state)

X = actuated (state changed)

① No contact block in center position.

② For 30mm devices, use Discount Schedule CC.

Toggle switches



Maintained



Toggle switches

Options	Part number characters													List price
2 Maintained Positions			M	T	S	1	-							\$ 18.00
3 Positions, Spring Return to Center			M	T	S	2	-							18.00
3 Maintained Positions			M	T	S	3	-							18.00
Bezel, Black, with Holder						-	4	0						2.00
Bezel, Chrome, with Holder						-	6	0						2.00
Switch Color - Black									B					—
Contact Blocks, 1NO						-				1	0			8.00
Contact Blocks, 2NO						-				2	0			16.00
Contact Blocks, 3NO						-				3	0			24.00
Contact Blocks, 1NC						-				0	1			8.00
Contact Blocks, 2NC						-				0	2			16.00
Contact Blocks, 3NC						-				0	3			24.00
Contact Blocks, 1NO+1NC						-				1	1			16.00
Contact Blocks, 2NO+1NC						-				2	1			24.00
Contact Blocks, 1NO+2NC						-				1	2			24.00
Contact Blocks, 1NO, Gold						-				1	0	G		16.00
Contact Blocks, 2NO, Gold						-				2	0	G		32.00
Contact Blocks, 3NO, Gold						-				3	0	G		48.00
Contact Blocks, 1NC, Gold						-				0	1	G		16.00
Contact Blocks, 2NC, Gold						-				0	2	G		32.00
Contact Blocks, 3NC, Gold						-				0	3	G		48.00
Contact Blocks, 1NO+1NC, Gold						-				1	1	G		32.00
Contact Blocks, 2NO+1NC, Gold						-				2	1	G		48.00
Contact Blocks, 1NO+2NC, Gold						-				1	2	G		48.00
5 Block Holder						-							5	4.00
30mm Black Plastic Adaptor Ring ①	G	1				-								8.00
30mm Chrome Metal Adaptor Ring ①	G	2				-								10.00

See catalog number explanation on page 4.

Contact block functions

Block positions as seen from operator front.

Two-position maintained switch

Handle position	Left block	Right block
A	O	O
C	X	X

O = not actuated (normal state)

X = actuated (state changed)

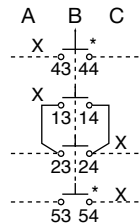
Three-position switch

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

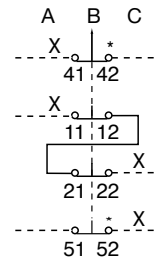
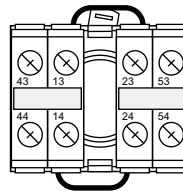
O = not actuated (normal state)

X = actuated (state changed)

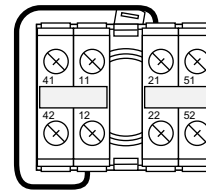
Center position connection detail



* Contacts may be N.O. or N.C.



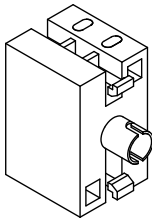
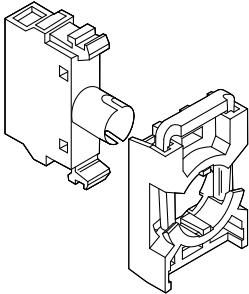
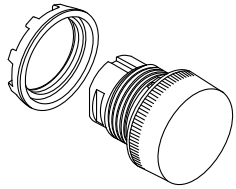
* Contacts may be N.O. or N.C.



① For 30mm devices, use Discount Schedule CC.

Pilot lights

Assembled
pilot devices



Pilot lights

Options	Part number characters															List price
Pilot Light with light diffusing lens		M	L	1	-											\$ 7.50
With Holder					-	2	0									2.00
Lens Color - Red					-			R								—
Lens Color - Green					-			G								—
Lens Color - Yellow					-			Y								—
Lens Color - Blue					-			L								—
Lens Color - White					-			W								—
Lens Color - Clear					-			C								—
Lampblock, MLB-1, Bulb not Included					-				1	0						17.50
Lampblock, MLB-2, Bulb not Included					-				2	0						21.50
Lampblock, MLB-3, Bulb not Included					-				3	0						21.50
Lampblock, MLB-4, Bulb not Included					-				0	1						21.50
Lampblock, MLB-5, Bulb not Included					-				0	2						21.50
Filament Bulb, 6V					-						F	6				6.00
Filament Bulb, 12V					-						F	7				6.00
Filament Bulb, 24V					-						F	8				6.00
Filament Bulb, 30V					-						F	3	0			6.00
Filament Bulb, 48V					-						F	9				6.00
Filament Bulb, 60V					-						F	6	0			6.00
Filament Bulb, 110V					-						F	1	1			6.00
Filament Bulb, 130V					-						F	1				6.00
LED, 12VDC					-						L	7				21.00
LED, 24VAC/DC					-						L	8				15.00
LED, 48VAC/DC					-						L	9				21.00
LED, 60VAC/DC					-						L	6	0			21.00
LED, 110-130VAC					-						L	1				15.00
LED, 110-130VAC/DC					-						L	1	3			21.00
LED, 230VAC					-						L	2				21.00
Transformer Block, 110-127V/6V, bulb 6V					-						T	1				41.00
Transformer Block, 220-240V/6V, bulb 6V					-						T	2				41.00
Transformer Block, 380-420/6V, bulb 6V					-						T	3				41.00
Transformer Block, 440-480/6V, bulb 6V					-						T	4				41.00
Transformer Block, 500-600/6V, bulb 6V					-						T	5				41.00
Transformer Block, 110-127/24V, bulb 24V					-						T	6				41.00
Transformer Block, 220-240/24V, bulb 24V					-						T	7				41.00
Transformer Block, 380-420/24V, bulb 24V					-						T	8				41.00
Transformer Block, 440-480/24V, bulb 24V					-						T	9				41.00
Transformer Block, 110-127/24V, bulb 24V LED					-						TL	1				50.00
Transformer Block, 220-240/24V, bulb 24V LED					-						TL	2				50.00
Transformer Block, 380-420/24V, bulb 24V LED					-						TL	3				50.00
Transformer Block, 440-480/24V, bulb 24V LED					-						TL	4				50.00
5 Block Holder					-										5	4.00
30mm Black Plastic Adaptor Ring ①	G	1			-											8.00
30mm Chrome Metal Adaptor Ring ①	G	2			-											10.00

See catalog number explanation on page 4.

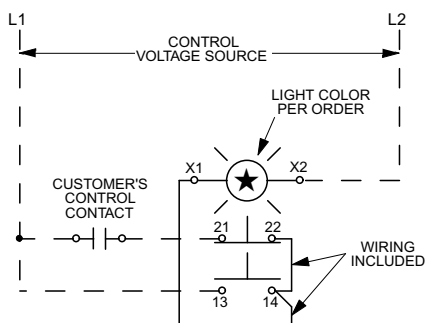
① For 30mm devices, use Discount Schedule CC.

