10 MILLION CYCLES, CONTACTLESS HALL EFFECT TECHNOLOGY

Designated the HP7 series, these momentary pushbutton switches utilize Hall Effect sensor technology for long life contactless switching, with 10 million cycles. Available in dusttight and moistureproof sealed configurations, these switches can also be watertight sealed to IP68S. The stylish dome-shaped pushbuttons are available in a choice of nine colors.

Case and bezel are precision-machined aluminum alloy, available with either a black or clear coat anodized finish. Three case and button styles are offered in raised dome, flush dome and exposed dome styles. PC pins or wire leads are standard, with value-added connectors available to specification.

This rugged switch is designed to withstand harsh environments while being subjected to high rates of actuation. Applications that require repeated "jogging" and other continuous operations are prime applications for the HP7 Hall Effect Switch. Examples of such can be found in material handling equipment such as loaders, lift trucks, bucket and shovel, and other applications where positioning of the load is critical.
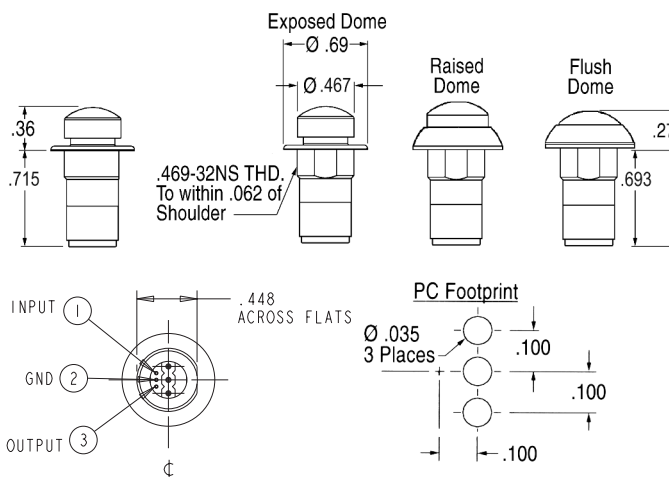

Raised Dome with 3 Pin Header

Exposed Dome with Wire Leads

Features:

- **10 million cycles**
- **Hall Effect sensor technology for long life**
- **Moistureproof & dusttight to IP64 or watertight to IP68S**
- **Stylish dome-shaped buttons in nine colors**
- **Momentary action**
- **Choice of termination styles**
- **Mechanical detent available for tactile feedback**
- **RoHS & WEEE compliant**

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	4.5	24
Reverse Output Voltage	VDC	N/A	0.5
Supply Current	mA	N/A	9
Continuous Output Current	mA	N/A	25
Reverse Battery Protection	VDC	N/A	-30

ELECTRONICS:

Seal Integrity:	IP64 or IP68S

ENVIRONMENTAL:

Operating Temp Range:	-40°C to +85°C
Storage Temp Range:	-55°C to +105°C

MATERIALS:

Button:	Thermoplastic
Case:	Aluminum alloy
Mounting Hardware:	Hex nut & lockwasher

Exposed Dome
Ø .69
Ø .467

Raised Dome

Flush Dome

.36
.715
.469-32NS THD. To within .062 of Shoulder
.27
.693

INPUT 1
GND 2
OUTPUT 3
.448 ACROSS FLATS

PC Footprint
Ø .035 3 Places
.100
.100
.100

HP7 PART NUMBER CODE

HP7 – X X X X X X

Dome Style	Action	Terminal Style	Seal Level	Case Color	Button Color
DF. Flush Dome **DR.** Raised Dome **DE.** Exposed 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 & Moistureproof **3.** Watertight	**1.** Clear **2.** Black	**1.** Red **2.** Black **3.** Orange **4.** Yellow **5.** Green **6.** Blue **7.** Purple **8.** Gray **9.** White