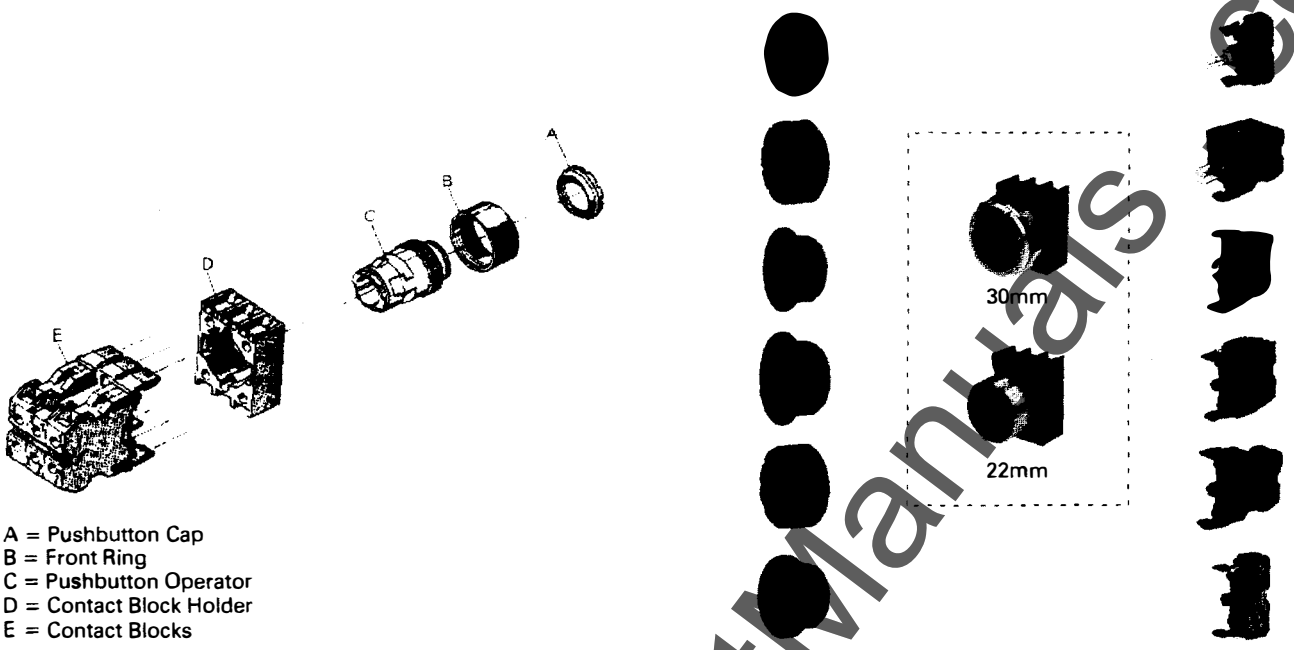
Siemens Pilot Devices



A = Pushbutton Cap
B = Front Ring
C = Pushbutton Operator
D = Contact Block Holder
E = Contact Blocks

Parts common to 22mm and 30mm Pilot Devices.

Description

The pilot devices components are designed to interchange parts between the 22mm and 30mm for greater flexibility.

The pilot devices are available as components and are easily assembled in the field. Some are partially assembled where contact blocks or lampholders can be added. The assembled units are ready for installation.

22mm Mounting

The operator is inserted into the hole in the panel from the front and twisted into the contact block holder. The unit is then tightened from behind by means of two set screws which are located in the contact block holder, preventing the unit from getting loose or twisting.

30mm Mounting

The holder is an integral part of the actuator; it is inserted into the hole in the panel from the rear and secured from the front by means of a front ring. With the use of a legend plate or the thrust and trim washers the unit becomes stationary and will not twist or get loose.

Applications

Devices are heavy duty oiltight, watertight and dust-tight (NEMA Type 4, 4X, 13, IP65). They are used in industrial control circuits at 600V or less.

Front Rings

Units are supplied as standard with metal chrome plated front rings. Black plastic or anodized aluminum rings are optional at no additional cost. The plastic rings are recommended for use where the atmosphere may be corrosive.

