

SPECIFICATION

No. ISA2904C

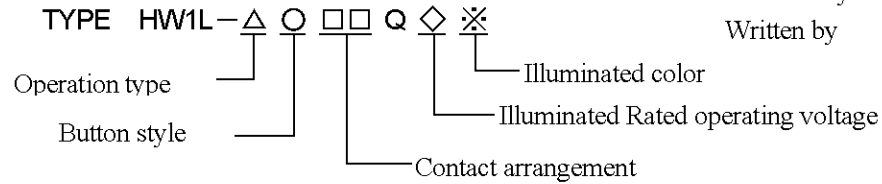
Date. February.29,2024

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φ22 SERIES PUSHBUTTON SWITCH



1. Applicable standard

JIS C 8201-5-1
 IEC60947-1, IEC60947-5-1
 EN60947-1, EN60947-5-1 (TUV Approval)
 UL508 (UL Listing)
 CSA C22.2 (CSA Certified)
 GB/T14048.5 (CCC Certified)

2. Operating conditions

- (1) Ambient temperature -25 to +50°C (no freezing)
- (2) Relative humidity 45 to 85%RH (no condensation)
- (3) Storage temperature -40 to +80°C (no freezing)

3. Ratings

- (1) Rated insulation voltage 600V
- (2) Thermal current 10A
- (3) Rated operating voltage and rated operating current

		Rated operating voltage					
		24V	48V	50V	110V	220V	440V
Rated operating current	A	Resistive load(AC-12)					
	C	Inductive load(AC-15)					
	D	Resistive load(DC-12)					
	C	Inductive load(DC-15)					

(Note)The operating current is classified according to the JIS C 8201-5-1 making and breaking current capacities.

- (4) Minimum applicable load (reference value) 3V AC/DC, 5mA
- (5) Illumination rated operating voltage — (◇) 6V AC/DC(2), 12V AC/DC(3), 24V AC/DC(4)

4. Constructions

- (1) Outside view See attached sheet
- (2) Operation type — (△) Momentary(M),Alternate(A)
- (3) Degree of protection IP65
- (4) Contact arrangement — (□□) 1a(10),1b(01),1a-1b(11),2a(20),2b(02),2a-2b(22)
- (5) Button style-(○) Round flush(1),Round extended(2),Round extended with full gourd(F2), φ29 mushroom(3), φ40 mushroom(4)
- (6) Illuminated color — (※) Red(R),Amber(A),Green(G),Blue(S),Yellow(Y),Pure white(PW)

- (7) Applicable LED lamp LSRD (See attached sheet)
 (8) Lamp base BA9S/13
 (9) Terminal style M3.5 terminal screw
 (10) Applicable wire / Recommended tightening torque

Applicable wire		Maximum number of installed	Recommended tightening torque (N·m)
Solid wire	ϕ 0.5~1.6mm (AWG14~22)	2	1.0~1.3
	ϕ 1.7~2.0mm (AWG12)	1	1.2~1.3
Strand wire	0.3~2.0mm ² (AWG14~22)	2	1.0~1.3
	2.1~3.5 mm ² (AWG12)	1	1.2~1.3

- (11) Panel thickness 0.8 to 6mm
 (12) Panel cut-out ϕ 22.3^{+0.4}mm

5. Characteristics

- (1) Contact resistance 50m Ω maximum (initial value)
 (2) Insulation resistance 100M Ω minimum (measured with a 500V DC megger)
 (3) Dielectric strength 2,500V AC, 1minute(Contact block)
 2,000V AC, 1minute(Illuminated unit)
 (4) Vibration resistance
 (a) Operating extremes Frequency 5 to 55Hz, Amplitude 0.5mm
 (b) Damage limits Frequency 30Hz, Amplitude 1.5mm
 (5) Shock resistance
 (a) Operating extremes 100 m/s²
 (b) Damage limits 1,000 m/s²

6. Life

- (1) Mechanical life (without load)
 (a) Momentary 5,000,000 operation minimum
 (Operating frequency: 1,800 operations/hour maximum)
 (b) Alternate 500,000 operation minimum
 (Operating frequency: 900 operations/hour maximum)
 (2) Electrical life (rated load)
 (a) Momentary 500,000 operation minimum
 (Operating frequency: 1,800 operations/hour maximum Duty Rate: 40%)
 (b) Alternate 500,000 operation minimum
 (Operating frequency: 900 operations/hour maximum Duty Rate: 40%)