Press to test pilot lights

Press to test pilot lights

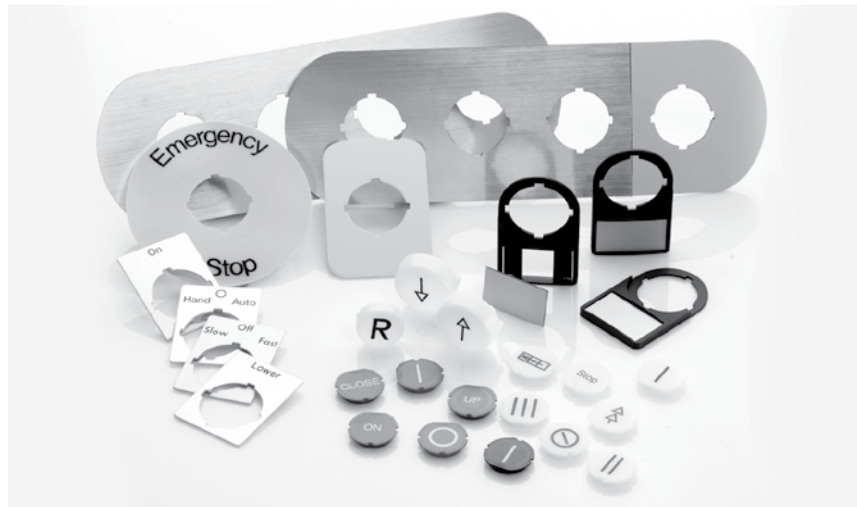
Options	Part number characters										List price
Momentary, Flush			M	P	1	-					\$ 6.10
Momentary, Extended			M	P	3	-					6.10
Bezel, Black Plastic with Holder, 1/1 Contacts						-	KL				18.00
Bezel, Chrome Metal with Holder, 1/1 Contacts						-	ML				18.00
Illuminated without Lamp Block								PT			-
Full Voltage Lamp Block, (select Filament bulb or LED from below)						-		FPT			17.50
Resistor Lamp Block, (select 120V or 240V bulb or LED only)						-		RPT			21.50
Filament bulb, 6V						-			6		6.00
Filament bulb, 12V						-			7		6.00
Filament bulb, 24V						-			8		6.00
Filament bulb, 48V						-			9		6.00
Filament bulb, 120V						-			1		6.00
LED, 12 V AC						-			L7		21.00
LED, 24 V AC/DC						-			L8		15.00
LED, 48 V AC/DC						-			L9		21.00
LED, 60 V AC/DC						-			L60		21.00
LED, 120V AC						-			L1		15.00
LED, 120 V AC/DC						-			L13		21.00
LED, 240 V AC						-			L2		21.00
Transformer Block, 110-127/6V, includes 6V fill. bulb						-			TPT1		41.00
Transformer Block, 220-240/6V, includes 6V fill. bulb						-			TPT2		41.00
Transformer Block, 380-420/6V, includes 6V fill. bulb						-			TPT3		41.00
Transformer Block, 440-480/6V, includes 6V fill. bulb						-			TPT4		41.00
Transformer Block, 500-600/6V, includes 6V fill. bulb						-			TPT5		41.00
Transformer Block, 110-127/24V, includes 24V fill. bulb						-			TPT6		41.00
Transformer Block, 220-240/24V, includes 24V fill. bulb						-			TPT7		41.00
Transformer Block, 380-420/24V, includes 24V fill. bulb						-			TPT8		41.00
Transformer Block, 440-480/24V, includes 24V fill. bulb						-			TPT9		41.00
Transformer Block, 110-127/24V, includes 24V LED						-			TPTL1		50.00
Transformer Block, 220-240/24V, includes 24V LED						-			TPTL2		50.00
Transformer Block, 380-420/24V, includes 24V LED						-			TPTL3		50.00
Transformer Block, 440-480/24V, includes 24V LED						-			TPTL4		50.00
Button Color - Red						-			R		x
Button Color - Green						-			G		x
Button Color - Yellow						-			Y		x
Button Color - Blue						-			L		x
Button Color - White						-			W		x
Button Color - Clear						-			C		x
30mm Black Plastic Adaptor Ring ②	G	1				-					8.00
30mm Chrome Metal Adaptor Ring ②	G	2				-					10.00

Schematic



Press- to-test schematic

① No filament bulb, LED or transformer block can be combined with "Illuminated without Lampblock" selection.
 ② For 30mm devices, use Discount Schedule CC.



Fixed legend plates

- Of silvergrey aluminum for:
 - pushbuttons
 - two-position selector switches
 - three-position selector switches
 - toggle switches
 - customer selected text

Special legend plates

- For emergency stop pushbuttons
- Legend plate with or without customer selected text
- Legend plate holders with inserts of brushed aluminum. With or without text or symbol for:
 - pushbuttons
 - two-position selector switch
 - three position selector switch
 - customer selected text

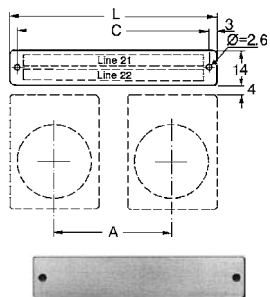
For plastic enclosures:

- Legend plate holders with inserts of brushed aluminum. With or without text or symbol for pushbuttons.
- Legend plates of silver-grey brushed plastic for 1, 2, 3, 4 or 6-seat plastic enclosures. With or without text or symbol for:
 - pushbuttons

Text caps

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

Special legend plates



Legend plates without or with customer-selected text

Of brushed aluminum

Number of operations	Max. number of characters per line	Dimensions			Without text Catalog No.	List Price	With text Catalog No.	List Price
		A	L	C				
1	7	-	29.6	23.6	SK 615 545-1	\$ 6.00	SK 615 998-1	\$ 12.00
2	20	30.5	60	54	SK 615 545-2		SK 615 998-2	
2	24	40	70	64	SK 615 545-3		SK 615 998-3	
3	33	30.5	90	84	SK 615 545-4		SK 615 998-4	
3	42	40	110	104	SK 615 545-5		SK 615 998-5	

See page 25 for engraved custom legend plates order form.

Special legend plates

Legend
plates

ENGRAVED LEGEND PLATE FORM

PAGE: ____ OF: ____

ORDER DATE: _____

ORDER NUMBER: _____

ISSUED BY: _____

ORDER QTY: _____

ALL CAPITALS? YES NO

SHIPPING METHOD: _____

REMARKS: _____

DUE DATE: ____ - ____ - ____

To be completed by ABB personnel:

ENGRAVER: _____

Q.C. INSPECTION: _____

PRINT INFORMATION TO BE ENGRAVED

MAX 7
CHARAC-
TERS PER
LINE

SK 615 545-1

SK 615 545-2

MAXIMUM OF 20
CHARACTERS PER LINE

SK 615 545-3

MAXIMUM OF 24
CHARACTERS PER LINE

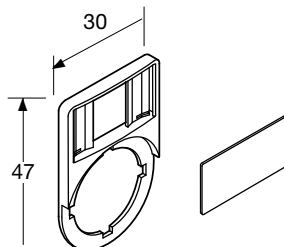
SK 615 545-4

MAXIMUM OF 33
CHARACTERS PER LINE

SK 615 545-5

MAXIMUM OF 44
CHARACTERS PER LINE

Custom engraved inserts for legend plate holders 22mm



Nameplate Inserts — Brushed aluminum

Type	Maximum letters per line	Catalog number	List price
 1 line	11	MP-NP19-01	\$ 5.90
 2 lines	11	MP-NP19-02	
 2 position selector switch	5	MP-NP19-03	
 3 position selector switch	5	MP-NP19-04	
 2 position selector switch	5	MP-NP19-05	

General specifications

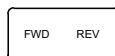
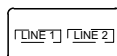
1. All characters are 1/8" high, upper & lower case. Please specify if all capital letters are desired.
2. The legend plate inserts and the fixed legend plates are silver-grey anodized aluminum.
3. All special engravings involve engraving the desired lettering into the metal surface and then treating the engraved surfaces with black ink.

