# **HW Series – 22mm IEC Style Global Pushbuttons**

#### **Key features:**

- 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
- Choice of black plastic or metallic front bezels
- Incandescent or LED illumination
- Transformer or full voltage
- Slow make double break self cleaning contacts



#### HW: The Best Engineered Switch in the World

IDEC's HW switches are "The best engineered switch in the world" for a reason. Carrying the CE mark, UL, CSA, CCC (Chinese), 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.







Registration No. R9551089 (E-stops) Registration No. R50054316 (Dual Pushbuttons) Registration No. J9650511 (Pilot Lights) Registration No. J9551458 (all other switches)





# **Specifications**

	opositionio .					
	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)				
	Maximum Inrush Current	40 A (40 ms)				
	Rated Insulation Voltage	600V				
ical	Rated Switching Over-Voltage	Less than 4kV, conforming to IEC60947-1				
Electrical	Rated Impulse Withstanding Voltage	4kV for contact circuit, 2.5kV for lamp circuit				
ш	Rated Thermal Current	10 Amp				
	Minimum Switching Capacity	5 mA at 3V AC/DC				
	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				

Contact Operation   Slow break NC or NO, self-cleaning											
Tomm maximum frow   1,000 percentage per hour maximum for a Pushlock Turn Reset   1,000 percentage per hour maximum for a Pushlock Turn Reset   1,000 percentage per hour maximum for a Pushlock Turn Reset   1,000 percentage per hour maximum for a Pushlock Turn Reset   1,000 percentage per hour maximum for a Pushlock Turn Reset   1,000 percentage per hour maximum for a Pushlock Turn Reset   1,000 percentage per hour maximum for a Pushlock Turn Reset   1,000 percentage per hour per percentage   1,000					Slow break NC or NO, sel	f-cleaning					
Additional contacts—INtO or INC: +3.2N (momentary), + 3.3N (maintained)				ntacts)	10mm maximum travel, 1,800 operations per hour maximum for a Pushlock Turn Reset						
Applicable Wire Size  Minimum 1 x 22 AWG, max 2 x 14 AWG or 1 x 12 AWG  Contact Resistance  Initial contact resistance of 50m0 or less  Amm (N0 and NC), 2mm (N0-EM and NC-LB)  Horsepower Reting  Contact Material  Operating Temperature  Operation—25 to -50°C (without freezing), 1HP @ 240V (3e non-reversing)  Vibration Resistance  Shock Resistance  Mechanical Life  Conforming to Standards  Approvals  File No. 542214  Conforming to Standards  Approvals  File No. 542214  Operation—25 to -50°C (without freezing)  Operation—25 to -50°C (without freezing)  Vibration Resistance  980m/sec² (1000) conforming to IEC6068-2-7  Momentary pushbuttons: 5,000,000 (900 operations per hour), All other switches: 500,000  Conforming to Standards  Approvals  Operation—15 to -6000 (900 operations per hour), All other switches: 500,000  Conforming to Standards  Approvals  Operation—15 to -6000 (900 operations per hour), All other switches: 500,000  Conforming to Standards  Approvals  Operation—15 to -6000 (900 operations per hour), All other switches: 500,000  Conforming to Standards  Approvals  Operation—15 to -6000 (900 operations per hour), All other switches: 500,000  Conforming to Standards  Approvals  Operational National Humaniated pushbuttons and selector switches: ABOD  pilot lights and Illuminated pushbuttons, direct supply pilot lights and illuminated pushbuttons with integer transformer (1001110, 115, 120, 2002202, 230, 240, 380, 400/440, 480V)  TUV: pushbuttons and selector switches: ABOD—PBOU (NO, No, No, No, No, No, No, No, No, No, No		Operating Ford	се								
Horsepower Rating		Recommended Terminal Torque		0.8 N m (7.1 in lb.)							
Horsepower Rating	ical	Applicable Wire Size		Minimum 1 x 22 AWG, ma	ax. 2 x 14 AW	G or 1 x 12 AV	VG				
Horsepower Rating	har	Contact Resistance		Initial contact resistance	of $50$ m $\Omega$ or les	SS					
Contact Material Operating Temperature Operating Temperature Operating Temperature Operating Temperature Vibration Resistance Shock Resistance Shock Resistance Operating to Standards Operating Temperature Operating to Standards  Approvals  Conforming to Standards  Conforming to	Me	Contact Gap			4mm (NO and NC), 2mm (	NO-EM and N	C-LB)				
Operation Temperature Vibration Resistance Shock Resistance Shock Resistance Mechanical Life Conforming to Standards Approvals  CSA: pushbuttons 5,000,000 (900 operations per hour), All other switches: 500,000 ENGEVER 1, NO. 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		Horsepower R	ating		Reference Value: 1/4 HP (	@ 120V (1ø no	n-reversing),	1HP @ 240V (	3ø non-revers	ing)	
