

JHT Z-Axis Miniature Hall Effect Joystick



WITHOUT PUSHBUTTONS

JHT Z-AXIS



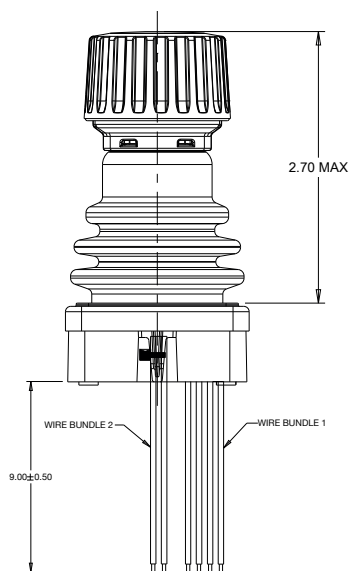
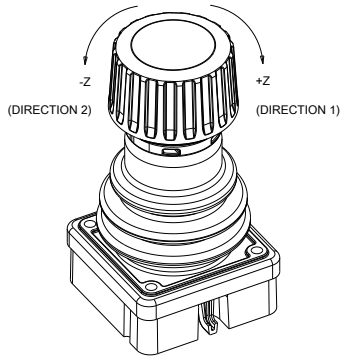
WITH PUSHBUTTONS

The JHT Z-Axis is like the JHT Miniature Series Hall Effect Joystick, except it has a Z-Axis knob on the top of the joystick that rotates 60°. Choose from detent, friction hold and spring return to center with various gating options.

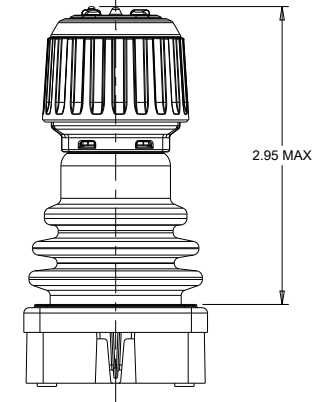
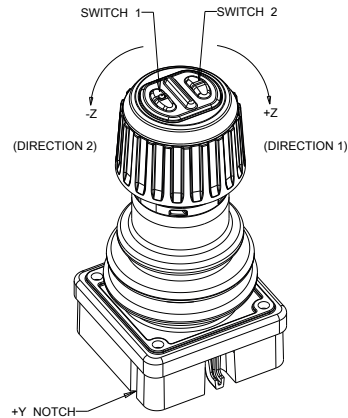
The compact design and robust construction make it ideal for applications requiring precision control in a limited space. Applications include robotics, construction equipment, hydraulic controls, medical and surgical equipment, and security cameras. Joystick electronics are sealed to IP68S, and EMI/RFI immunity are per SAE J1113 specifications.

- 60° rotational movement of the knob
- Compact design
- Contactless Hall effect technology
- Joystick tested to 5 million operational cycles in all directions; Z-Axis and pushbuttons to 1 million
- CANbus, SPI or analog output
- Optional pushbutton switches
- Joystick electronics sealed per IP68S
- RoHS compliant

Z-AXIS

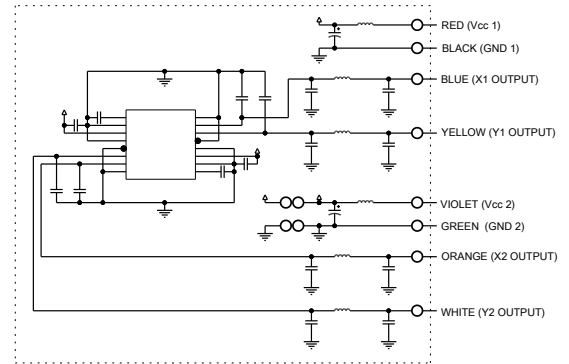


Z-AXIS WITH PUSHBUTTONS



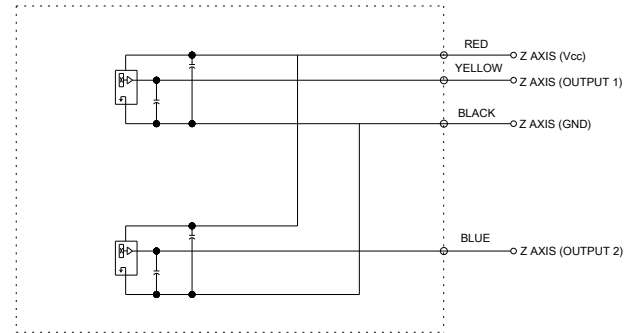
WIRES NOT SHOWN IN ALL VIEWS FOR CLARITY