EXAMPLE:

MP-NP19-05

1: FWD

2: REV



"MP-NP19" is the blank legend plate catalog number. "-05" refers to the layout of text (see dimension illustrations).

Legend Plate order form

See page 27 for engraved custom legend plate order form.

Engraved legend plate form
Custom engraved nameplates
for 22mm holder

Legend
plates

ENGRAVED LEGEND PLATE FORM

PAGE: ____ OF: ____

MP-NP19- ____ (BRUSHED ALUMINUM ONLY)

ORDER DATE: _____

ISSUED BY: _____

ALL CAPITALS? YES NO

REMARKS: _____

ORDER NUMBER: _____

ORDER: QTY: _____

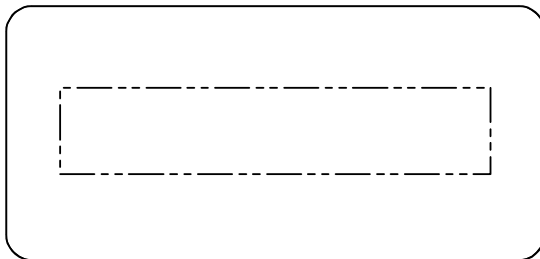
SHIPPING METHOD: _____

DUE DATE: ____ - ____ - ____

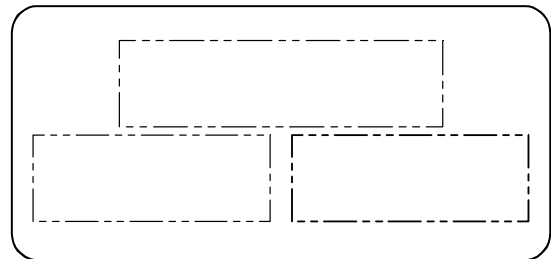
To be completed by ABB Personnel:
ENGRAVER: _____

Q.C. INSPECTION: _____

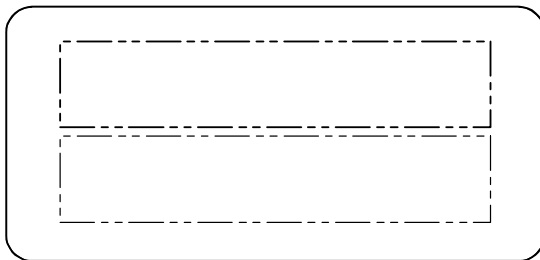
PRINT INFORMATION TO BE ENGRAVED



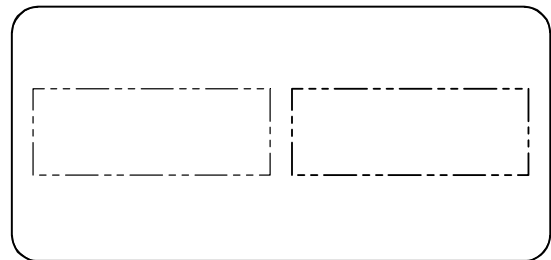
MP-NP19-01



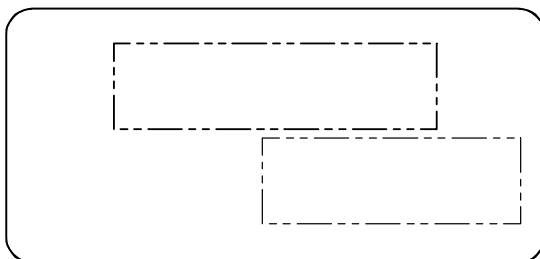
MP-NP19-04



MP-NP19-02



MP-NP19-05



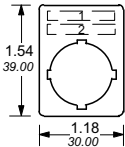
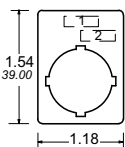
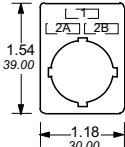
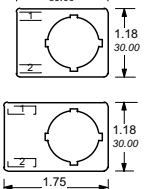
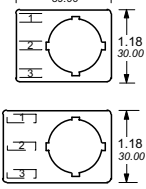
MP-NP19-03

MP-NP19: REV. A
03/04/05

Custom engraved nameplates

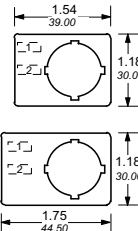
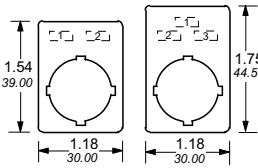
22mm, brushed aluminum

Fixed nameplates — brushed aluminum

Type	Maximum letters per line	Catalog number	List price
 Pushbuttons or pilot lights	11 39mm	MP-NPE28-01	\$ 6.50
	11 44.5mm	MP-NPE29-01	
 2 Position selector switches	5 39mm	MP-NPE28-02	
	11 (line 1) 5 (line 2) 5 (line 3) 44.5mm	MP-NPE29-02	
 3 Position selector switches	5 39mm	MP-NPEE28-03	
	11 (line 1) 5 (line 2) 5 (line 3A) 5 (line 3B) 44.5mm	MP-NPE29-03	
 2 Position toggle switches	4 39mm	MP-NPE28-04	
	5 44.5mm	MP-NPE29-04	
 3 Position toggle switches	39mm	MP-NPE28-05	
	44.5mm	MP-NPE29-05	



Fixed Nameplates — aluminum

Type	Maximum letters per line	Catalog number	List price
 Pushbuttons or pilot lights	11 39mm	MP-NPE28-06	\$ 6.50
	11 44.5mm	MP-NPE29-06	
 2 Position selector switches	5 39mm	MP-NPE28-07	
	11 (line 1)	MP-NPE29-07	

General specifications

1. All characters are 1/8" high, upper & lower case. Please specify if all capital letters are desired.
2. The legend plate inserts and the fixed legend plates are silver-grey anodized aluminum.
3. All special engravings involve engraving the desired lettering into the metal surface and then treating the engraved surfaces with black ink.

Ordering custom engraved nameplates

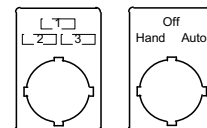
1. Select the desired legend plate.
2. Indicate the catalog number.
3. Write the desired words to be engraved on each line.

EXAMPLE:

MP-NPE28P-03

- 1: OFF
- 2: HAND
- 3: AUTO

"MP-NPE28P" is the blank legend plate catalog number. "B" indicates that the back side of the plate is to be engraved. "-03" refers to the layout of text (see dimension illustrations above).



