

ø22 XW Series Emergency Stop Switches

ø22 mm, 4-contact Emergency Stop Switch. Compact size—only 37.1 mm deep behind the panel (screw terminal style 48.7 mm with terminal cover). Reliable “Safe break action.”

- The depth behind the panel is only 37.1 mm for 1 to 4 contacts (screw terminal style 48.7 mm with terminal cover).
- The same depth behind the panel for illuminated and non-illuminated switches.
- IDEC's original “Safe break action” ensures that the contacts open when the contact block is detached from the operator.
- 1 to 4NC main contacts and 1 or 2NO monitor contact
- Push-to-lock, Pull or Turn-to-reset operator
- Direct opening action mechanism (IEC60947-5-5, 5.2, IEC60947-5-1, Annex K)
- Safety lock mechanism (IEC60947-5-5, 6.2)
- Degree of protection IP65, IP67 (IEC60529)
- Durable, gold plated silver contacts.
- Screw terminal style is finger-safe (IP20).
- Two operator sizes: ø40 and ø60 mm
- Dark red (Munsell 5R4/12) or bright red (Munsell 7.5R4.5/14) colors are available for the non-illuminated operator.
- Push-ON illumination available (operator size: ø60)
- Connector style available to reduce wiring time and wiring mistakes.



Standards and Specifications

Contact Ratings

(NC main contacts/NO monitor contact)

Rated Insulation Voltage (Ui)		Screw Terminal		250V			
		Solder Terminal		300V			
Rated Thermal Current (Ith)		PC Board Terminal		125V			
		Connector		5A (connector style: 2.5A)			
Rated Operating Voltage (Ue)		30V		125V		250V (Note 3)	
Rated Operating Current	Main Contacts	AC 50/60 Hz	Resistive Load (AC-12)	–	5A (Note 1)	3A	
			Inductive Load (AC-15)	–	3A (Note 2)	1.5A	
	DC	Resistive Load (DC-12)	2A	0.4A	0.2A		
		Inductive Load (DC-13)	1A	0.22A	0.1A		
Monitor Contacts	AC 50/60 Hz	Resistive Load (AC-12)	–	1.2A	0.6A		
		Inductive Load (AC-14)	–	0.6A	0.3A		
	DC	Resistive Load (DC-12)	2A	0.4A	0.2A		
		Inductive Load (DC-13)	1A	0.22A	0.1A		
Contact Material		Gold plated silver					

- Minimum applicable load: 5V AC/DC, 1 mA (reference value) (Operating area depends on the operating conditions and load types.)
- The rated operating currents are measured at resistive/inductive load types specified in JIS C8201-5-1.

Note 1: Solder terminal/PC board terminal: 3A, Connector: 2.5A

Note 2: Solder terminal/PC board terminal: 1.5A

Note 3: Except for connector style.

Illumination Ratings

Rated Voltage	Operating Voltage	Rated Current
24V AC/DC	24V AC/DC ±10%	15 mA

Note: An LED lamp is built into the contact block and cannot be replaced.

Specifications

Applicable Standards	IEC60947-5-1, EN60947-5-1, IEC60947-5-5 (Note), EN60947-5-5, JIS C8201-5-1, UL508, UL991, NFPA79, CSA C22.2 No. 14, GB14048.5	
Operating Temperature	Non-illuminated: –25 to +60°C (no freezing) LED illuminated: –25 to +55°C (no freezing)	
Storage Temperature	–45 to +80°C	
Operating Humidity	45 to 85% RH (no condensation)	
Operating Force	Push to lock: 32N Pull to reset: 21N Turn to reset: 0.27 N·m	
Minimum Force Required for Direct Opening Action	80N	
Minimum Operator Stroke Required for Direct Opening Action	4.0 mm	
Maximum Operator Stroke	4.5 mm	
Contact Resistance	50 mΩ maximum (initial value) Connector style: 30 mΩ (Note)	
Insulation Resistance	100 MΩ minimum (500V DC megger)	
Overvoltage Category	II	
Impulse Withstand Voltage	2.5 kV	
Pollution Degree	3 (connector style: 2)	
Operation Frequency	900 operations/hour	
Shock Resistance	Operating extremes: 150 m/s ² Damage limits: 1000 m/s ²	
Vibration Resistance	Operating extremes: 10 to 500 Hz, amplitude 0.35 mm, acceleration 50 m/s ² Damage limits: 10 to 500 Hz, amplitude 0.35 mm, acceleration 50 m/s ²	
Mechanical Life	250,000 operations minimum	
Electrical Life	100,000 operations minimum 250,000 operations minimum (24V AC/DC, 100 mA)	
Degree of Protection	Panel front: IP65, IP67 (IEC 60529) Terminal Protection: IP20 (screw terminal, when using XW9Z-VL2MF)	
Short-circuit Protection	250V/10A fuse (Type aM, IEC60269-1/IEC60269-2)	
Conditional Short-circuit Current	1000A	
Terminal Style	Solder terminal, PC board terminal, M3 screw terminal, Connector	
Recommended Tightening Torque for Locking Ring	2.0 N·m	
Connectable Wire	Screw terminal: 0.75 to 1.25 mm ² (AWG18 to 16) Solder terminal / PC board terminal: 1.25 mm ² maximum (AWG16 maximum) Connector style: 0.3 to 0.85 mm ² (AWG22 to 18)	
Soldering Conditions	310 to 350°C, 3 seconds maximum	
Recommended Tightening Torque for Terminal Screw	0.6 to 1.0 N·m	
Weight	ø40 mm: 72g ø60 mm: 81g	

Note: When connecting the applicable connector to a 1m wire of 0.3 mm² (AWG22).

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