Vibration Resistance Shock Resistance Shock Resistance Mechanical Life Momentary pushbuttons: 5,000,000 (900 operations per hour), All other switches: 500,000 EN60947-1, EN60947-5-1, VDE0660-200, UL508, CSA C22-2 No.14  Approvals  Approvals  File No. 1982914  Approvals Approvals Approvals  File No. 1982914  Approvals Approvals Approvals Approvals  File No. 1982914  Approvals		Contact Mater	rial		Silver (gold plated contac	ts available - (	contact IDEC)				
Shock Resistance Mechanical Life Momentary pushbuttons: 5,000,000 (900 operations per hour), All other switches: 500,000  EMBOGRAP 1, ENGOS47 5-1, VDEO660-200, ULSOB, CSA C22-2 No.14  Approvals  File No. 198271  File No. 198271		Operating Tem	perature		Operation: -25 to +50°C (	without freezi	ng), Storage:	–40 to +70°C	(without freez	zing)	
Mechanical Life  Conforming to Standards  EN60947-1, EN60947-5-1, VDE0660-200, UL508, CSA C22-2 No.14  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)  UL: pushbuttons and selector switches: A600 pilot lights and illuminated pushbuttons, direct supply 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)  Electric Shock Protection  Degree of Protection  Class 0 conforming to IEC60536  PE6ffrom front of the panel)  (conforming to IEC60529) (conforming to IEC60529) (conforming to IEC60541)  External Short-Circuit Protection  Terminal Referencing  Conforming to EC60947-1)  External Short-Circuit Protection  Terminal Referencing  Conforming to EC60547-1)  External Short-Circuit Protection  Terminal Referencing  Conforming to EC60549  Pushbuttons  Blluminated Pushbuttons  Selector Switches  Contact Block  Type HW-C/HW-F /HW-G  Rated Insulation Voltage  Selector Switches  Pushbutton Selectors  Contact Block  Type HW-C-CHW-F /HW-F on Into Into Into Into Into Into Into I		Vibration Resi	stance		10 to 55Hz, 98m/sec2 (100	G) conforming	to IEC6068-2-	6			
Conforming to Standards  EN60947-1, EN60947-5-1, VDE0660-200, UL508, CSA C22-2 No.14  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)  UL; pushbuttons and selector switches: A600—Provention of the Selector Switches 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)  Electric Shock Protection  Legistration No. 255145 lail order watchedly and illuminated pushbuttons and selector switches: A600—P600 (NO, NC)/0500 (NO-EM, NC-LB) pilot lights and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V)  Electric Shock Protection  Legistration No. 255145 lail order watchedly and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V)  Electric Shock Protection  Legistration No. 255045 lail order watchedly and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V)  Electric Shock Protection  Legistration No. 255045 lail order watchedly and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V)  Electric Shock Protection  Legistration No. 255045 lail order watchedly and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V)  Electric Shock Protection  Legistration No. 255045 lail order watchedly and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V)  Electric Shock Protection  Legistrat		Shock Resistance		980m/sec <sup>2</sup> (100G) conform	ning to IEC606	8-2-7					
Approvals    CSA: pushbuttons and selector switches: A600		Mechanical Life		Momentary pushbuttons:	5,000,000 (90	0 operations p	oer hour), All c	other switches	s: 500,000		
CSA: pushbuttons and selector switches: ABOUT File No. LIBSZ74  CONTROL IN PROBLEMS AND INFORMATIONS AGREED TOWN THIS INCIDENT STATE AND INFORMATION NO. 1985;1981 Bird Library Integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V)  U.: pushbuttons and selector switches: ABOUT Diplot lights and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V)  U.: pushbuttons and selector switches: ABOUT TÜV; pu		Conforming to Standards			EN60947-1, EN60947-5-1	, VDE0660-200	D, UL508, CSA	C22-2 No.14			