Engraved legend plate form
Custom engraved nameplates
22mm

Legend
plates

ENGRAVED LEGEND PLATE FORM

PAGE: ____ OF: ____

MP-NPE28-____ (BRUSHED ALUMINUM ONLY)

ORDER DATE: _____

ISSUED BY: _____

ALL CAPITALS? YES NO

REMARKS: _____

ORDER NUMBER: _____

ORDER: QTY: _____

SHIPPING METHOD: _____

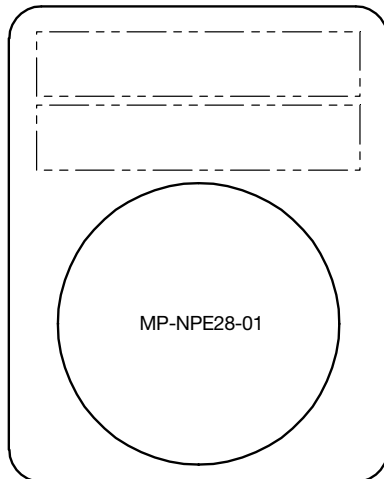
DUE DATE: ____ - ____ - ____

To be completed by ABB Personnel

ENGRAVER: _____

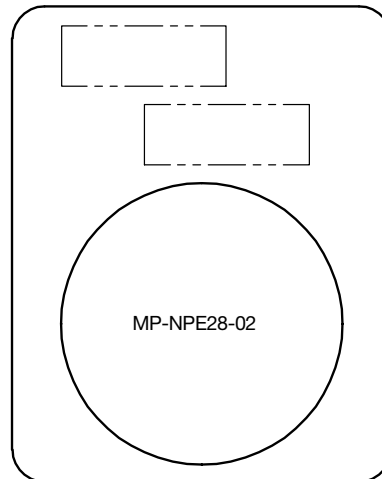
Q.C. INSPECTION: _____

PRINT INFORMATION TO BE ENGRAVED



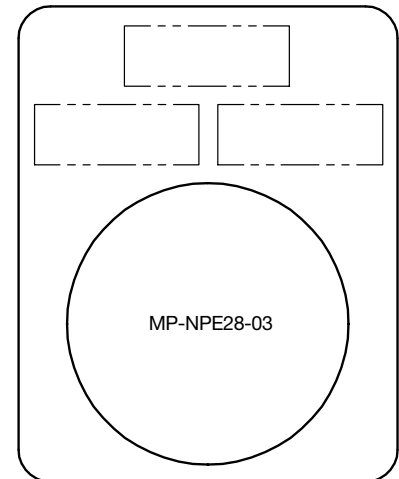
MP-NPE28-01

Legend plate template MP-NPE28-01: A rectangular plate with rounded corners. It features a large circle in the center. Above the circle, there are two horizontal dashed rectangular boxes for engraving.



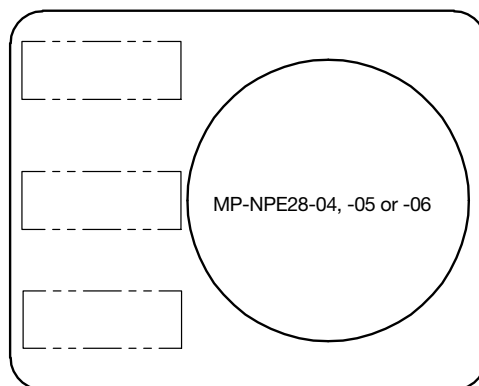
MP-NPE28-02

Legend plate template MP-NPE28-02: A rectangular plate with rounded corners. It features a large circle in the center. Above the circle, there are two horizontal dashed rectangular boxes for engraving.



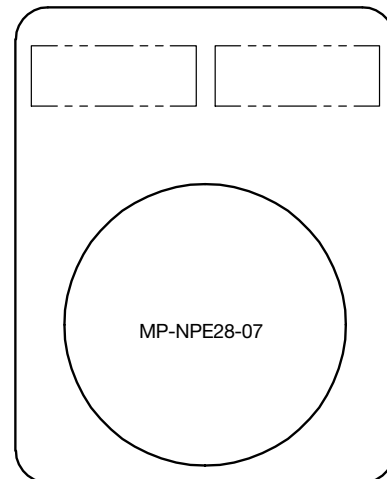
MP-NPE28-03

Legend plate template MP-NPE28-03: A rectangular plate with rounded corners. It features a large circle in the center. Above the circle, there are two horizontal dashed rectangular boxes for engraving.



MP-NPE28-04, -05 or -06

Legend plate template MP-NPE28-04, -05 or -06: A rectangular plate with rounded corners. It features a large circle in the center. To the left of the circle, there are three horizontal dashed rectangular boxes for engraving.



MP-NPE28-07

Legend plate template MP-NPE28-07: A rectangular plate with rounded corners. It features a large circle in the center. Above the circle, there are two horizontal dashed rectangular boxes for engraving.

MP-NPE28

5/26/04

Engraved legend plate form

Custom engraved nameplates

22mm

ENGRAVED LEGEND PLATE FORM

PAGE: ____ OF: ____

MP-NPE29- ____ (BRUSHED ALUMNINUM ONLY)

ORDER DATE: _____

ISSUED BY: _____

ALL CAPITALS? YES NO

REMARKS: _____

ORDER NUMBER: _____

ORDER: QTY: _____

SHIPPING METHOD: _____

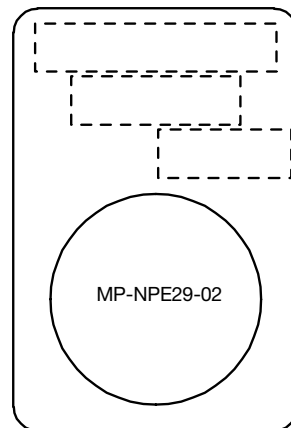
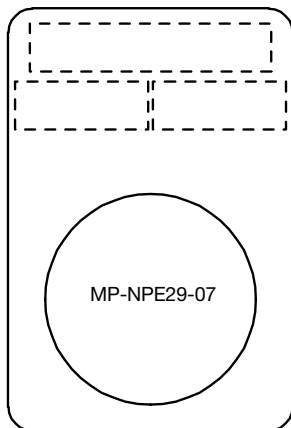
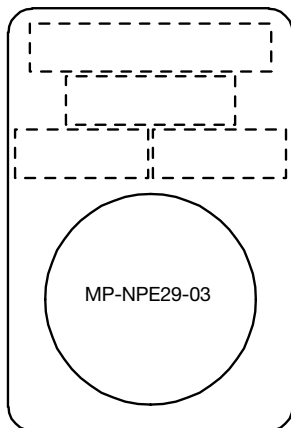
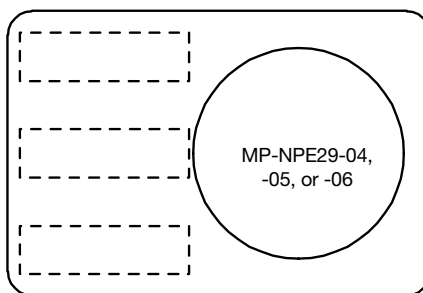
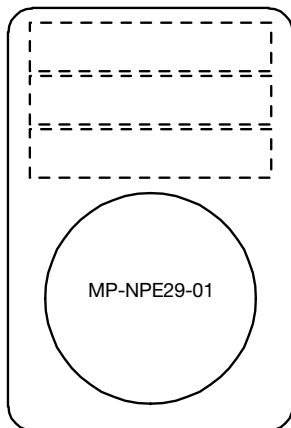
DUE DATE: ____ - ____ - ____

To be completed by ABB personnel.