LED Indicating Lights

Pilot devices are available with LED lights. Since LED's consume less power, their life is 10 to 20 times than that of conventional incandescent lamps. They also provide greater resistance to shock and vibration. Where lamp integrity and low maintenance is crucial the 3SB0 LED indicator is your best choice.

Contact Blocks

One line of contact blocks fits both 22mm and 30mm devices, reducing required stock levels. All have parallel double break contacts with wiping action, and reliability nibs to insure long, maintenance-free operation. The design is also well suited to low energy circuits common on programmable controller interfaces. Blocks snap side-by-side on the holder and lock in place. The contact block holder is available in 3 and 5 position versions, eliminating the need for piggyback contacts which are hard to wire and prone to failure. Terminals meet the "touchsafe" requirements of IEC standards and are clearly marked. Wire funnels, screwdriver guides and captive terminal screws make the contacts easy to wire, while self-lifting spring washers insure that the wire stays put under severe vibration.

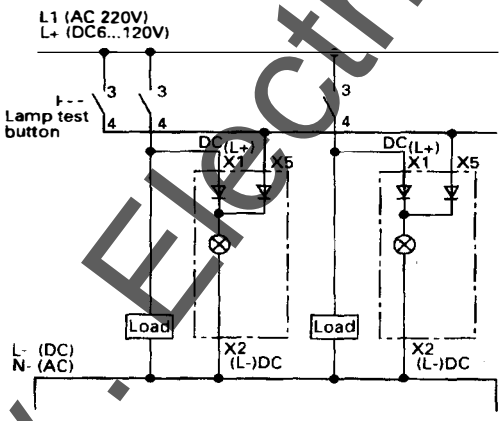
Special contact blocks are available for solder connection to printed circuit boards. When used with the special operator adaptor they present a unique solution to multiple button operator panels.

Technical Ⓤ and Ⓒ Ratings

Rated Voltage		**Insulation Rating**	
for 1 NO + 1 NC, 2 NO, 2 NC	600V AC max., above 300V AC same polarity	1 NO + 1 NC, 2 NO, 2 NC (screw term.)	600V AC, 300V DC
for 1 NC or 1 NO	600V AC max.		
Lampholder	For lamps with BA 9s base, max. 125V; 2.5 W	1 NO or 1 NC (screw terminals)	600V AC, 300V DC
Lampholder using resistor	For max. 240V AC		
Lampholder with 60 Hz transformer	120, 240, 480, 575V/6V, 60 Hz, 1VA	BA 9s lampholder	250V; 2.5 W
Continuous Current	10 A		
Switching Capacity	10 A, heavy duty		

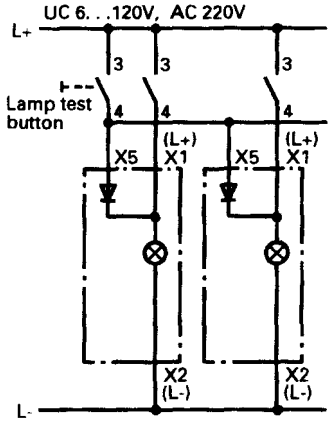
Insulation Group	VDE 0110, Group C					
Rated Operating Voltage	All contact blocks With screw terminals; AC 660V With plug-in terminals; AC 380V					
Continuous Current, Rated Operational Currents Switching Capacity	AC 40 to 60 Hz			DC		
	I_e/AC-1 A	AC V	I_e/AC-11 A	U_e DC V	I_e/DC-1 A	I_e/DC-11 A
	10	–	–	24	10	10
		–	–	48	8	4
		220/230	6	110	3.5	1.2
		380/400	4	220	1	0.4
		500	2.5	–	–	–
		660	1.2	–	–	–
Mechanical Life						
Pushbutton units	10 million make-break operations					
Illuminated pushbutton units	3 million make-break operations					
Rotary and latching actuators	300 thousand make-break operations					
Contact Life	10 million make-break operations with contactor load					
Frequency of Operation	1000 make-break operations per hour					
Ambient Temperature Range	-25 to +60°C -25 to +40°C (housing fitted with indicator lights or illuminated pushbutton units with incandescent lamps)					
Conductor Sizes	(2) #14–12 AWG (2) 1 to 2.5 mm², 1 × 4 mm²					
Mounting Position	any					
Lampholder	Clip-on for illuminated pushbutton units or indicator lights for BA 9s lamps					
Incandescent Lamp	6, 12, 24, 42, and 60V; 2 W 120V; 2.5 W For operating voltages between 220 and 240V, use a resistor type unit					
Neon Lamp	AC 110V					
LED	6V AC/24V AC/DC					
Grounding	Safety requirements are met automatically when the actuators and lens assemblies are mounted on metal front plates. When mounted in insulated housings, the "protective insulation" safety requirement is met.					

