



HW: The Best Engineered Switch in the World

Key features include:

- Locking lever removable contact blocks
- Finger-safe IP20 contacts as standard, other terminal styles available
- Tamperproof construction
- All E-stops meet EN418 and are compliant with SEMI S2 standards
- Worldwide approvals
- Easy to assemble
- Available assembled or as sub-components
- Choice of black plastic or metallic front bezels
- Incandescent or LED illumination
- Transformer or full voltage
- Slow make double break self cleaning contacts

IDEC's HW switches are "The best engineered switch in the world" for a reason. Carrying the CE mark, UL, CSA, and TUV approvals, these switches are designed for use in almost any part of the world.

Complete with finger-safe contact blocks offering IP20 protection, these 7/8" (22mm) switches include illuminated and non-illuminated pushbuttons, pilot lights, selector switches, and emergency stop switches.

All switches also incorporate mechanically keyed safety locking levers, ensuring correct installation and maintaining safety in high-vibration applications.

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
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[Http://www.100y.com.tw](http://www.100y.com.tw)



File No. E68961



File No. LR92374



Registration No. R9551089 (E-stops)
 Registration No. J9551458 (all other switches)
 Registration No. J9650511 (Pilot Lights)

Conforming to Standards	EN60947-1, EN60947-5-1, VDE0660-200, UL508, CSA C22-2 No.14							
Approvals	<div>   </div> <div> File No. E68961 File No. LR92374 </div> <div>   </div> <div> TÜV Rheinland Registration No. R9551089 (E-stops) Registration No. J9551458 (all other switches) Registration No. J9650511 (Pilot Lights) </div> <div> CSA: pushbuttons and selector switches: A600 pilot lights and illuminated pushbuttons, direct supply pilot lights and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V) UL: pushbuttons and selector switches: A600 pilot lights and illuminated pushbuttons, direct supply pilot lights and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V) TUV: pushbuttons and selector switches: A600=P600 (NO, NC)/Q600 (NO-EM, NC-LB) pilot lights and illuminated pushbuttons, direct supply pilot lights and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V) </div>							
Operating Temperature	Operation: -25 to +50°C (without freezing) Storage: -40 to +70°C (without freezing)							
Vibration Resistance	10 to 55Hz, 98m/sec ² (10G) conforming to IEC6068-2-6							
Shock Resistance	980m/sec ² (100G) conforming to IEC6068-2-7							
Electric Shock Protection	Class 0 conforming to IEC60536							
Degree of Protection (conforming to IEC60529) (conforming to NEMA ICS6-110)	IP65 (from front of the panel) IP20 (Type HW-F contact block) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)							
Mechanical Life	Momentary pushbuttons: 5,000,000 (900 operations per hour) All other switches: 500,000							
Pollution Degree (conforming to IEC60947-1)	3 for switches not using a transformer 2 for switches using a transformer							
Rated Operational Characteristics	AC-15: A600 or Ue = 250V, Ie = 3A (NO, NC, NO-EM, NC-LB) DC-13: P600 or Ue = 125V, Ie = 1.1A (NO, NC) DC-13: Q600 or Ue = 125V, Ie = 0.9A (NO-EM, NC-LB)							
Rated Insulation Voltage	600V							
Rated Switching Over-Voltage	Less than 4kV, conforming to IEC60947-1							
Rated Impulse Withstanding Voltage	4kV for contact circuit 2.5kV for lamp circuit							
Rated Thermal Current	10 Amp							
Minimum Switching Capacity	5 mA at 3V AC/DC							
Contact Operation	Slow break NC or NO, self-cleaning							
Positive Action Operation (Emergency Stops with NC contacts)	5.5mm to 10mm travel to latch 45N minimum force to latch 10mm maximum travel 1,800 operations per hour maximum for a Pushlock Turn Reset 900 operations per hour maximum for a Push-Pull							
Operating Force	Flush and extended pushbuttons—with 1NO or 1NC contact: 6.2±2N (momentary), 7.0±2N (main- tained) Additional contacts—1NO or 1NC: +3.2N (momentary), +3.3N (maintained)							
Terminal Referencing	Conforming to CENELEC EN50005							
Recommended Terminal Torque	0.8 N m (7.1 in lb.)							
External Short-Circuit Protection	10A 250V fuse conforming to IEC60269-1							
Applicable Wire Size	Minimum 1 x 22 AWG, max. 2 x 14 AWG or 1 x 12 AWG							
Contact Resistance	Initial contact resistance of 50mΩ or less							
Contact Gap	4mm (NO and NC) 2mm (NO-EM and NC-LB)							
Horsepower Rating	Reference Value: 1/4 HP @ 120V (1ø non-reversing), 1HP @ 240V (3ø non-reversing)							
Electrical Reliability	MTBF < 1 fault for 10 million operation cycles (3V DC, 5mA)							
Lamp Ratings	Incandescent: 1 W LEDs: 6V/17mA max, 12V & 24V/11mA max, 120 & 240V/10mA max							
Maximum Inrush Current	40 A (40 ms)							
Contact Material	Silver (gold plated contacts available - contact IDEC)							
	Break Values							
	AC		DC		AC		DC	
	Inductive	Resistive	Inductive	Resistive	Inductive	Resistive	Inductive	Resistive
Rated Operating Current	24V: 10A 120V: 5A 240V: 3A 480V: 1A	24V: 10A 120V: 10A 240V: 6A 480V: 2A	24V: 5A 48V: 2A 110V: 1.1A 220V: 0.6A	24V: 10A 48V: 5A 110V: 2.2A 220V: 1.1A	120V: 60A 240V: 30A 480V: 15A 600V: 12 A	120V: 100A 240V: 60A 480V: 20A	120V: 11A 240V: 6A 12V: 40A 24V: 40A	120V: 20A 240V: 11A 480V: 4A 12V: 40A 24V: 40A