ENGRAVER: _____

Q.C. INSPECTION: _____

PRINT INFORMATION TO BE ENGRAVED



Engraved legend plate form
Custom engraved nameplates
30mm

Legend
plates

ENGRAVED LEGEND PLATE FORM

PAGE: ____ OF: ____

G1 MP-NPE28-____ (BRUSHED ALUMINUM ONLY)

ORDER DATE: _____

ISSUED BY: _____

ALL CAPITALS? YES NO

REMARKS: _____

ORDER NUMBER: _____

ORDER: QTY: _____

SHIPPING METHOD: _____

DUE DATE: ____ - ____ - ____

To be completed by ABB Personnel

ENGRAVER: _____

Q.C. INSPECTION: _____

PRINT INFORMATION TO BE ENGRAVED

Legend plate template for G1 MP-NPE28-01. The plate features a large central circle with the text "G1 MP-NPE28-01" inside. Above the circle, there are two dashed rectangular boxes for additional information.

Legend plate template for G1 MP-NPE28-02. The plate features a large central circle with the text "G1 MP-NPE28-02" inside. Above the circle, there are two dashed rectangular boxes for additional information.

Legend plate template for G1 MP-NPE28-03. The plate features a large central circle with the text "G1 MP-NPE28-03" inside. Above the circle, there are two dashed rectangular boxes for additional information.

Legend plate template for G1 MP-NPE28-04, -05 or -06. The plate features a large central circle with the text "G1 MP-NPE28-04, -05 or -06" inside. To the left of the circle, there are three dashed rectangular boxes for additional information.

Legend plate template for G1 MP-NPE28-07. The plate features a large central circle with the text "G1 MP-NPE28-07" inside. Above the circle, there are two dashed rectangular boxes for additional information.

G1 MP-NPE28
6/10/04

Engraved legend plate form

Custom engraved nameplates

30mm

ENGRAVED LEGEND PLATE FORM

PAGE: ____ OF: ____

G1 MP-NPE29-____ (BRUSHED ALUMNINUM ONLY)

ORDER DATE: _____

ISSUED BY: _____

ALL CAPITALS? YES NO

REMARKS: _____

ORDER NUMBER: _____

ORDER: QTY: _____

SHIPPING METHOD: _____

DUE DATE: ____ - ____ - ____

To be completed by ABB Personnel:

ENGRAVER: _____

Q.C. INSPECTION: _____

PRINT INFORMATION TO BE ENGRAVED

G1 MP-NPE29-01

G1 MP-NPE29-02

G1 MP-NPE29-03

G1 MP-NPE29-04,
-05 or -06

G1 MP-NPE29-07

G1 MP-NPE29

6/10/04

Text cap inserts

Legend
plates

Legend	Cap color ①	Suffix code ②	Flush button catalog number	Extended button catalog number	Pilot light catalog number	List price
	White	C82	1SFA616901R9036	—	—	\$.90
Start	White	C67	1SFA616901R2030	1SFA616902R2030	1SFA616903R2030	
START	Green	C5	1SFA616906R1042	—	—	
	Black	C81	1SFA616908R1042	—	—	
On	White	C68	1SFA616901R1020	1SFA616902R1020	1SFA616903R1020	
ON	White	C69	1SFA616901R1039	—	1SFA616903R1039	
	Green	C70	1SFA616906R1039	—	—	
	Black	C1	1SFA616908R1030	—	—	
Off	White	C71	1SFA616901R1019	1SFA616902R1019	1SFA616903R1019	
	White	C72	—	1SFA616902R1040	—	
	Red	C73	—	1SFA616905R1040	—	
OFF	Black	C2	1SFA616908R1040	1SFA616909R1040	—	
	White	C74	1SFA616901R1031	1SFA616902R1031	1SFA616903R1031	
STOP	Red	C4	1SFA616904R1047	1SFA616905R1047	—	
Reset	White	C75	1SFA616901R1025	1SFA616902R1025	1SFA616903R1025	
Blank	White	C15	1SFA616901R9000	1SFA616902R9000	1SFA616903R9000	
	Green	CG	2949 1468-2	2949 1469-2	—	
UP	Green	C11	1SFA616906R1043	—	—	
DOWN	Green	C12	1SFA616906R1044	—	—	
OPEN	White	C16	1SFA616901R1045	—	—	
	Green	C19	1SFA616906R1045	—	—	
CLOSE	White	C17	1SFA616901R1046	—	—	
	Green	C20	1SFA616906R1046	—	—	
REV	Green	C6	1SFA616906R1048	—	—	
FWD	Green	C7	1SFA616906R1049	—	—	
SLOW	Green	C8	1SFA616906R1050	—	—	
FAST	Green	C9	1SFA616906R1051	—	—	
JOG	Green	C10	1SFA616906R1052	—	—	
RESET	Black	C3	1SFA616908R1041	—	—	
LATCH	White	C18	1SFA616901R1053	—	—	



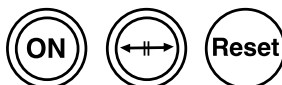
Flush
pushbutton



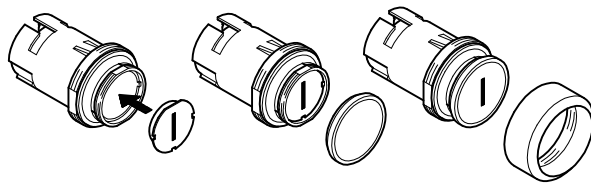
Extended
pushbutton



Pilot light



Examples of inserts



1

2

3

Insert assembly

① Illuminated pushbuttons and pilot lights must use white insert.