Master Lamp Test Push To Test and Wiring Applications Using Dual Input Modules



Dual Input Lampholder w/Load Across Lamp

For 220V AC applications use **3SB1400-2M** Lampholder for 130V, 2.5 W incandescent bulb.
For 6 to 120V DC applications, use **3SB1400-2P** Lampholder for 6 to 120V, 2.5 W incandescent bulb or 24V LED bulb.



Dual Input Lampholder w/o Load Across Lamp

For AC or DC applications, use **3SB1400-2Q** Lampholder.
Note: When used with AC bulbs, illuminate at half intensity.
Do not use with load across the lamp.
Do not use with voltage reducer (resistor or capacitor) and transformer type.

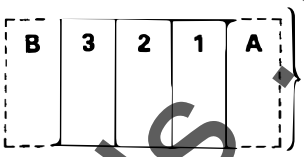
Two Position Selector Switch Contact Block Selection

Switch Position (Front of Switch)		Circuit	Block Position ①②
↖	↗		
O	X	1 NO	Any Position
X	O	1 NC	Any Position
O X	X O	1 NO/1 NC④	Any Position
O O	X X	2 NO④	Any Position
X X	O O	2 NC④	Any Position

Three Position Selector Switch Contact Block Selection

Switch Position (Front of Switch)			Circuit	Block Position ①③
↖	↑	↗		
X	O	O	1 NO	1, A or 2A
X	O	X	1 NO	2
O	O	X	1 NO	3, B or 2B
O	X	X	1 NC	1, A or 2A
O	X	O	1 NC	2
X	X	O	1 NC	3, B or 2B
X O	O X	O X	1 NO/1 NC④	1, A or 2A
X O	O X	X O	1 NO/1 NC④	2
O X	O X	X O	1 NO/1 NC④	3, B or 2B
X X	O O	O O	2 NO④	1, A, or 2A
X X	O O	X X	2 NO④	2
O O	O O	X X	2 NO④	3, B or 2B
O O	X X	X X	2 NC④	1, A or 2A
O O	X X	O O	2 NC④	2
X X	X X	O O	2 NC④	3, B or 2B

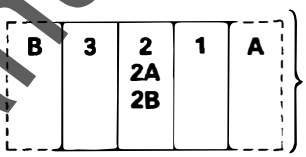
Rear View of Switch



3 or 5 Block Holder

X - Contact Closed
O - Contact Open

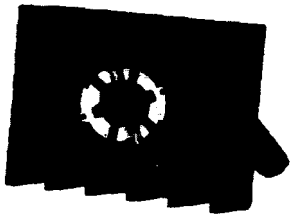
Rear View of Switch



3 or 5 Block Holder

X - Contact Closed
O - Contact Open

2 - Both Plugs Inserted



Picture denotes Position 2, both plugs inserted. Position 2A leaves left plug inserted. Position 2B leaves right plug inserted.

①Positions 2, 2A and 2B cannot be used on illuminated selector switches. Position is occupied by full voltage or resistor lamp modules.

②Illuminated transformer type 2 position selector switches have only one block position (1 or 3) available for contact block mounting.

③Illuminated transformer type 3 position selector switches have only three block positions available for contact block mounting when deep transformer is used.

④Two element contact block.