(conforming to IEC60529) (conforming to NEMA ICS6-110)  Pollution Degree (conforming to IEC60947-1)  External Short-Circuit Protection  Terminal Referencing  Conforming to CENELEC EN50005  Contact Block  Rated Insulation Voltage  Pushbutton Selector Switches Pushbutton Selectors  Pushbutton Selectors  Pushbutton Selectors  AC 50/60 Hz  Operational Current  Operational Current  Operational Current  Conforming to IEC605299.1  IP20 (Type HW-F contact block) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  Terminal Referencing  Conforming to IEC60269-1  Type HW-C/HW-F /HW-G  600V  Fated Insulation Voltage  AC-15 (A600) DC-13 (P600)  DC-13 (P600)  DC-13 (P600)  DC-13 (P600)  AC-15 (A600) DC-13 (P600)  DC-13 (P600)  DC-15 (A600) DC-16 (A600) DC-17 (A600) DC-18 (A600) DC-18 (A600) DC-18 (A600) DC-18 (A600) DC-18 (A600) DC-19 (A600)	ds & Approvals	Registration No. R9551089 (E-stops) Registration No. B50054316 (Dual Pushbuttons) Registration No. J9650511 (Plot Ughts)  TÜV Rheinland Certificate No. 2006011 (1910 tughts)		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)  TÜV: 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						s with	
(conforming to IEC60529) (conforming to NEMA ICS6-110)  Pollution Degree (conforming to IEC60947-1)  External Short-Circuit Protection  Terminal Referencing  Conforming to CENELEC EN50005  Contact Block  Rated Insulation Voltage  Pushbutton Selector Switches Pushbutton Selectors  Pushbutton Selectors  Pushbutton Selectors  AC-15 (A600)  DC-12 Control of resistive loads & solid state loads  AC-15 Control of resistive loads & solid state loads  RATE OF TRUE HW-F contact block)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)  Pobletical Schools  Type HW-C/HW-F /HW-G  Bated Continuous Current  10A  10A  4C-15 (A600)  DC-13 (P600)  DC-13 (P600)  DC-13 (P600)  DC-13 (P600)  DC-15 (A600)  DC-16 (A600)  DC-17 (A600)  DC-18 (A600)  DC-18 (A600)  DC-19 (A600)  DC-	ında	Electric Shock Protection			Class 0 conforming to IEC	60536					
External Short-Circuit Protection Terminal Referencing  Conforming to CENELEC EN50005  Pushbuttons Illuminated Pushbuttons Selector Switches Pushbutton Selectors  Operational Voltage  Operational Current  Operational Cu	Sta	(conforming to IEC60529)		IP20 (Type HW-F contact block)							
Terminal Referencing  Conforming to CENELEC EN50005  Contact Block Pushbuttons Illuminated Pushbuttons Selector Switches Pushbutton Selectors  Type HW-C/HW-F /HW-G  Rated Insulation Voltage Rated Continuous Current  Contact Ratings by Utilization Category IEC 60947-5-1  Operational Voltage  AC-12 Control of resistive loads & solid state loads AC-15 Control of electromagnetic loads (> 72VA)  DC-12 Control of resistive loads & solid state loads  BA  5A   Type HW-C/HW-F /HW-G  Fated Insulation Voltage  AC-15 (A600) DC-13 (P600)  AC-15 (A600) DC-15		Pollution Degr	ee (conforming	to IEC60947-1)	3 for switches not using a transformer, 2 for switches using a transformer						
Pushbuttons Illuminated Pushbuttons Selector Switches Illuminated Selector Switches Pushbutton Selectors  Operational Current  Operatio		External Short	-Circuit Protecti	on	10A 250V fuse conforming to IEC60269-1						
Pushbuttons Illuminated Pushbuttons Selector Switches Illuminated Selector Switches Pushbutton Selectors  Operational Voltage  Operational Current  Operatio		Terminal Referencing		Conforming to CENELEC EN50005							
Illuminated Selector Switches   Contact Ratings by Utilization Category   LEC 60947-5-1   Contact Ratings by Utilization Category   LEC 60947-5-1   AC-15 (A600)   DC-13 (P600)	gs	Pushbuttons			Contact Block			Type HW-C/	HW-F/HW-G		
Illuminated Selector Switches   Contact Ratings by Utilization Category   LEC 60947-5-1   Contact Ratings by Utilization Category   LEC 60947-5-1   AC-15 (A600)   DC-13 (P600)	latin		shbuttons		Rated Insulation Voltage			600V			
Pushbutton Selectors   Contact Hatings by Utilization Category   EC 60947-5-1					Rated Continuous Current			10A			
Operational Current DC DC AC-12 Control of resistive loads & solid state loads 10A — 10A 10A 6A 2A 1AC 50/60 Hz AC-12 Control of resistive loads & solid state loads 10A — 7A 5A 3A 1A 2.2A 1.1A —	Conta										
AC 50/60 Hz   AC-12 Control of resistive loads & solid state loads   10A   —   10A   10A   6A   2A	S	Operational Vo	oltage			24V	48V	50V	110V	220V	440V
Operational Current	istic		AC E0/00 Hz	AC-12 Control of resistive loa	ds & solid state loads	10A	_	10A	10A	6A	2A
Current DC DC-12 Control of resistive loads & solid state loads 8A 5A — 2.2A 1.1A — DC-13 Control of electromagnets 5A 2A — 1.1A 0.6A —	cter	Operational	AC 30/00 FZ	AC-15 Control of electromagn	etic loads (> 72VA)	10A	_	7A	5A	3A	1A
DC-13 Control of electromagnets 5A 2A — 1.1A 0.6A —	hara	Current	DC	DC-12 Control of resistive loa	ds & solid state loads	8A	5A	_	2.2A	1.1A	_
	3		DC	DC-13 Control of electromagn	ets	5A	2A	_	1.1A	0.6A	_