Text cap inserts

Text caps for illuminated pushbuttons and pilot lights

Flush button Extended button



Can be turned 90° or 180°

Pilot light



Text/Symbol ^①	Cap color ^②	Suffix	Flush button Catalog No.	Extended button Catalog No.	Pilot light Catalog No.	List Price
→→	White	C14	1SFA 616 901 R9006	1SFA 616 902 R9006	1SFA 616 903 R9006	\$.90
O	White	C21	1SFA 616 901 R9004	1SFA 616 902 R9004	1SFA 616 903 R9004	
	Red	C22	1SFA 616 904 R9004	1SFA 616 905 R9004	-	
	Black	C23	1SFA 616 908 R9004	-	-	
I	White	C24	1SFA 616 901 R9002	1SFA 616 902 R9002	1SFA 616 903 R9002	
	Green	C25	1SFA 616 906 R9002	-	-	
	Black	C26	1SFA 616 908 R9002	-	-	
II	White	C27	1SFA 616 901 R9003	1SFA 616 902 R9003	1SFA 616 903 R9003	
	Green	C28	1SFA 616 906 R9003	-	-	
	Black	C29	1SFA 616 908 R9003	-	-	
III	White	C30	1SFA 616 901 R9028	1SFA 616 902 R9028	-	
	Black	C31	1SFA 616 908 R9028	-	-	
+	White	C32	1SFA 616 901 R9011	1SFA 616 902 R9011	-	
	Green	C33	1SFA 616 906 R9011	-	-	
	Black	C34	1SFA 616 908 R9011	-	-	
-	White	C35	1SFA 616 901 R9012	-	-	
	Red	C36	1SFA 616 904 R9012	-	-	
	Black	C37	1SFA 616 908 R9012	-	-	
↑	White	C38	1SFA 616 901 R9005	1SFA 616 902 R9005	1SFA 616 903 R9005	
	Black	C39	1SFA 616 908 R9005	-	-	
↗	White	C40	1SFA 616 901 R9014	1SFA 616 902 R9014	-	
	Black	C41	1SFA 616 908 R9014	-	-	
↔	White	C42	1SFA 616 901 R9015	1SFA 616 902 R9015	-	
	Black	C43	1SFA 616 908 R9015	-	-	
↔↔	White	C44	1SFA 616 901 R9016	1SFA 616 902 R9016	-	
	Black	C45	1SFA 616 908 R9016	-	-	
→	White	C46	1SFA 616 901 R9017	1SFA 616 902 R9017	-	
	Black	C47	1SFA 616 908 R9017	-	-	
⊕	White	C47	1SFA 616 901 R9018	1SFA 616 902 R9018	-	
	Black	C48	1SFA 616 908 R9018	-	-	
●	White	C49	1SFA 616 901 R9019	1SFA 616 902 R9019	-	
	Black	C50	1SFA 616 908 R9019	-	-	
⊙	White	C51	1SFA 616 901 R9020	1SFA 616 902 R9020	-	
	Black	C52	1SFA 616 908 R9020	-	-	
✋	White	C53	1SFA 616 901 R9021	1SFA 616 902 R9021	-	
	Black	C54	1SFA 616 908 R9021	-	-	
⋈	White	C55	1SFA 616 901 R9022	1SFA 616 902 R9022	-	
	Black	C56	1SFA 616 908 R9022	-	-	
⋈⋈	White	C57	1SFA 616 901 R9023	1SFA 616 902 R9023	-	
	Black	C58	1SFA 616 908 R9023	-	-	
⚓	White	C59	1SFA 616 901 R9024	1SFA 616 902 R9024	-	
	Black	C60	1SFA 616 908 R9024	-	-	
↑	White	C61	1SFA 616 901 R9025	1SFA 616 902 R9025	-	
	Black	C62	1SFA 616 908 R9025	-	-	
↓	White	C63	1SFA 616 901 R9026	1SFA 616 902 R9026	-	
	Black	C64	1SFA 616 908 R9026	-	-	
⚡	White	C65	1SFA 616 901 R9027	1SFA 616 902 R9027	-	
	Black	C66	1SFA 616 908 R9027	-	-	

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

② Add "E" for extended button or "P" for pilot light to end of catalog number.

Special legend plates

Blank & custom engraved for plastic enclosures

22mm

Legend
plates

Blank legend plates for plastic enclosures for 1, 2, 3, 4 or 6-seat

Description	Catalog No.	List Price
Of brushed silver-grey plastic		
1-seat	1SFA 611 930 R1000	\$ 12
2-seat	1SFA 611 930 R1002	15
3-seat	1SFA 611 930 R1003	18
4-seat	1SFA 611 930 R1004	21
6-seat	1SFA 611 930 R1005	27
Of brushed silver-grey plastic (Pos. 1 Yellow)		
2-seat	1SFA 611 930 R1006	20
3-seat	1SFA 611 930 R1007	23
4-seat	1SFA 611 930 R1008	26
6-seat	1SFA 611 930 R1009	32

Standard legend plates for plastic enclosures

Description	Catalog No.	List Price
Symbol/Text Pos 1 / 2 / 3		
Of silver-grey plastic		
1-seat, OFF	1SFA 611 930 R1012	\$ 17
1-seat, ON	1SFA 611 930 R1013	17
2-seat, OFF/ON	1SFA 611 930 R1014	20
3-seat, OFF/ON/RUN	1SFA 611 930 R1015	23
3-seat, HAND/OFF/AUTO	1SFA 611 930 R1016	23

Custom engraved legend plates for plastic enclosures For 1, 2, 3, 4 or 6-seat

Fill in appropriate templates on the following pages when ordering

Description	Name Plate	Catalog No.	List Price
Custom engraved 1-seat	1SFA 611 930 R1000	CUSTOM 1 SEAT	\$ 24
Custom engraved 2-seat	1SFA 611 930 R1002	CUSTOM 2 SEAT	30
Custom engraved 3-seat	1SFA 611 930 R1003	CUSTOM 3 SEAT	36
Custom engraved 4-seat	1SFA 611 930 R1004	CUSTOM 4 SEAT	42
Custom engraved 6-seat	1SFA 611 930 R1005	CUSTOM 6 SEAT	54
Custom engraved 2-seat, position 1 yellow	1SFA 611 930 R1006	CUSTOM 2 SEAT Y	40
Custom engraved 3-seat, position 1 yellow	1SFA 611 930 R1007	CUSTOM 3 SEAT Y	46
Custom engraved 4-seat, position 1 yellow	1SFA 611 930 R1008	CUSTOM 4 SEAT Y	52
Custom engraved 6-seat, position 1 yellow	1SFA 611 930 R1009	CUSTOM 6 SEAT Y	64

Engraved legend plate form

Custom engraved nameplates

1-Seat, vertical

ENGRAVED LEGEND PLATE FORM

PAGE ____ of ____

CUSTOM 1 SEAT
(silver-grey brushed plastic)

ORDER NUMBER : _____

ORDER QTY: _____

SHIPPING METHOD _____

DUE DATE: ____ / ____ / ____

ALL CAPITALS? YES NO

ORDER DATE: _____

ISSUED BY _____

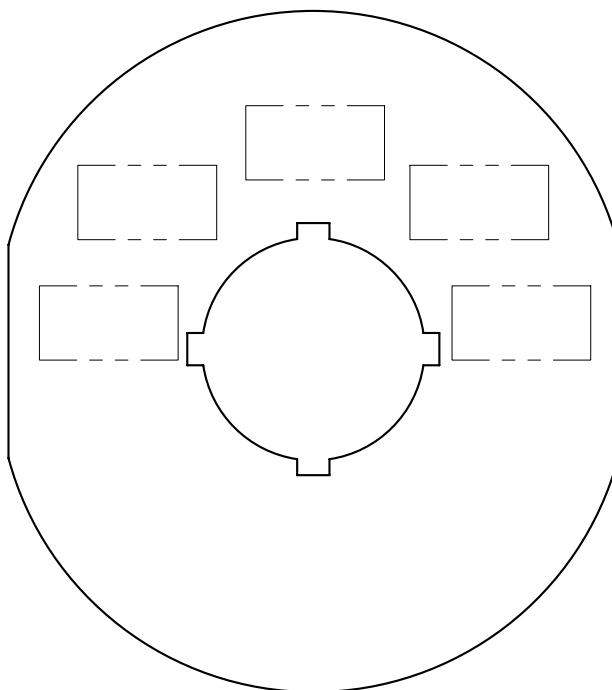
REMARKS : _____

To be completed by ABB personnel.

