Dverview

XW Series E-Stops

HE2B Redundant (Double) Basic Enabling Switch

Key features:

- 3-position functionality (OFF ON –OFF) as required for manual robotic control
- Ideally suited for use as enabling (aka "deadman") switch on teach pendants
- · Provides a high level of safety based on human behavioral studies that determine personnel may squeeze OR let go when presented with a panic situation
- Snap acting contacts from $Off \rightarrow On (1 \rightarrow 2)$
- Positive action contacts from $On \rightarrow Off (2 \rightarrow 3)$ ensure no contact welding (per EN60947-5-1 / IEC60947-5-1)
- Contacts will not re-close when released from $Off \rightarrow On (3 \rightarrow 1)$ (per IEC60204-1; 9.2.5.8)
- · Multiple contacts for enhanced reliability
- · Monitoring contacts in addition to main load contacts
- Available with or without rubber cover (cover provides IP65 watertight seal)

Color

Yellow

Black

Gray



Part Numbers









vitches									
Interlock Switches	Part Numbers				Number of Contacts		Part Number		
nterl	Style			3 Position Switch	Push Monitor Switch	Return Monitor Switch	Part Number		
_		Without Rubber Cover		2	0	0	HE2B-M200		
				2	1	1	HE2B-M211		
				2	2	2	HE2B-M222		
hes		With Rubber Cover	Yellow	2	0	0	HE2B-M200PY		
witc				2	1	1	HE2B-M211PY		
ng S				2	2	2	HE2B-M222PY		
Enabling Switches	C C C C C C C C C C C C C C C C C C C		Black	2	0	0	HE2B-M200PB		
ц				2	1	1	HE2B-M211PB		
				2	2	2	HE2B-M222PB		
			Gray	2	0	0	HE2B-M200PN1		
lays				2	1	1	HE2B-M211PN1		
ol Relays				2	2	2	HE2B-M222PN1		

Part Number

HE9Z-D2Y

HE9Z-D2B

HE9Z-D2N1

Accessories

Replacement Rubber Cover

Apperance



Material

Silicon Rubber

NBR/PVC Polyblend

Specifications

Application Standards ISO 12100-1, -2, EN 12100-1, 2 / EN 292, IEC 60204-1 / EN 60204-1 ISO 11161 / prEM 11161, ISO 10218 / EN 775, ANSI / RIA R15.06, ANSI B11.19 Operating Terrrerature -25 to +60°C (no freezing) Operating Humidity 45 to 85% RH (no condensation) Storage Terrrerature -40 to +80°C (no freezing) Pollution Degree 2 (inside of panel/contact side) Contact Resistance 50mΩ maximum Between live and dead metal parts: 100MΩ maximum Insulation Resistance 25kV Operating Freuency 1200 operations/hour Mechanical Life 000 operations/hour Position 1-92: 1.000,000 operations minimum Pos	Conforming t	o Standards	UL508 (UL recognized), CSA C22.2, No. 14 (c-UL recognized), IEC/EN 60947-5-1, IEC/EN 60947-5-8 (TÜV approval)			
Operating Humidity 45 to 85% RH (no condensation) Storage Temperature -40 to +80°C (no freezing) Pollution Degree 2 (inside of panel/contact side) 3 (outside of panel/contact side) 3 (outside of panel/contact side) Contact Resistance 50mΩ maximum Insulation Resistance Between live and dead metal parts: 100MΩ maximum Impulse Withstand Voltage 2.5kV Operating Frequency 1200 operations/hour Mechanical Life Position 1-32: 1.000,000 operations minimum Position 1-32: 3.000,000 operations minimum Position 1-32: 3.000,000 operations minimum Position 1-32: 3.000,000 operations minimum Position 1-32: 1.000,000 operations minimum Rechanical Life 100,000 (at full rated load) Shock Operating Extremes 150m/s² (15 G) Damage Limits 100m/s² (100 G) Operating Extremes 5 to 55Hz, amplitude 1.5mm minimum Resistance Damage Limits 16.7Hz, amplitude 1.5mm minimum Recommended Wire Size 0.5mm² maximum / 1 line (20AWG) 3 Solder Heat Resistance 310 ~ 350°C / 3 seconds maximum 1 Terminal Pulling Strength 20N minimum 0 Re	Application S	tandards				
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Circuit Opening Force60N minimum (button return monitor & button push monitor)Actuating Force (Operating)500N minimum	Conditional Short-Circuit Current		50A (250V)			
Actuating Force (Operating) 500N minimum	Recommended Short Circuit Protection		250V/10A fast blow fuse (IEC 60127-1)			
······································	Circuit Opening Force		60N minimum (button return monitor & button push monitor)			
Weight Approx. 26g (without cover), 30g (with cover)	Actuating Force (Operating)		500N minimum			
	Weight		Approx. 26g (without cover), 30g (with cover)			

Contact Ratings

Rated Insulation Voltage (Ui)						250V		
Thermal Current (Ith)						3A		
Rated Operating Voltage (Ue)						125V	250V	
	3 Position Switch		AC	Resistive Load (AC-12	2) –	1A	0.5A	
		osition	AU	Inductive Load (AC-15	5) —	0.7A	0.5A	
		DC	Resistive Load (DC-12	2) 1A	0.2A	-		
Rated Operating			Inductive Load (DC-13	3) 0.7A	0.1A	-		
Current (le)		AC	Resistive Load (AC-12	2) —	2.5A	1.5A		
	Push/return Monitor Switch (NC Contacts)		Inductive Load (AC-15	5) —	1.5A	0.75A		
			DC	Resistive Load (DC-12	2) 2.5A	1.1A	0.55A	
			DC	Inductive Load (DC-13	3) 2.3A	0.55A	0.27A	
	3 Position Switch			2 co	2 contacts (DPDT)			
Contact Configuration		Return Monitor Switch			0 ~ 2	0 ~ 2 contacts (NC)		
		Push Monitor Switch			0 ~ 2	0 ~ 2 contacts (NC)		

Minimum applicable load (reference) = AC/DC3V \bullet 5mA (for reference only)

Overview

AS-Interface Safety at Work

Overview

XW Series E-Stops





Using rubber boot will change the operating force depending on the operating temperature.

Dimensions (mm) Without Rubber Cover



With Rubber Cover

6



Mounting Hole Layout



396

Light Curtains



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