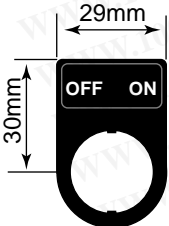
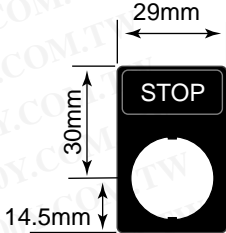
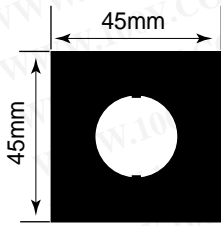
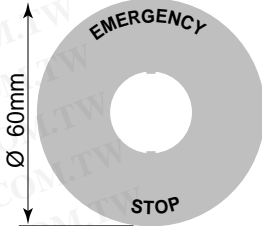
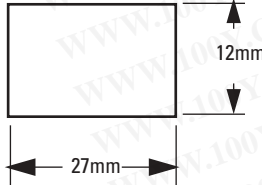


1. For dimensions, see page A-116.
2. For life expectancy derating curves, see page A-120.

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Nameplates — HW Series

Part Numbers: Nameplates

	HWAM—Black Plastic	HWAQ—Black Plastic	HWAS—Black Plastic	HWAV—Yellow Plastic
				
	Part Number	Part Number	Part Number	Part Number
Nameplate (blank engraving plate included)	HWAM-OB	HWAQ-OB	HWAS-OB	HWAV-OY
Nameplate (engraved)	HWAM-①	HWAQ-①	HWAS-①	HWAV-27* HWAV-527†
Additional Insert (blank)	HWNP-O	HWNP-O	HWNP Dimensions 	
Additional Insert (engraved)	HWNP-①	HWNP-①		



1. In place of ①, insert either the standard legend code from table below or custom engraving delimited by “ ”.
2. Standard engravings are available at no charge.
3. * HWAV-27 comes engraved “Emergency Stop” as shown in drawing.
4. † HWAV-527 for 80mm diameter jumbo mushroom comes engraved “Emergency Stop” as shown in drawing.

Standard Legend Codes

Pushbuttons				Pushbuttons/Selector Switches				Selector Switches	
Legend	Code	Legend	Code	Legend	Code	Legend	Code	Legend	Code
AUTO	101	OPEN	116	AUTO-MAN	201			AUTO-MAN-OFF	301
CLOSE	102	OUT	117	CLOSE-OPEN	202			AUTO-OFF-MAN	302
DOWN	103	RAISE	118	DOWN-UP	203			CLOSE-OFF-OPEN	303
EMERG.STOP	104	RESET	119	FAST-SLOW	204	REV-FOR	216	DOWN-OFF-SLOW	304
FAST	105	REVERSE	120	FOR-REV	205	RUN-JOG	217	FAST-OFF-SLOW	305
FORWARD	106	RUN	121	HAND-AUTO	206	RUN-SAFE	218	FOR-OFF-REV	306
HAND	107	SLOW	122	HIGH-LOW	207	SAFE-RUN	219	LEFT-OFF-RIGHT	307
HIGH	108	STOP	123	JOG-RUN	208	SLOW-FAST	220	LOWER-OFF-RAISE	308
IN	109	TEST	124	LEFT-RIGHT	209	START-STOP	221	OFF-MAN-AUTO	309
INCH	110	UP	125	LOWER-RAISE	210	STOP-START	222	OFF-SLOW-FAST	310
JOG	111	EMO	126	MAN-AUTO	211	UP-DOWN	223	OFF-1-2	311
LOW	112		127	OFF-ON	212	OI (Int'l OFF ON)	250	OPEN-OFF-CLOSE	312
LOWER	113		150	ON-OFF	213			SLOW-OFF-FAST	313
OFF	114		151	OPEN-CLOSE	214			SUMMER-OFF-WINTER	314
ON	115		152	RAISE-LOWER	215			UP-OFF-DOWN	315
								1-OFF-2	316
								HAND-OFF-AUTO	317



1. To order engraved nameplates, add legend code to nameplate part number.
2. Character height based on the number of characters and size of nameplate. Standard character size is 3/16".
3. Nameplates with standard legends are the same list price as blank nameplates.
4. Nameplates have built-in anti-rotation feature for use with notched panel cut-outs. Additional anti-rotation ring (HW9Z-RL) is not necessary.

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