ENGRAVER _____

Q.C. INSPECTION: _____

PRINT INFORMATION TO BE ENGRAVED:



Engraved legend plate form
Custom engraved nameplates
1-Seat, horizontal

Legend
plates

ENGRAVED LEGEND PLATE FORM

PAGE ____ of ____

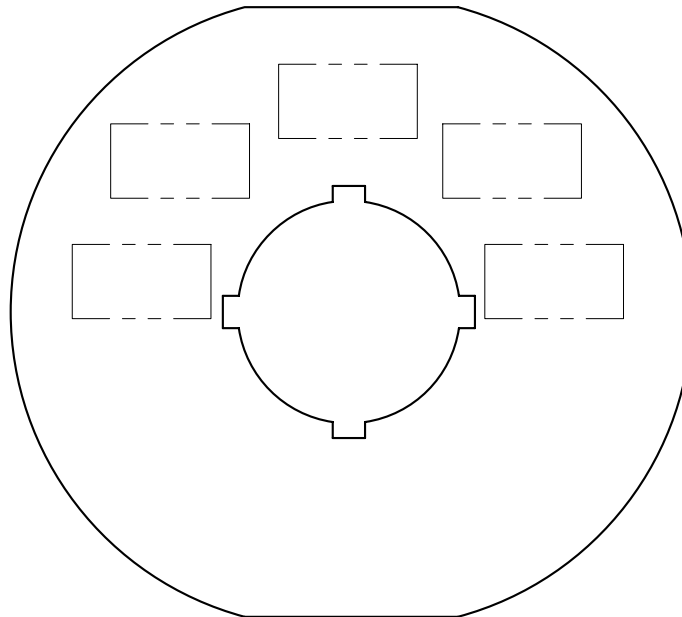
CUSTOM 1 SEAT
(silver-grey brushed plastic)

ORDER NUMBER : _____ ORDER QTY: _____
SHIPPING METHOD _____ DUE DATE: ____ / ____ / ____
ALL CAPITALS? YES NO
ORDER DATE: _____ ISSUED BY _____
REMARKS: _____

To be completed by ABB personnel.

ENGRAVER _____ Q.C. INSPECTION: _____

PRINT INFORMATION TO BE ENGRAVED:



Engraved legend plate form

Custom engraved nameplates

2-Seat, vertical

ENGRAVED LEGEND PLATE FORM

PAGE ____ of ____

CIRCLE ONE: CUSTOM 2 SEAT
(silver-grey aluminum)

CUSTOM 2 SEAT Y
(position 1 yellow)

ORDER NUMBER : _____

ORDER QTY: _____

SHIPPING METHOD _____

DUE DATE: ____ / ____ / ____

ALL CAPITALS? YES NO

ORDER DATE: _____

ISSUED BY _____

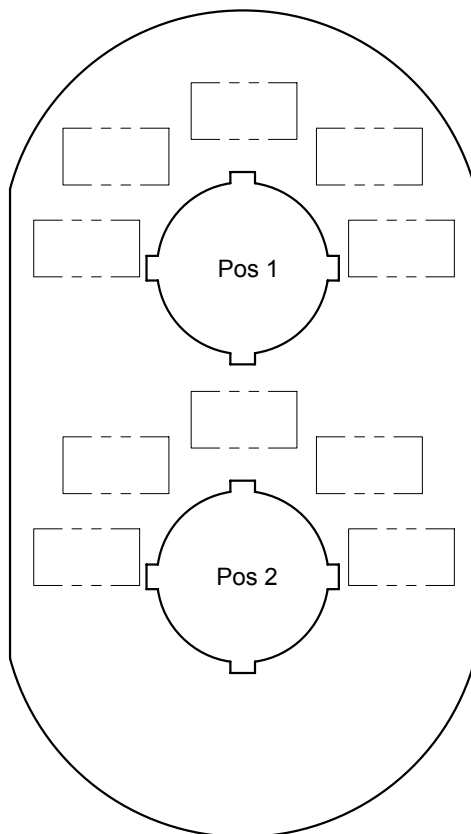
REMARKS : _____

To be completed by ABB personnel.

ENGRAVER _____

Q.C. INSPECTION: _____

PRINT INFORMATION TO BE ENGRAVED:



Engraved legend plate form

Custom engraved nameplates

3-Seat, vertical

Legend
plates

ENGRAVED LEGEND PLATE FORM

PAGE ____ of ____

CIRCLE ONE: CUSTOM 3 SEAT
(silver-grey aluminum)

CUSTOM 3 SEAT Y
(position 1 yellow)

ORDER NUMBER : _____

ORDER QTY: _____

SHIPPING METHOD _____

DUE DATE: ____ / ____ / ____

ALL CAPITALS? YES NO

ORDER DATE: _____

ISSUED BY _____

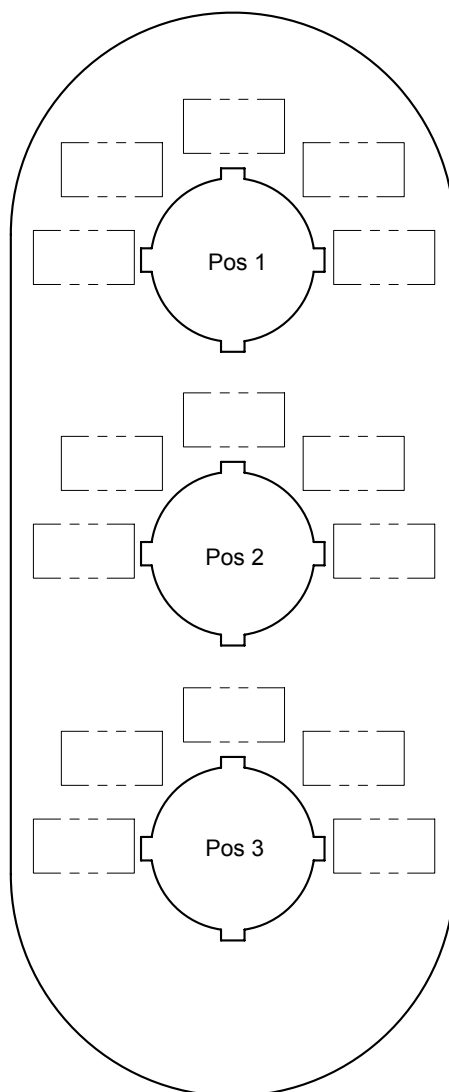
REMARKS : _____

To be completed by ABB personnel.

