1. Applicable standard

- JIS C 8201-5-1
- IEC60947-5-1, EN60947-5-1 (TUV Approval)
- IEC60947-5-5, EN60947-5-5 (TUV Approval)
- UL508 (UL Recognition)
- CSA C22.2 No.14 (c-UL Recognition)
- UL508 (UL Listing)
- CSA C22.2 No.14 (c-UL Listing)
- UL991
- NFPA79
- GB/T14048.5 (CCC Certified)

2. Operating conditions

- (1) Ambient temperature: -25 to +60°C (no freezing)
- (2) Relative humidity: 45 to 85% (no condensation)
- (3) Storage temperature: -45 to +80°C (no freezing)
- (4) Pollution degree: 3

3. Contact ratings

- (1) Rated insulation voltage: 250V (Screw terminal type), 300V (Solder terminal type, PC board terminal type)
- (2) Thermal current: 5A
- (3) Rated operating voltage and rated operating current

<table>
<thead>
<tr>
<th>Rated operating voltage (Ue)</th>
<th>30V</th>
<th>125V</th>
<th>250V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main contact (NC contact)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Resistive load (AC12)</td>
<td>-</td>
<td>5A(1)</td>
<td>3A</td>
</tr>
<tr>
<td>C Inductive load (AC15)</td>
<td>-</td>
<td>3A(2)</td>
<td>1.5A</td>
</tr>
<tr>
<td>D Resistive load (DC12)</td>
<td>2A</td>
<td>0.4A</td>
<td>0.2A</td>
</tr>
<tr>
<td>C Inductive load (DC13)</td>
<td>1A</td>
<td>0.22A</td>
<td>0.1A</td>
</tr>
<tr>
<td>Monitor contact (NO contact)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Resistive load (AC12)</td>
<td>-</td>
<td>1.2A</td>
<td>0.6A</td>
</tr>
<tr>
<td>C Inductive load (AC14)</td>
<td>-</td>
<td>0.6A</td>
<td>0.3A</td>
</tr>
<tr>
<td>D Resistive load (DC12)</td>
<td>2A</td>
<td>0.4A</td>
<td>0.2A</td>
</tr>
<tr>
<td>C Inductive load (DC13)</td>
<td>1A</td>
<td>0.22A</td>
<td>0.1A</td>
</tr>
</tbody>
</table>

Note) The operating current is classified according to the JIS C 8201-5-1-1999 making and breaking current capacities

Note 1) Solder terminal/PC board terminal type : 3A
Note 2) Solder terminal/PC board terminal type : 1.5A

(4) Minimum applicable load (reference value) 5V AC/DC, 1mA

4. Constructions

- (1) Outside view
- (2) Latching: Push lock (Safety-lock mechanism)
- (3) Resetting: Pull reset or Turn reset. It is possible either way

IDEC CORPORATION
(4) Degree of protection
   IP65/IP67 (IEC60529)
   Terminal Protection: IP20 (Screw terminal, when using XW9Z-VL2MF)
   1NC(01), 2NC(02), 3NC(03), 4NC(04)
   1NO-1NC(11), 1NO-2NC(12), 1NO-3NC(13), 2NO-2NC(22)
   (PC board terminal type is no 2NO-2NC)

(5) Contact arrangement — (□□■)
   (□: monitor contact ■: main contact)

(6) Button style
   Mushroom (φ 40 button)

(7) Button color — (□□□)
   Red(R), Bright red(RH)

(8) Terminal style — (△)
   Solder terminal (blank), PC board terminal (V)
   M3 screw terminal/IP20 type (MF),
   M3 screw terminal/with terminal cover type (M)

(9) Applicable wire
   (a) Solder terminal
   0.75 to 1.25mm² maximum (AWG 18 to 16 maximum)
   (b) Solder terminal/PC board terminal
   1.25mm² maximum (AWG 16 maximum)

(10) Panel thickness
   0.8 to 6mm

(11) Panel cut-out
   φ 22.3 +0.3 mm

(12) Mounting nut torque tightening
   2.0 N·m

5. Characteristics
(1) Contact resistance
   50mΩ maximum (initial value)
(2) Operation force
   Push lock: 32N
   Pull reset: 21N
   Turn reset: 0.27N·m
(3) Minimum force required for direct opening action
   80N
(4) Minimum operator stroke required for direct opening action
   4.0mm
(5) Maximum operator stroke
   4.5mm
(6) Insulation resistance
   100MΩ minimum (measured with a 500V DC megger)
(7) Impulse withstand voltage
   2.5kV
(8) Over voltage category
   Ⅱ

(9) Vibration resistance
   (a) Operating extremes
   Frequency 10 to 500Hz, Amplitude 0.35mm Acceleration 50m/s²
   (b) Damage limits
   Frequency 10 to 500Hz, Amplitude 0.35mm Acceleration 50m/s²
(10) Shock resistance
   (a) Operating extremes
   150 m/s²
   (b) Damage limits
   1000 m/s²
(11) Short-circuit protective device
   10A, 250V fuse
   (Operating class aM according to IEC 60269-1 and IEC 60269-2)
(12) Conditional short-circuit current
   1000A
(13) Solder heat resistance
   310 to 350°C, 3 seconds maximum
(14) Weight
   Approx. 72g

6. Life
(1) Mechanical life (without load)
   250000 operation minimum
   (Operating frequency: 900 operations/hour maximum)
(2) Electrical life (rated load)
   (a) Rated load
   100000 operation minimum
   (Operating frequency: 900 operations/hour maximum)
   (b) When the load is 24V·100mA AC/DC
   250000 operation minimum
   (Operating frequency: 900 operations/hour maximum)