

HP7

Contactless Hall effect momentary pushbutton



HP7 series momentary pushbuttons utilize Hall effect sensor technology and last up to 10 million cycles. These rugged pushbuttons withstand harsh environments and are available dusttight and moistureproof to IP64 or watertight to IP68S.

Exposed, raised and flush dome buttons come in nine colors. A mechanical detent option is available for tactile feedback. Case and bezel are precision-machined aluminum alloy with a black or clear coat anodized finish. PC pins or wire leads are standard; value-added connectors are available.

Prime applications are those requiring repeated “jogging” and other continuous operation. Examples include material handling equipment, such as loaders, lift trucks, bucket and shovel and other applications where positioning of the load is critical.

Product Features

- Up to 10 million cycles
- Electronics sealed to IP64 or watertight to IP68S
- Three dome button styles available in nine color options
- Momentary action
- Choice of termination styles
- Digital programmable output
- Supply voltage 4.5-24V
- Mechanical detent available for tactile feedback
- RoHS compliant

HP7 PART NUMBER CODE

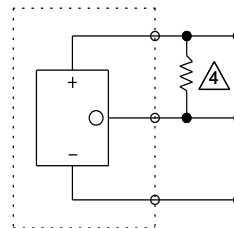
HP7	-	X	X	X	X	X
Dome Style		Action	Terminal Style	Seal Level	Case Color	Button Color
DE. Exposed Dome DF. Flush Dome DR. Raised Dome		1. Normally High Momentary 2. Normally High Momentary with Detent 3. Normally Low Momentary 4. Normally Low Momentary with Detent	3. 3 Pin Header 5. 18" Potted 26 AWG Wire Leads	2. Dusttight 3. Watertight	1. Clear 2. Black	1. Red 2. Black 3. Orange 4. Yellow 5. Green 6. Blue 7. Purple 8. Gray 9. White

Technical drawings of HP7 switches showing Exposed Dome, Raised Dome, and Flush Dome styles. Dimensions include diameters (Ø.690, Ø.467), heights (.385, .361, .27), and pin head/wire lead terminations (.448 TO FLAT, .736, .652, .713, .628). Pin configurations are labeled: PIN 1 - INPUT, PIN 2 - GROUND, PIN 3 - OUTPUT. Wire lead terminations are: INPUT - RED, GROUND - BLACK, OUTPUT - YELLOW.

	PIN HEAD TERMINATION	WIRE LEAD TERMINATION
A - Exposed Dome	.736	.652
B - Raised Dome	.713	.628
C - Flush Dome	.713	.628

Standard Characteristics/Ratings:	
MECHANICAL:	
Mechanical Life:	10,000,000 cycles without detent
Button Travel:	0.080 inches max
Overtravel:	0.010 inches min
Operating Force:	Without detent: 16 oz +/- 8 oz With detent: 28 oz +/- 8 oz
Operating Point:	0.040 inches +/- 0.010
Electrical Life:	10,000,000 cycles
ELECTRICAL RATINGS: Rated at Vcc = 5V @ 25°C Load = 1mA (4.7KΩ)	
Electrical	Units Min Max
Supply Voltage	VDC 3.0 24
Reverse Output Voltage	VDC N/A 0.5
Supply Current	mA N/A 9
Continuous Output Current	mA N/A 18
Reverse Battery Protection	VDC N/A -15
ELECTRONICS:	
Seal:	IP64 or IP68S
ENVIRONMENTAL:	
Operating Temp Range:	-40°C to +85°C
Storage Temp Range:	-60°C to +105°C
MATERIALS:	
Button:	Thermoplastic
Case:	Aluminum alloy
Mounting Hardware:	Hex nut & lockwasher

TYPICAL APPLICATION



4 EXTERNAL PULL-UP RESISTOR NOT INCLUDED WITH SWITCH (10KΩ TYPICAL)

Normally High option: Output is at supply voltage at rest. On actuation, output voltage goes to nearly ground and allows current to flow between ground and output wire.

Normally Low option: Output voltage goes to nearly ground and allows current to flow between ground and output wire. On actuation, output switches to supply voltage.