ENGRAVER _____

Q.C. INSPECTION: _____

PRINT INFORMATION TO BE ENGRAVED:



Engraved legend plate form

Custom engraved nameplates

4-Seat, vertical

ENGRAVED LEGEND PLATE FORM

PAGE ____ of ____

CIRCLE ONE: CUSTOM 4 SEAT
(silver-grey aluminum)

CUSTOM 4 SEAT Y
(position 1 yellow)

ORDER NUMBER : _____

ORDER QTY: _____

SHIPPING METHOD _____

DUE DATE: ____ / ____ / ____

ALL CAPITALS? YES NO

ORDER DATE: _____

ISSUED BY _____

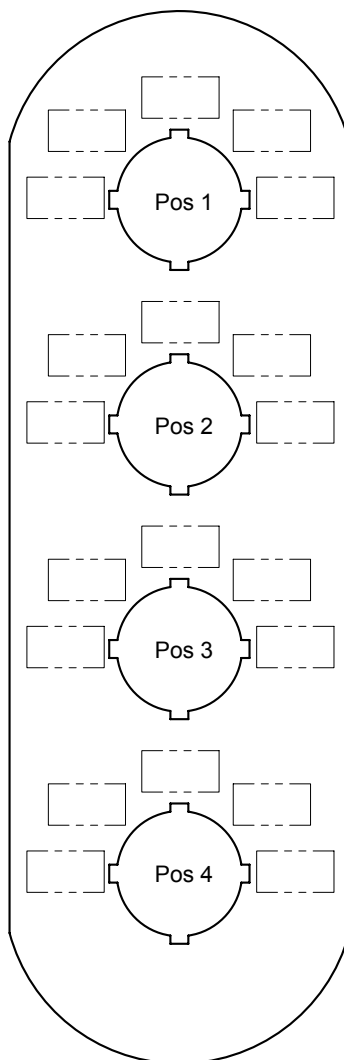
REMARKS: _____

To be completed by ABB personnel

ENGRAVER _____

Q.C. INSPECTION: _____

PRINT INFORMATION TO BE ENGRAVED:



Engraved legend plate form
Custom engraved nameplates
6-Seat, vertical

Legend
plates

ENGRAVED LEGEND PLATE FORM

PAGE ____ of ____

CIRCLE ONE: CUSTOM 6 SEAT CUSTOM 6 SEAT Y
 (silver-grey aluminum) (position 1 yellow)

ORDER NUMBER : _____ ORDER QTY: _____

SHIPPING METHOD _____ DUE DATE: ____ / ____ / ____

ALL CAPITALS? YES NO

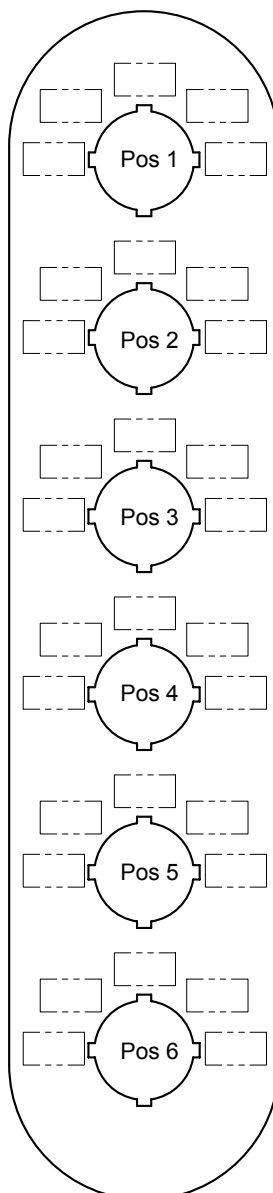
ORDER DATE: _____ ISSUED BY _____

REMARKS : _____

To be completed by ABB personnel.

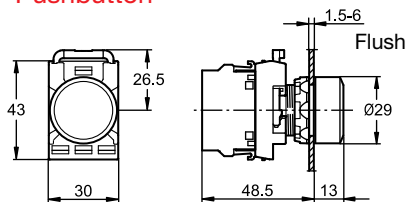
ENGRAVER _____ Q.C. INSPECTION: _____

PRINT INFORMATION TO
BE ENGRAVED:

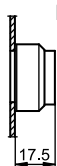


Approximate dimensions Modular range

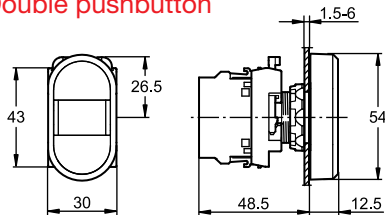
Pushbutton



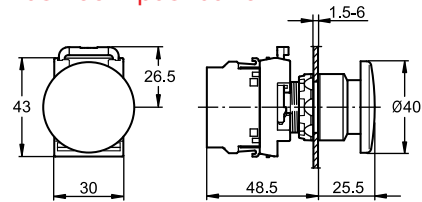
Extended



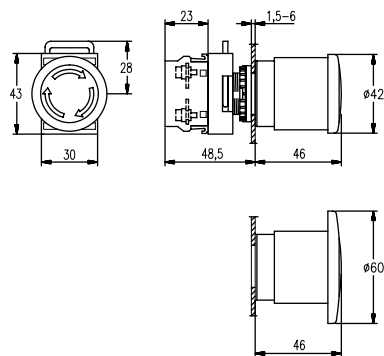
Double pushbutton



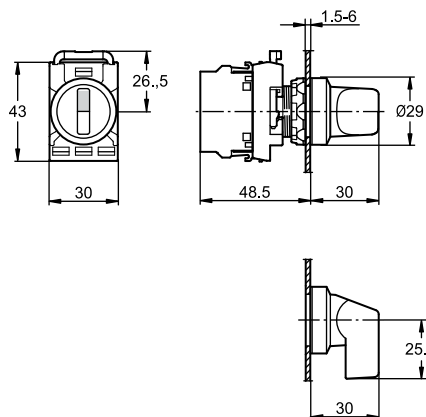
Mushroom pushbutton



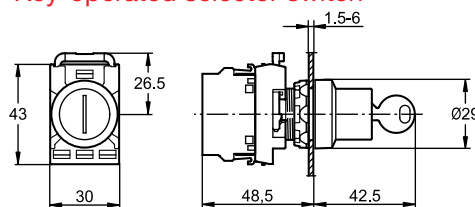
Emergency stop pushbutton



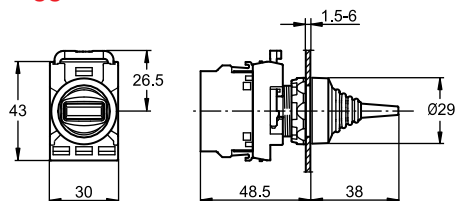
Selector switch



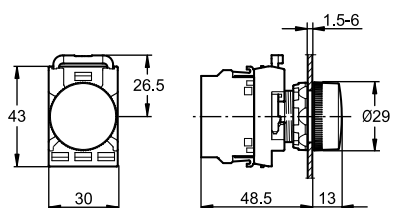
Key-operated selector switch



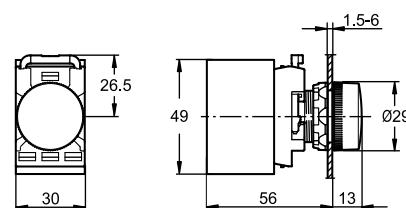
Toggle switch



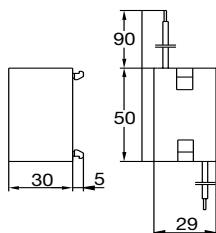
Pilot light



Pilot light with transformer



Transformer block



Explanation of part numbers Modular pilot devices

Assembled
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

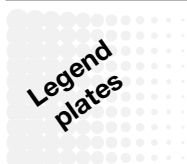
Example 4: Type **MCBH-10**

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 NO
20 2 NC

M = "Generation" M, Modular range



Color selection

Color selection according to IEC 60204-1

IEC 60204-1 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 EMERGENCY STOP / 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** and **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.





Notes



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