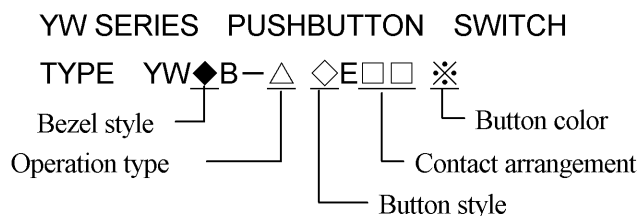




SPECIFICATION

No. ISA3541B

Date. June. -9, 2010

Approved by S.TakahashiChecked by H.OkamuraWritten by T.Matsumoto

1. Applicable standard

IEC60947-1, IEC60947-5-1
 EN60947-1, EN60947-5-1
 UL508 (UL Listing)
 CSA C22.2 No.14 (c-UL Listing)
 GB14048.5 (CCC Approval)

2. Operating conditions

- | | |
|-------------------------|--------------------------------|
| (1) Ambient temperature | -20 to +55°C (no freezing) |
| (2) Operating humidity | -45 to +80°C |
| (3) Relative humidity | 45 to 85% RH (no condensation) |
| (4) Altitude | 2,000m maximum |

3. Ratings

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

		Rated operating voltage			
		24V	120V	240V	380V
Rated operating current	A	Resistive load (AC12)			
	C	10A	10A	6A	2A
	D	Resistive load (DC12)			
	C	10A	6A	3A	1.9A
	D	8A	2.2A	1.1A	—
	C	4A	1.1A	0.55A	—

- | | |
|-----------------------------|---------------------------------|
| (4) Minimum applicable load | 3V AC/DC, 5mA (reference value) |
|-----------------------------|---------------------------------|

4. Constructions

- | | |
|-------------------------------|---|
| (1) Outside view | See attached sheet |
| (2) Operation type— (△) | Momentary(M),Alternate(A) |
| (3) Degree of protection | From front panel: IP65, Terminal:IP20 |
| (4) Bezel style— (◆) | Round(1), Round(Metal bezel)(4) |
| (5) Contact arrangement— (□□) | 1a(10),1b(01),1a-1b(11),2a(20),2b(02) |
| (6) Contact material | Silver |
| (7) Button style— (◇) | Flush(1),Extended(2),φ40mmMushroom(4) |
| (8) Button color—(※) | Black(B),Green(G),Red(R),Yellow(Y),Blue(S),White(W) |
| (9) Terminal style | M3.5 terminal screw |
| (10) Applicable wire | Maximum 2mm ² (2maximum) |
| (11) Panel thickness | 0.8 to 6mm |
| (12) Panel cut-out | φ22.3 ^{+0.4} mm |

5. Characteristics

- | | |
|---------------------------|---|
| (1) Temperature rise | Contact : 40°Cmax., Terminal : 40°Cmax. |
| (2) Contact resistance | 50mΩ maximum(initial value) |
| (3) Insulation resistance | 100MΩ minimum(measured with a 500V DC megger) |
| (4) Dielectric strength | 2,500V AC, 1minute |

(5) Vibration resistance

- (a) Operating extremes Frequency 5 to 55Hz, Amplitude 0.5mm
- (b) Damage limits Frequency 30Hz, Amplitude 1.5mm

(6) Shock resistance

- (a) Operating extremes 100 m/s²
- (b) Damage limits 1,000 m/s²

(7) Terminal strength

- (a) Tightening torque 1.8N·m
- (b) Wire tensile strength 50N

6. Life

(1) Mechanical life(without load)

- (a) Momentary operation 5,000,000 operation minimum
- (b) Alternate operation 250,000 operation minimum

(2) Electrical life (rated load)

- (a) Momentary operation 100,000 operation minimum
Operating frequency: 1,800 operations/hour maximum
Duty Rate: 40%
- (b) Alternate operation 100,000 operation minimum
Operating frequency: 900 operations/hour maximum
Duty Rate: 40%