

# HS series

## Sealed 5-way switch based miniature joystick

Distinctive features and specifications



- 5-way with center pushbutton option
- Positive tactile feedback
- MOM-OFF-MOM action
- Threaded bush mount option
- Sealed to IP68 and IP69K
- Connectorized housing

### CURRENT/VOLTAGE RATING WITH RESISTIVE LOAD

CONTACT	RATING	LIFECYCLES
• Gold plated (G)	- 10mA @ 30VDC	- 200,000 operations
• Silver plated (S)	- 100mA @ 30VDC	- 100,000 operations
• Mechanical life	- 300,000 operations	
• Insulation resistance	- Min 100M $\Omega$ (250VDC by insulation resistance meter)	
• Voltage withstand	- 500VAC for 1 minute	
• Contact resistance	- Max 200m $\Omega$ (by YHP4328A)	
• Electrical function	- MOM-OFF-MOM	

### MECHANICAL

- Operating Force: 5.56N $\pm$ 0.53N (1.25lbf $\pm$ 0.12lbf)<sup>1</sup>
- Maximum Vertical Load: 200N (45lbf)<sup>1</sup>
- Maximum Horizontal Load: 150N (33.7lbf)<sup>1</sup>
- Lever travel: 30° ( $\pm$ 15°)
- Mass/weight: 17g (0.0375lb) (Option HS1DXXXXA)

### TERMINATION

- Manufacturer: Molex
- Manufacturer part number: 501331-0607
- Product range: Pico-Clasp™
- Circuits: Six
- Pitch: 1.00mm
- Mating connector: Molex 501330-0600

### ENVIRONMENTAL

- Sealing: IP68, IP69K<sup>2</sup>
- Operating temperature: -25°C to +80°C (-13°F to +176°F)

### OPTIONAL MATING HARNESS<sup>3</sup>

- Wire type: 28AWG 25cm PTFE
- Connector: Molex 501330-0600

### PUSHBUTTON SWITCH (Option 6 Handle)

- Electrical life: 100,000 cycles
- Rating: 50 mA, 12VDC
- Terminal: Brass with silver plating
- Contact resistance: 100 milliohms max.
- Insulation resistance: 100 megohms min. 500VDC
- Dielectric strength: 250VAC /1 minute
- Contact arrangement: 1 pole 1 throw
- Operation force: 1.5lbf
- Stop strength: Max 3kgf vertical static load for 15 seconds
- Operating temperature: -25°C to +70°C (-13°F to +158°F)
- Storage temperature: -30°C to +85°C (-22°F to +185°F)



### NOTES:

1. Force applied to the top of the castle cap.
  2. All options are IP68 and IP69K rated, however Drop-in mounting does not prevent panel ingress.
  3. The HS Series tactile toggle switch is fitted with a six terminal Molex (501331-0607) connector. A mating harness is not included, but may be specified at the time of order for an additional charge. The 4-function harness is part number 505-508. The 5-function harness, necessary for the Option 6 Handle is part number 505-509.
- All values are nominal.

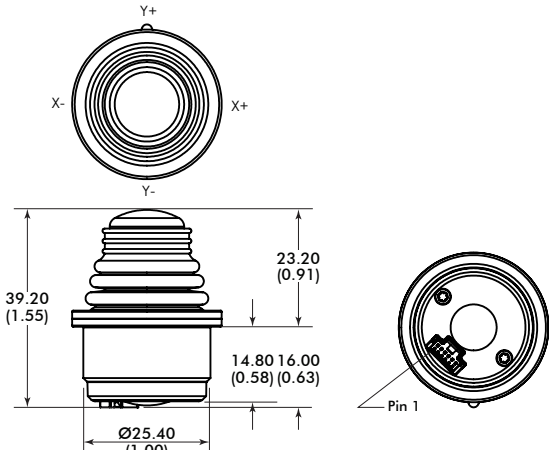
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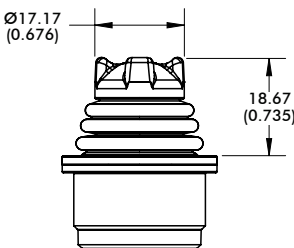
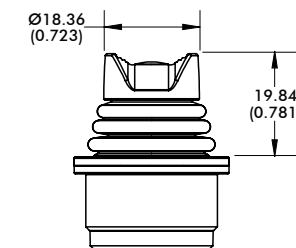
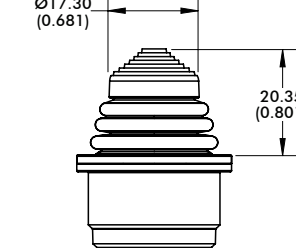
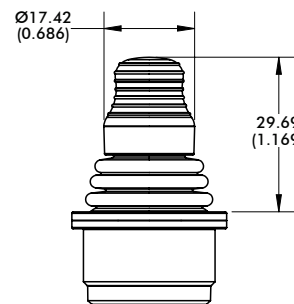
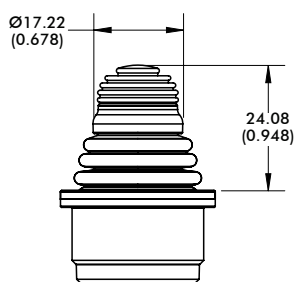
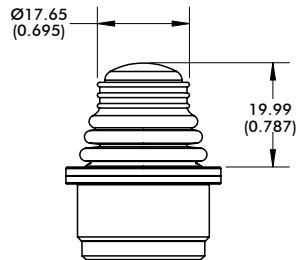
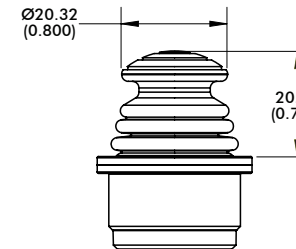
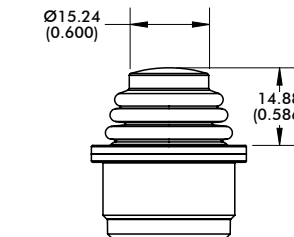
### Overview

