



Introducing ALCOSWITCH Blue Series Pushbutton

The new ALCOSWITCH Blue Series pushbutton is based on an innovative snap-action mechanism that produces an extremely fast switching moment. This high level of dynamics not only reduces arcing and bounce but it also results in a high number of duty cycles. The new series comprises versions with SPDT and DPDT configurations and can be ordered with push on / push off or momentary function. The actuator cap of the push-button switch is available in many colors and sizes.

KEY FEATURES

- Miniaturized snap acting pushbutton
- Contacts with silver inlay (high power) or gold inlay (low current, SPDT)
- SPDT and DPDT
- 50,000 cycles for gold plating
- 25,000 cycles for silver plating
- Tactile and audible feedback
- Wire lug or PC board terminals
- Contact rating up to:
1.5A @ 250VAC (EMEA)
3A @ 125VAC (North America)
- Hardware included
- Boot Seals available
- Multiple actuator buttons available in both color and size

APPLICATIONS

The new switch is well suited for designs requiring human interface via pushbutton style switches including:

- Industrial equipment
- Medical equipment
- Instrumentation
- Communication equipment
- Control equipment

STANDARDS

- RoHS Directive 2002/95/E compliant

SAMPLES NOW AVAILABLE

OPERATING EFFICIENCY

This miniature pushbutton is easily integrated into compact control/front panels. Despite its small case dimensions, the actuator gives a clear reliable feedback that confirms proper operation. At 265°C the solder heat resistance of the ALCOSWITCH Blue Series pushbuttons is high enough for efficient, RoHS compliant wave soldering technology.

TYPICAL PERFORMANCE CHARACTERISTICS

• Number of poles:	1 to 2
• Contact Timing:	Break-before-make
• Switch Functions:	ON-ON, ON-(ON)
• Contact Rating:	1.5A @ 250VAC (EMEA) 3A @ 125VAC (North America)
• Gold Contact:	60mA @ 30VDC
• Electrical life (<i>pushbutton only</i>):	Gold: 50,000 cycles Silver: 25,000 cycles
• Contact resistance:	Gold: 20mOhms max. @ 100mA, 2 - 4VDC Silver: 10mOhms max. @ 1A, 2 - 4 VDC
• Insulation resistance	1,000 MOhms min. @500VDC
• Dielectric strength	1,000V for 1 minute
• Actuator force	Single pole - 7 to 14 oz. (200 to 400 grams) Double pole - 14 to 25 oz. (400-700 grams)
• Actuator travel	Momentary .040" (1.02) Push on/push off .098" (2.49)
• Life Expectancy:	Up to 50,000 actuations

ENVIRONMENTAL SPECIFICATIONS

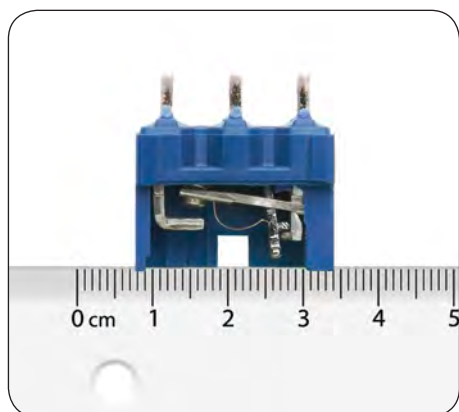
• Operating temperature:	-20°C to +80°C
• Storage temperature:	-40°C to +80°C

MATERIALS

• Contacts:	Brass with silver inlay or gold plating
• Actuator:	Brass nickel plated
• Terminals:	Brass with silver inlay or gold plated
• Terminal seal:	Epoxy
• Case:	Epoxy resin UL94V-0
• Frame:	Stainless steel

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Cross Section



SPDT PCB Gold



DPDT Wire Lug Silver

PRODUCT KEY

Typical Product Key		MPS	1	004	D	PC
Type						
MPS	Miniature pushbutton snap action					
Number of poles						
1	Single pole					
2	Double pole					
Contact rating						
004	60mA 30v DC					
03	3A 125V AC					
Function						
D	Push-on/Push-off		F	Pole momentary		
N	2 Pole Push-on/Push-off		R	2 pole momentary		
Terminals						
PC	Printed Circuit Board					
Blank	Wire lug					

PRODUCT OFFERING

ALCOSWITCH Part Number	TE Part Number	Poles	Throws	Function	Connected Terminals		Terminal	Plating/Inlay
MPS1004D	1977737-1	1	2	On/On	3-2	3-1	Wire lug	gold
MPS1004F	1977737-2	1	2	On/(On)	3-2	3-1	Wire lug	gold
MPS2004N	1977737-3	2	2	On/On	3-2, 6-5	3-1, 6-4	Wire lug	gold
MPS2004R	1977737-4	2	2	On/(On)	3-2, 6-5	3-1, 6-4	Wire lug	gold
MPS1004DPC	1977738-1	1	2	On/On	3-2	3-1	PC	gold
MPS1004FPC	1977738-2	1	2	On/(On)	3-2	3-1	PC	gold
MPS2004NPC	1977738-3	2	2	On/On	3-2, 6-5	3-1, 6-4	PC	gold
MPS2004RPC	1977738-4	2	2	On/(On)	3-2, 6-5	3-1, 6-4	PC	gold
MPS103D	1977739-1	1	2	On/On	3-2	3-1	Wire lug	silver
MPS103F	1977739-2	1	2	On/(On)	3-2	3-1	Wire lug	silver
MPS203N	1977739-3	2	2	On/On	3-2, 6-5	3-1, 6-4	Wire lug	silver
MPS203R	1977739-4	2	2	On/(On)	3-2, 6-5	3-1, 6-4	Wire lug	silver
MPS103DPC	1977740-1	1	2	On/On	3-2	3-1	PC	silver
MPS103FPC	1977740-2	1	2	On/(On)	3-2	3-1	PC	silver
MPS203NPC	1977740-3	2	2	On/On	3-2, 6-5	3-1, 6-4	PC	silver
MPS203RPC	1977740-4	2	2	On/(On)	3-2, 6-5	3-1, 6-4	PC	silver

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