For dimensions, see page 601.



In place of ②, specify the Lens/LED Color Code.

# LED Lamp Ratings (LSTD Type)

Model			LSTD-6@	LSTD-1@	LSTD-2©	LSTD-H2@	LSTD-M4@	
Lamp Base			BA9S/13					
Rated Vo	oltage		6V AC/DC	12V AC/DC	24V AC/DC	120V AC	240V AC	
Voltage	Range		6V AC/DC ±10%	12V AC/DC ±10%	24V AC/DC ±10%	120V AC ±5%	240V AC ±5%	
Current	AC	A, R, W: G, S:	17mA 8mA	11mA	11mA	10mA	10mA	
Draw	DC	A, R, W: G, S:	14mA 5.5mA	10mA	10mA	_	-	
Color Co	de		,	A (amber), G (green), R (red)	, S (blue), W (white)			
Lamp Ba	ise Col	or	Same as illumination color					
Voltage	Markir	ng	Die stamped on the base					
Life (refe	erence	value)	Approx. 50,000 hours (The luminance reduces to 50% the initial intensity when used on complete DC.)					
			A, R, W	A, R, W				
Internal Circuit			G, S					
				LED Chip  → Protection I  → Zener Diod				

**Switches & Pilot Devices** 





# **Non-Illuminated Round Pushbuttons (Assembled)**









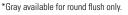


		Round Flush		Round Extended	
Function	Contacts	Plastic Bezel	Metal Bezel	Plastic Bezel	Metal Bezel
	Operator Only	HW1B-M1-①	HW4B-M1-®	HW1B-M2-①	HW4B-M2-①
	1N0	HW1B-M1F10-①	HW4B-M1F10-®	HW1B-M2F10-①	HW4B-M2F10-①
	1NC	HW1B-M1F01-®	HW4B-M1F01-①	HW1B-M2F01-®	HW4B-M2F01-①
Momentary	1NO-1NC	HW1B-M1F11-①	HW4B-M1F11-①	HW1B-M2F11-①	HW4B-M2F11-①
	2N0	HW1B-M1F20-®	HW4B-M1F20-①	HW1B-M2F20-®	HW4B-M2F20-①
	2NC	HW1B-M1F02-®	HW4B-M1F02-®	HW1B-M2F02-®	HW4B-M2F02-①
	2NO-2NC	HW1B-M1F22-①	HW4B-M1F22-①	HW1B-M2F22-®	HW4B-M2F22-①
	Operator Only	HW1B-A1-①	HW4B-A1-①	HW1B-A2-①	HW4B-A2-①
	1N0	HW1B-A1F10-①	HW4B-A1F10-①	HW1B-A2F10-①	HW4B-A2F10-①
	1NC	HW1B-A1F01-®	HW4B-A1F01-①	HW1B-A2F01-①	HW4B-A2F01-①
Maintained	1NO-1NC	HW1B-A1F11-①	HW4B-A1F11-①	HW1B-A2F11-①	HW4B-A2F11-①
	2N0	HW1B-A1F20-①	HW4B-A1F20-①	HW1B-A2F20-①	HW4B-A2F20-①
	2NC	HW1B-A1F02-①	HW4B-A1F02-①	HW1B-A2F02-①	HW4B-A2F02-®
	2NO-2NC	HW1B-A1F22-®	HW4B-A1F22-①	HW1B-A2F22-®	HW4B-A2F22-®

