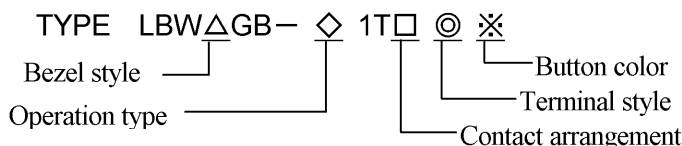


FLUSH SILHOUETTE SWITCHES

LBW SERIES PUSHBUTTONS WITH GUARD



1. Applicable standard

JIS C8201-5-1
 IEC60947-5-1
 EN60947-5-1
 UL508 (UL Recognition)
 CSA C22.2 NO.14 (CSA Approval)

2. Operating conditions

- | | |
|-------------------------|-----------------------------|
| (1) Ambient temperature | -25 to +60°C (no freezing) |
| (2) Storage temperature | -30 to +80°C (no freezing) |
| (3) Relative humidity | 45 to 85% (no condensation) |
| (4) Altitude | 2000m maximum |
| (5) Pollution degree | 3 |

3. Ratings

3.1 Gold-clad cross-bar contact

- | | |
|---|--|
| (1) Rated insulation voltage | 250V |
| (2) Rated thermal current | 3A |
| (3) Rated operating voltage and rated operating current | 30V DC · 0.1A, 125V AC · 0.1A (resistive load) |
| (4) Minimum applicable load | 5V AC/DC · 1mA (reference value) |

3.2 Silver contact

- | | |
|---|------|
| (1) Rated insulation voltage | 250V |
| (2) Rated thermal current | 5A |
| (3) Rated operating voltage and rated operating current | |

<Specifications 1>

Rated operating voltage		30V	125V	250V
Rated operating current	AC	Resistive load	—	5A
		Inductive load	—	3A
	DC	Resistive load	5A	1.1A
		Inductive load	2A	0.4A

<Specifications 2>

Rated operating voltage		30V	125V	250V
Rated operating current	AC	Resistive load	—	3A
		Inductive load	—	1.5A
	DC	Resistive load	3A	0.6A
		Inductive load	1A	0.22A

Note 1) AC inductive load : PF=0.6 to 0.7, DC inductive load : L/R=7msec maximum

Note 2) The electrical life depends on specifications. For details, see 6 on page 2.

4. Constructions

- | | |
|--------------------------|------------------------------|
| (1) Outside view | See attached sheet |
| (2) Operation type — (◇) | Momentary (M), Alternate (A) |
| (3) Degree of protection | IP65 |

(4) Button color— (※)	
(a) Button type	Black (B), Red (R), Green (G), Yellow(Y), Blue(S), White (W)
(b) Lens type	Black(LB), Red(LR),Green(LG), Yellow (LY), Amber (LA), Blue (LS), White (LW)
(5) Contact material	
(a) Gold contact	Gold-clad silver (cross-bar contact)
(b) Silver contact	Silver
(6) Contact arrangement— (□)	
(a) Gold contact	1C (1), 2C (2), 3C (3)
(b) Silver contact	1C (5), 2C (6), 3C (7)
(7) Bezel style— (Δ)	Round (6), Square (7)
(8) Button style	Flat
(9) Terminal style— (◎)	Solder/tab terminal (#110) (blank) PC board terminal (V) : Gold contact only
(10) Applicable wire	1.25mm ² maximum
(11) Panel thickness	0.5 to 3.2mm
(12) Panel cut-out	Round: $\phi 22.3^{+0.2}$ mm Square: $\square 22.5^{+0.2}$ mm
(13) Weight	Approx. 18g (LBW7GB-M1T2)
 5. Characteristics	
(1) Temperature rise	Contact : 30°Cmaximum, Terminal : 30°Cmaximum
(2) Contact resistance	50mΩ maximum (initial value)
(3) Insulation resistance	100MΩ minimum (measured with a 500V DC megger)
(4) Dielectric strength	
(a) Between live part and ground	2000V AC, 1minute
(b) Between terminals of different poles	2000V AC, 1minute
(c) Between terminals of the same poles	1000V AC, 1minute
(5) Vibration resistance	
(a) Operating extremes	Frequency 5 to 55Hz, Amplitude 0.5mm
(b) Damage limits	Frequency 5 to 55Hz, Amplitude 0.5mm
(6) Shock resistance	
(a) Operating extremes	100 m/s ²
(b) Damage limits	1000 m/s ²
(7) Mounting nut torque tightening	0.6±0.1 N·m
(8) Terminal strength	40N minimum
 6. Life	
(1) Mechanical life	
(a) Momentary	2,000,000 operations minimum
(b) Alternate	250,000 operations minimum
(2) Electrical life (rated load)	
(a) Momentary <Specifications 1>	50,000 operation minimum Switching frequency : 1,800 operations/ hour
<Specifications 2>	100,000 operation minimum Switching frequency : 1800 operations/ hour
(b) Alternate <Specifications 1>	50,000 operation minimum Switching frequency : 1200 operations/ hour
<Specifications 2>	100,000 operation minimum Switching frequency : 1800 operations/ hour