

L6 Series — Miniature Switches and Pilot Devices

Key features:

- 5/8" (16mm) mounting holes
- Locking lever removable contact blocks
- Solder terminal or PCB terminal options
- Available assembled or as sub-components
- Worldwide approvals
- Incandescent or LED illumination
- Snap action contacts



UL Recognized
File No. E55996



CSA Certified
File No. LR21451

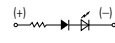
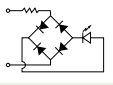
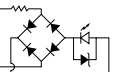


Registration No. R9551089 (E-stops)
Registration No. J9551458 (all other switches)
Registration No. R95650511 (Pilot Lights)



Contact Ratings	Conforming to Standards	EN60947-1, EN60947-5-1, VDE0660-200, UL508, CSA C22-2 NO.14																																															
	Operating Temperature	Operation: −25 to +55°C (without freezing), 45 to 85% RH Storage: -30 to +80°C (without freezing)																																															
	Vibration Resistance	5 to 55Hz, 1.0 peak-peak amplitude max																																															
	Shock Resistance	Operating limit: 100 m/sec ² (approximately 10G) Damage limit: 1000 m/sec ² (approximately 100G)																																															
	Mechanical Life	Momentary pushbuttons 2,000,000 operations minimum All others: 250,000 operations minimum																																															
	Degree of Protection	IP65 (conforming to IEC 60529)																																															
	Dielectric Strength	Switch unit: between live and ground: 2500 volt AC, 1 minute between terminals of different poles: 2500 volt AC, 1 minute between terminals of same pole: 1000 volt AC, 1 minute Illumination unit: between live part and ground: 2500 volt AC, 1 minute																																															
	Insulation Resistance	100MΩ minimum (using 500V DC megger)																																															
	Rated Insulation Voltage	250V AC/DC																																															
	Rated Thermal Current	Gold Contacts (pcb): 3A Silver Contacts (solder): 5A																																															
	Contact Resistance	50Ω maximum initial value																																															
	Rated Operating Current	<table><tr><td></td><td colspan="3">Silver Contacts (Solder Terminals)</td><td></td><td colspan="2">Gold Clad Contacts (PCB terminals)</td></tr><tr><td></td><td>30V</td><td>125V</td><td>250V</td><td></td><td>30V</td><td>125V</td></tr><tr><td>AC resistive</td><td>—</td><td>5A</td><td>2A</td><td>AC inductive</td><td>-</td><td>0.1A</td></tr><tr><td>AC inductive</td><td>—</td><td>2A</td><td>1.5A</td><td>DC resistive</td><td>0.1A</td><td>—</td></tr><tr><td>DC resistive</td><td>3A</td><td>0.4A</td><td>—</td><td></td><td></td><td></td></tr><tr><td>DC inductive</td><td>1A</td><td>0.2A</td><td>—</td><td></td><td></td><td></td></tr></table>							Silver Contacts (Solder Terminals)				Gold Clad Contacts (PCB terminals)			30V	125V	250V		30V	125V	AC resistive	—	5A	2A	AC inductive	-	0.1A	AC inductive	—	2A	1.5A	DC resistive	0.1A	—	DC resistive	3A	0.4A	—				DC inductive	1A	0.2A	—			
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Minimum Recommended Load (reference value for silver contacts)	5V AC/DC, 1mA																																																
Terminal Style	0.110" Solder Tab /PCB																																																
Contact Form	Snap Action, Double Throw																																																
Contact Material	Solder Tab: Pure Silver /PCB: Gold Plated Silver																																																
Electrical Life (at full load)	Momentary pushbuttons: 100,000 operations minimum (1800 operations / hour) All others: 100,000 operations minimum (1200 operations / hour)																																																
Lamp Ratings	Lamp Current Draw	5V DC LED: 8mA 6V AC/DC LED: 7mA 12V AC/DC LED: 8mA 24V AC/DC LED: 8mA 120V AC = 8mA																																															
	Lamp Life	Incandescent: 2000 hours./LED 50,000 hours. (on pure DC, half-life intensity)																																															

Built-in LED Lamp Ratings

Model	LFTD-5②	LFTD-1②	LFTD-2②	LFTD-H2②
Lamp Base	SX6S/8x5.4			
Rated Voltage	5V DC	12V AC/DC	24V AC/DC	120V AC
Operating Voltage	5V DC ±5%	12V AC/DC ±10%	24V AC/DC ±10%	120V AC ±5%
Current Draw	AC	9mA	9mA	8mA
	DC	8mA	8mA	—
Color Code ②	Specify a color code in place of ② in the Part No: A (amber), G (green), R (red), S (blue), W (white), Y (yellow)			
Lamp Base Color	Same as illumination color			
Voltage Marking	Stamped on the lamp base			
Life (reference value)	Approx. 50,000 hours			
Internal Circuit	A, R, W, Y	A, R, W, Y		 LED Chip  Protection Diode  Zener Diode
				
	G, S	G, S		
				

Non-Illuminated Pushbuttons (Assembled)

Non-Illuminated Pushbuttons

Style	Operation	Contact	Terminal Style	
			Solder Tab	PCB
	Momentary	SPDT	HA1B-M2C5-①	HA1B-M2C1V-①
		DPDT	HA1B-M2C6-①	HA1B-M2C2V-①
	Maintained	SPDT	HA1B-A2C5-①	HA1B-A2C1V-①
		DPDT	HA1B-A2C6-①	HA1B-A2C2V-①
	Momentary	SPDT	HA2B-M1C5-①	HA2B-M1C1V-①
		DPDT	HA2B-M1C6-①	HA2B-M1C2V-①
	Maintained	SPDT	HA2B-A1C5-①	HA2B-A1C1V-①
		DPDT	HA2B-A1C6-①	HA2B-A1C2V-①
	Momentary	SPDT	HA2B-M2C5-①	HA2B-M2C1V-①
		DPDT	HA2B-M2C6-①	HA2B-M2C2V-①
	Maintained	SPDT	HA2B-A2C5-①	HA2B-A2C1V-①
		DPDT	HA2B-A2C6-①	HA2B-A2C2V-①
	Momentary	SPDT	HA1B-M3C5-①	HA1B-M3C1V-①
		DPDT	HA1B-M3C6-①	HA1B-M3C2V-①
	Maintained	SPDT	HA1B-A3C5-①	HA1B-A3C1V-①
		DPDT	HA1B-A3C6-①	HA1B-A3C2V-①

① Button Color Codes

Color	Code	Color	Code
Black	B	Blue	S
Green	G	White	W
Red	R	Yellow	Y



- In place of ① specify Button Color Code from table.
- Illuminated (translucent) style lenses also available, specify as such: instead of LA1B-M1C5-① use LA1B-M1C5L-② in place of ② (specify Lens Color Code from next page.)
- PCB terminal models also available with silver contacts (change "1" or "2" to "5" or "6" respectively, ie LA1B-M1C1V-① becomes LA1B-M1C5V-①).