# ① Button Color Code

Color	Code
Black	В
Green	G
Red	R
Blue	S
White	W
Yellow	Υ
Gray	N*

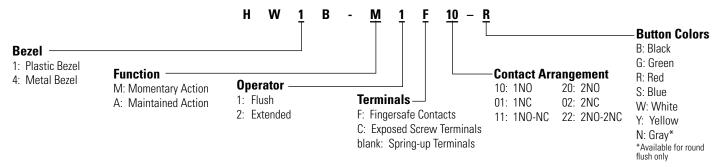




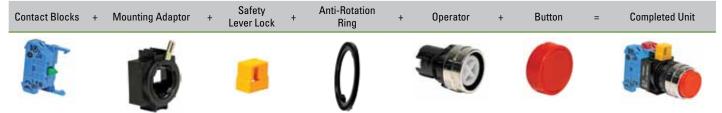


- 4. For contact assembly part numbers, see page 600.
- 5. All assembled part numbers in catalog include standard, fingersafe (HW-F...) contacts.
- 6. Assembled units with spring-up terminals (HW-G...) can be ordered by removing an "F" from the part number (Ex. HW1B-M1F11-R becomes HW1B-M111-R).
- 7. Operator only models include operator plus button.
- 8. Additional contact configurations available (up to 6 total contacts).





# **Non-Illuminated Round Pushbuttons (Replacement Parts)**



#### Contact Blocks

Contact Diocks					
Style	Contacts	1N0	1NC		
	Standard	HW-F10	HW-F01		
CIP.	Fingersafe (IP20)	HW-F10R (early make)	HW-F01R (late break)		
(A)	Spring-Up Terminal	HW-G10	HW-G01		
100		HW-G10R (early make)	HW-G01R (late break)		
ST	Exposed	HW-C10	HW-C01		
2	Screw Terminal		HW-C01R (late break)		
<b>Q</b>	Dummy Block		DB		

#### **Contact Block Mounting Adaptor**

Contact Brook mounting rauptor					
Style	Part Number				
Ó	HW-CB2C				



Used to mount contact blocks to operator.
 IDEC strongly recommends using the safety lever lock to prevent heavy vibration or maintenance personnel from inadvertently unlocking contacts.

# **Anti-Rotation Ring**

Style		Part Number
		HW9Z-RL
A	Use with notched pa unit rotation.	nel cutout to prevent

# Operators

operators					
Style	Style		Metal Bezel		
Round Flush/ Extended	Momentary	HW1B-M0	HW4B-M0		
	Maintained	HW1B-A0	HW4B-A0		

### **Safety Lever Lock**

Style	Part Number		
1	HW9Z-LS		

#### **Buttons**

Style	Part Number
Round Flush	
	HW1A-B1-⊕
Round Extended	
	HW1A-B2-①



 In place of ①, specify the Button Color Code from table.

#### ① Button Color Code

Color	Code	Color	Code
Black	В	White	W
Green	G	Yellow	Υ
Red	R	Gray	N*
Blue	S		



\*Gray available for round flush only.



