## HALL EFFECT TECHNOLOGY JOYSTICK

The JH Series Joystick is designed around the rugged mechanism of a traditional 4-way hydraulic joystick, but it utilizes contactless Hall effect technology for increased life and more dependable performance in the field. This combination provides performance and features never before available in an electronic joystick. The JH series uses OTTO's field-proven dual magnet configuration found in OTTO's HPL Linear Output Hall Effect switches. The Hall effect sensors are fully protected against electromagnetic and radio frequency interference (EMI and RFI) up to 100V/M. Programmable sensors with built-in magnetic temperature compensation logic ensure consistent and repeatable operation. The JH series is designed for maximum flexibility in features and in tactile feel. A wide variety of input and output configurations are available to satisfy different applications. The modular electronic package can be configured for both standard and custom I/O requirements including CANbus and other output options available.

JOYSTICKS

## **Features:**

- Adapts to a wide variety of shaft styles
- 15 million cycle life in all directions
- 300 lbs. static load strength at grip reference point (grp)
- Electronics sealed to IP68S
- Excellent EMI/RFI immunity
- Factory programmable pretravel & overtravel
- Analog, CANbus, USB & other custom output options available
- Redundant outputs available
- Fail safe & neutral indicator available
- Single and dual axis available
- Z axis available with universal grip only
- Programmable sensors
- 5V standard regulator available to accommodate a 9-32VDC power supply input
- Various output configurations

Indicate. Control. Connect.

- Available with a variety of grip & switch options
- RoHS compliant



JH Joystick Shown with OTTO Medium Universal Grip, K1 Rockers and P3 Pushbutton Switches

#### Votre distributeur officiel

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# JOYSTICKS

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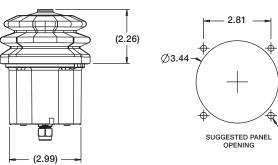
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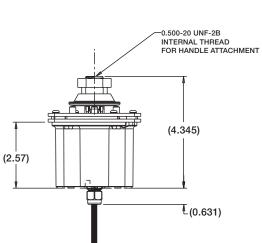
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HALL EFFECT CONTROLS

### HALL EFFECT TECHNOLOGY JOYSTICK

Standard Characteristics/Ratings:						
GENERAL:						
Sensor Type:	Hall effect analog, 1 or 2 outputs per axis					
Design:	Dual magnet					
ELECTRICAL RATINGS: Rated at 5V @ 20°C Load = 1ma (4.7k $\Omega$ )						
Electrical		Units	Min	Тур	Max	
Output Voltage 0° to 2° Tolerance at Center	Deflection @ 5V Vcc	VDC	-0.15	N/A	+0.15	
Output Voltage 19° to 20° Tolerance at Full Load	Deflection @ 5V Vcc	VDC	-0.15	N/A	+0.15	
Supply Current Per Sens	or	mA	N/A	N/A	10	
Output Source Current L	imit	mA	-1	N/A	1	
MECHANICAL:						
Mechanical Life:	5,000,000 min. up to 15,000,000 in all directions depending on configuration					
Travel Angle:	20° typical					
Operating Force:	With bellows, 20°C to 85°C at grip, 1 lbs. min to 7 lbs. max With bellows, -40°C at grip, 13.0 lbs. min to 18.0 lbs. max depending on selected spring					
ENVIRONMENTAL:						
Operating Temp Range:	-40°C to +85°C					
Humidity:	96% RH, 70°C, 96 hours					
Vibration:	10g, 24Hz to 2KHz swept sinusoidal					
Electronics:	Sealed to IP68S					
EMI/RFI:	Withstand per SAE J1113 (typical), contact factory for details					
Sand/Dust:	Without bellows, withstand per SAE J1455					
MATERIALS:						
Housing:	Polyester					
Bellows:	EPDM, black					
Cable:	22 AWG (19	22 AWG (19 strands of 34 AWG TSC)				
Mounting Hardware:	1/4-20 x 3/4 carriage bolts, self-locking nuts					





Analog Hall Joystick