<b>HS</b>						<b>A</b>
<b>SERIES</b>	<b>Handle</b>	<b>Mounting Style</b>	<b>Termination</b>	<b>Limiter</b>	<b>Contact</b>	
	0 None 1 Castle 2 Winged Hat 3 Conical 4 Finger Tip 5 Round Jog 6 Pushbutton 7 Mushroom* 8 Low Profile*	N None D Drop-in R Rear Mount A Drop-in and Rear Mount T Threaded Housing	1 1.00mm (0.039in) Pitch Molex Connector 2 1.00mm (0.039in) Pitch Molex Connector with 10" Mating Harness	2 2-way  4 4-way 	S Silver Plated G Gold Plated	

\* = Not available with Threaded Housing (Mounting Style Option "T")



WIRING		
CONNECTOR POSITION	FUNCTION	WIRE HARNESS
1	Top Switch*	Orange
2	X+ Switch	Blue
3	Y+ Switch	Yellow
4	X- Switch	Blue / White
5	Y- Switch	Yellow / Black
6	Common	White
* = Optional		

HANDLE OPTIONS			
<b>1. CASTLE</b> 	<b>2. WINGED HAT</b> 	<b>3. CONICAL</b> 	<b>4. FINGER TIP</b> 
<b>5. ROUND JOG</b> 	<b>6. PUSHBUTTON</b> 	<b>7. MUSHROOM</b> 	<b>8. LOW PROFILE</b> 

NOTE: Dimensions are in mm/(inch)

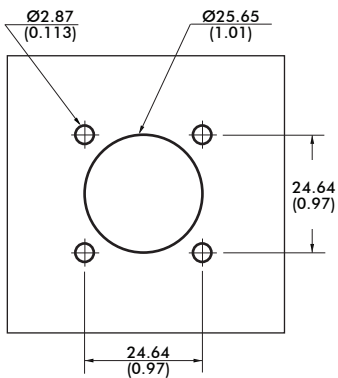
Note: The company reserves the right to change specifications without notice.

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Mounting options and accessories

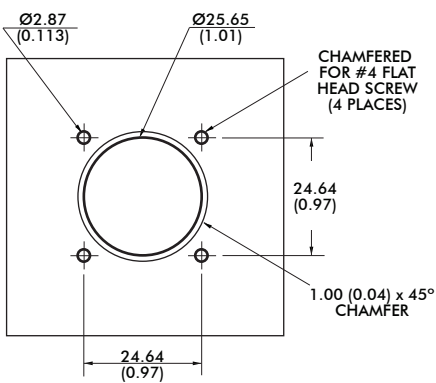
### PLASTIC HOUSING – DROP-IN OPTION CUTOUT DIMENSIONS



4 x PUSH IN CONNECTORS



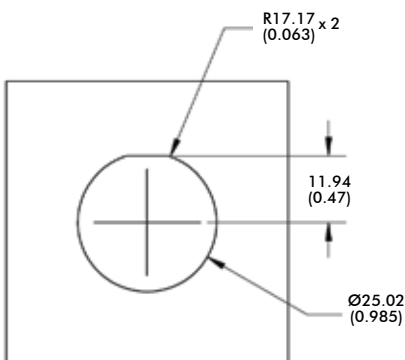
### PLASTIC HOUSING – REAR MOUNT OPTION CUTOUT DIMENSIONS



4 x 1/2 FH SS PHIL SCREW



### METAL THREADED HOUSING – DROP-IN OPTION CUTOUT DIMENSIONS



#### NOTES:

1. The maximum panel thickness for the Rear Mount configuration is 2.032mm/(0.08in).
2. The under panel depth for the Drop-in configuration is 16.02mm/(0.631in).
3. The under panel depth for the Metal Threaded Housing configuration is 14.55mm/(0.573in).
4. Dimensions are in mm/(inch).

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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[HS1T24GA](#) [HS3T22GA](#) [HS6T24GS](#) [HS1A24GA](#) [HS6T24GA](#) [HS6T24SA](#) [HS1A14SA](#) [HS1A12SA](#) [HS6T22SA](#)