# **Non-Illuminated Mushroom Head Pushbuttons (Assembled)**











		ø29mm Mushroom Head		ø40mm Mushroom Head	
Function	Contacts	Plastic Bezel	Metal Bezel	Plastic Bezel	Metal Bezel
	Operator Only	HW1B-M3-①	HW4B-M3-①	HW1B-M4-①	HW4B-M4-①
	1N0	HW1B-M3F10-①	HW4B-M3F10-①	HW1B-M4F10-®	HW4B-M4F10-①
	1NC	HW1B-M3F01-①	HW4B-M3F01-①	HW1B-M4F01-①	HW4B-M4F01-①
Momentary	1NO-1NC	HW1B-M3F11-①	HW4B-M3F11-①	HW1B-M4F11-①	HW4B-M4F11-①
	2N0	HW1B-M3F20-①	HW4B-M3F20-①	HW1B-M4F20-®	HW4B-M4F20-①
	2NC	HW1B-M3F02-①	HW4B-M3F02-®	HW1B-M4F02-®	HW4B-M4F02-①
	2NO-2NC	HW1B-M3F22-①	HW4B-M3F22-①	HW1B-M4F22-①	HW4B-M4F22-①
	Operator Only	HW1B-A3-①	<i>HW4B-A3</i> -①	HW1B-A4-①	HW4B-A4-①
	1N0	HW1B-A3F10-①	HW4B-A3F10-®	HW1B-A4F10-①	HW4B-A4F10-①
	1NC	HW1B-A3F01-®	HW4B-A3F01-®	HW1B-A4F01-①	HW4B-A4F01-①
Maintained	1NO-1NC	HW1B-A3F11-①	HW4B-A3F11-①	HW1B-A4F11-①	HW4B-A4F11-①
	2N0	HW1B-A3F20-®	HW4B-A3F20-®	HW1B-A4F20-①	HW4B-A4F20-®
	2NC	HW1B-A3F02-①	HW4B-A3F02-®	HW1B-A4F02-①	HW4B-A4F02-①
	2NO-2NC	HW1B-A3F22-®	HW4B-A3F22-®	HW1B-A4F22-®	HW4B-A4F22-®



		ø60mm Mushroom Head	
Function	Contacts	Plastic Bezel	
	Operator Only	HW1B-M5-①*	
	1N0	HW1B-M5F10-①*	
	1NC	HW1B-M5F01-①*	
Momentary	1NO-1NC	HW1B-M5F11-①*	
	2N0	HW1B-M5F20-①*	
	2NC	HW1B-M5F02-①*	
	2NO-2NC	HW1B-M5F22-@*	

### ① Button Color Code

Color	Code
Black	В
Green	G
Red	R
Blue	S
White	W
Yellow	Υ



- 1. In place of  $\mathbb O$ , specify the Button Color Code from table. 2. \*60mm mushroom available only in red, green, black, and yellow.
- 3. For nameplates and accessories, see page 596 and 599.
- 4. For dimensions, see page 601.
- 5. For contact assembly part numbers, see page 600.
- 6. All assembled part numbers in catalog include standard fingersafe (HW-F...) contacts.
- 7. Assembled units with spring-up terminals (HW-G...) can be ordered by removing an "F" from the part number (Ex. HW1B-M1F11-R becomes HW1B-M111-R).
- 8. Units with exposed screw terminals (HW-C...) must be ordered as sub-components.
- 9. Operator only models include operator plus button.
- 10. Additional contact configurations available (up to 6 total contacts).



#### Н **Button Colors** Bezel B: Black 1: Plastic Bezel G: Green **Contact Arrangement** Function 4: Metal Bezel R: Red Operator -10: 1NO 20: 2NO M: Momentary Action (Not available for 60mm S: Blue mushroom) 3: ø29mm Mushroom **Terminals** 02: 2NC 01: 1NC A: Maintained Action W: White (Not available for 60mm jumbo mushroom pushbutton.) 4: ø40mm Mushroom F: Fingersafe Contacts 11: 1NO-NC 22: 2NO-2NC Y: Yellow 5: ø60mm Mushroom C: Exposed Screw Terminals

#### Non-Illuminated Mushroom Head Pushbuttons (Replacement Parts)

blank: Spring-up Terminals



#### **Contact Blocks**

Contact Diocks				
Style	Contacts	1N0	1NC	
	Standard Fingersafe	HW-F10	HW-F01	
Circles .	(IP20)	HW-F10R (early make)	HW-F01R (late break)	
	Spring-Up	HW-G10	HW-G01	
	Terminal	HW-G10R (early make)	HW-G01R (late break)	
ST	Exposed Screw	HW-C10	HW-C01	
79	Terminal	HW-C10R (early make)	HW-C01R (late break)	
	Dummy Block	TW-	DB	

#### **Contact Block Mounting Adaptor**

Style	Part Number	
O	HW-CB2C	

1. Used to mount contact blocks to operator. 2. IDEC strongly recommends using the safety lever lock to prevent heavy vibration or maintenance personnel from inadvertently unlocking contacts.