| ANALOG JOYSTICK | | | | |
|--|---|------|------|-------|
| RATED AT V _{cc} = 5V @ 20° C LOAD = 1ma (4.7K Ω) | UNITS | MIN | TYP | MAX |
| SUPPLY VOLTAGE | VDC | 4.50 | 5.00 | 5.50 |
| OUTPUT VOLTAGE TOLERANCE AT CENTER (SEE APPROPRIATE GRAPH FOR OUTPUT VOLTAGES) | VDC @5V V _{cc} | -.25 | N/A | + .25 |
| OUTPUT VOLTAGE TOLERANCE FULL TRAVEL (SEE APPROPRIATE GRAPH FOR OUTPUT VOLTAGES) | VDC @5V V _{cc} | -.25 | N/A | + .25 |
| SUPPLY CURRENT PER OUTPUT B=0, V _{cc} =5V, 1 α =0 | mA | N/A | 10 | 12 |
| OUTPUT IMPEDANCE | k Ω | N/A | 1.0 | N/A |
| JOYSTICK | | | | |
| MECHANICAL LIFE ALL DIRECTIONS | 5,000,000 CYCLES | | | |
| TRAVEL ANGLE | DEGREES | 18 | 20 | 22 |
| OVER TRAVEL ANGLE | DEGREES | 0.5 | 1.0 | 1.5 |
| MAX ALLOWABLE RADIAL FORCE (STYLES 11, 12, & 21) @ GRP | LBS | N/A | N/A | 50 |
| MAX ALLOWABLE RADIAL FORCE (ALL OTHER STYLES) @ GRP | LBS | N/A | N/A | 15 |
| JOYSTICK | | | | |
| ELECTRONIC ENCLOSURE DESIGN | ISO 20653, IP6K8S - DUSTTIGHT, CONTINUOUS IMMERSION, 1 METER FOR 31 MINUTES, STATIONARY DURING TEST(S) | | | |
| EMI/RFI WITHSTAND | PER SAE J1113 CONTACT FACTORY FOR DETAILS | | | |
| MATERIAL: | | | | |
| HOUSING | THERMOPLASTIC, BLACK | | | |
| BELLOWS | SILICONE, BLACK | | | |
| HARDWARE | NOT PROVIDED | | | |



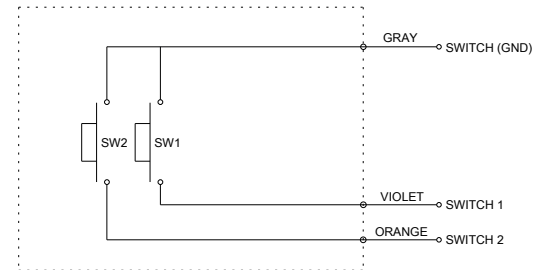
GENERAL SCHEMATIC

(WIRE BUNDLE 1)
ALL OUTPUTS ARE NOT PRESENT IN ALL CONFIGURATIONS



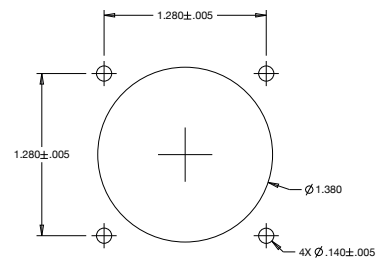
Z-AXIS SCHEMATIC

(WIRE BUNDLE 2)
ALL WIRES ARE NOT PRESENT IN ALL CONFIGURATIONS
NOT INCLUDED IN SPI MESSAGE



Z-AXIS WITH PUSHBUTTONS SCHEMATIC

(WIRE BUNDLE 2)
ALL WIRES ARE NOT PRESENT IN ALL CONFIGURATIONS
NOT INCLUDED IN SPI MESSAGE



SUGGESTED PANEL OPENING
MAX. PANEL THICKNESS OF 0.140