# **Safety Lever Lock**

Style	Part Number	
1	HW9Z-LS	

### **Anti-Rotation Ring**

ranci notation inng	
Appearance	Part Number
0	HW9Z-RL

# **Operators**

Style		Plastic Bezel	Metal Bezel
ø29mm Mushroom ø40mm Mushroom		HW1B-M0L	HW4B-MOL
	Maintained	HW1B-A0L	HW4B-AOL
Ø60mm Jumbo Mushroom	Momentary	HW1B-M5-①*	-



- \*60mm mushroom operator includes non-removable button (available in red, black, green and yellow only).
- For nameplates and accessories, see page 596 and 599.
- 3. For dimensions, see page 601.

#### **Buttons**

Style	Part Number
ø29mm Mushroom Cap	HW1A-B3-⊕
ø40mm Mushroom Cap	HW1A-B4-⊕
1. In place of @	, specify the Buttor



# ① Button Color Code

Color	Code	Color	Code
Black	В	Blue	S
Green	G	White	W
Red	R	Yellow	Υ
HW1B-M5 available only in blac			





# **Non-Illuminated Square Pushbuttons (Assembled)**







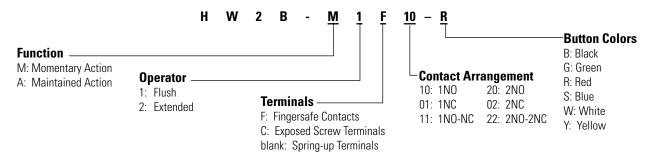
Function	Contacts	Square Flush	Square Extended
runcuon	Contacts	Plastic Bezel	Plastic Bezel
	Operator Only	HW2B-M1-①	HW2B-M2-①
	1N0	HW2B-M1F10-®	HW2B-M2F10-①
	1NC	HW2B-M1F01-①	HW2B-M2F01-①
Momentary	1NO-1NC	HW2B-M1F11-①	HW2B-M2F11-①
	2N0	HW2B-M1F20-®	HW2B-M2F20-®
	2NC	HW2B-M1F02-®	HW2B-M2F02-®
	2NO-2NC	HW2B-M1F22-®	HW2B-M2F22-①
	Operator Only	HW2B-A1-①	<i>HW2B-A2</i> -①
	1N0	HW2B-A1F10-®	HW2B-A2F10-®
	1NC	HW2B-A1F01-①	HW2B-A2F01-①
Maintained	1NO-1NC	HW2B-A1F11-①	HW2B-A2F11-①
	2N0	HW2B-A1F20-①	HW2B-A2F20-①
	2NC	HW2B-A1F02-®	HW2B-A2F02-①
	2NO-2NC	HW2B-A1F22-①	HW2B-A2F22-①

#### ① Button Color Code

Color	Code
Black	В
Green	G
Red	R
Blue	S
White	W
Yellow	Υ



- 1. In place of 1, specify the Button Color Code from table.
- 2. For nameplates and accessories, see page 596 and 599.
- 3. For dimensions, see page 601.
- 4. For contact assembly part numbers, see page 600.5. Square pushbuttons available in plastic bezel only.
- 6. All assembled part numbers in catalog include standard fingersafe (HW-F...) contacts.
- 7. Assembled units with spring-up terminals (HW-G...) can be ordered by removing an "F" from the part number (Ex. HW2B-M1F11-R becomes HW1B-M111-R).
- 8. Units with exposed screw terminals (HW-C...) must be ordered as sub-components.
- 9. Operator only model includes operator and button.
- 10. Additional contact configurations available (up to 6 total contacts).



# **Non-Illuminated Square Pushbuttons (Replacement Parts)**



#### **Contact Blocks**

Outlast Biocks				
Style	Contacts	1N0	1NC	
	Standard	HW-F10	HW-F01	
	Fingersafe (IP20)	HW-F10R (early make)	HW-F01R (late break)	
Par -	Spring-Up	HW-G10	HW-G01	
61	Terminal	HW-G10R (early make)	HW-G01R (late break)	
ST	Exposed Screw Terminal	HW-C10	HW-C01	
20		HW-C10R (early make)	HW-C01R (late break)	
1	Dummy Block	TW-DB		

### **Contact Block Mounting Adaptor**

Style	Part Number
Ø	HW-CB2C



Used to mount contact blocks to operator.
 IDEC strongly recommends using the safety lever lock to prevent heavy vibration or maintenance personnel from inadvertently unlocking contacts.

#### **Safety Lever Lock**

Style	Part Number
1	HW9Z-LS

#### **Anti-Rotation Ring**

Appearance Part Numbe		
0	HW9Z-RL	
Use with notched panel cutout to		



prevent unit rotation.

#### **Operators**

Style		Plastic Bezel
Square Flush Extended	Momentary	HW2B-M0
	Maintained	HW2B-A0
2 For namerical	Maintained	



- 2. For nameplates and accessories, see pages 596 and 599.
- 3. For dimensions, see page 601.

# Buttons

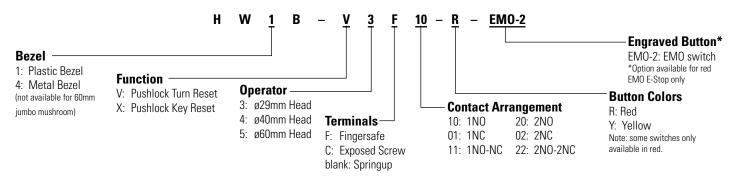
Style	Part Number	
Square Flush		
	HW2A-B1-®	
Square Extended		
	HW2A-B2-®	
1. In place of ①, sp	ecify the Button	

# ① Button Color Code

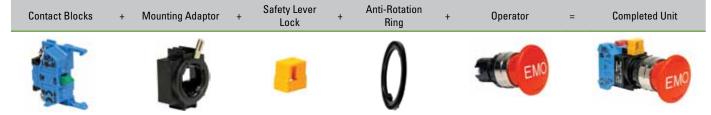
Color	Code	Color	Code
Black	В	Blue	S
Green	G	White	W
Red	R	Yellow	Υ

Color Code from table.





## Non-Illuminated E-Stop Pushbuttons (Replacement Parts)



#### **Contact Blocks**

Contact Diocks				
Style	Contacts	1N0	1NC	
	Standard	HW-F10	HW-F01	
en-	Fingersafe (IP20)	HW-F10R (early make)	HW-F01R (late break)	
( )	Spring-Up	HW-G10	HW-G01	
	Terminal	HW-G10R (early make)	HW-G01R (late break)	
67	Exposed Screw	HW-C10	HW-C01	
70	Terminal	HW-C10R (early make)	HW-C01R (late break)	
1	Dummy Block	TW-DB		

#### **Contact Block Mounting Adaptor**

Style Part Number  HW-CB2C

1. 2.

Used to mount contact blocks to operator. IDEC strongly recommends using the safety lever lock to prevent heavy vibration or maintenance personnel from inadvertently unlocking contacts.

#### **Safety Lever Lock**

•			
Style	Part Number	Appearance	Part Number
1	HW9Z-LS		HW9Z-RL

**Anti-Rotation Ring** 



Use with notched panel cutout to prevent unit rotation.

# **Operators**

Style	Plastic		Metal
ø29mm Head Pushlock Turn Reset		HW1B-V3R	HW4B-V3R
A	yellow	HW1B-V3Y	HW4B-V3Y
ø40mm Head Pushlock Turn Reset	red	HW1B-V4R	HW4B-V4R
		HW1B-V4Y	HW4B-V4Y
ø40mm Head EMO Pushlock Turn Reset*			HW4B-V4R-EM0-2
EMO EMO	HW1B-V4R-EMO-2		
ø40mm Head Pushlock Key Reset*			
	HW1B-X4R		HW4B-X4R
ø60mm Head Pushlock Turn Reset*			
	HW1B-V5R		_



- \*Available in red only.
- 2. All E-Stop buttons are not removable from the operator.

