# SINGLE AXIS RETURN TO CENTER JOYSTICK

### JHS-RC RETURN TO CENTER

#### SINGLE AXIS HALL EFFECT JOYSTICK WITH RETURN TO CENTER FEATURE



The JHS-RC0001 is a high reliability single axis, spring-returnto-center joystick, resistant to the levels of temperature, shock, vibration and EMI/RFI typically found in off-highway construction environments. The contactless Hall effect sensor eliminates many of the failures associated with traditional joystick technology. The JHS-RC has been tested to four million cycles with no sign of boot wear and no degradation of electrical performance. The electronics are sealed to IP68S. It offers immunity to RFI and EMI per SAE J1113; standard 0.5 to 4.5VDC proportional output. The JHS-RC is recommended for the construction and off-road vehicle market.

## **Features:**

- Rugged compact design
- Hall effect contactless sensing
- Tested to 4 million cycles
- Smooth spring return to center
- +/- 25° travel in a rugged housing
- Outstanding EMI/RFI immunity
- Redundant output available
- RoHS compliant





ALDERS electronic GmbH Arnoldstraße 19 47906 Kempen

+49 2152 8955-0 vertrieb@alders.de / www.alders.de

#### Standard Characteristics/Ratings:

ELECTRICAL RATINGS: Rated at 5V @ 20°C Load = 1ma (4.7kΩ)

Electrical				
	Units	Min	Тур	Max
Supply Voltage	VDC	4.5	5	5.5
Output Tolerance at Full Travel Direction 1 (+ Travel)	VDC @ 5V Vcc	25	N/A	+.25
Output Tolerance at Full Travel Direction 2 (- Travel)	VDC @ 5V Vcc	25	N/A	+.25
Output Tolerance at Center	VDC @ 5V Vcc	25	N/A	+.25
Supply Current Per Sensor	mA	N/A	N/A	10

(B = 0, Vcc = 5V, Io = 0)

#### ELECTRONICS:

Seal Integrity:	Electronics watertight per IP68S
MECHANICAL:	
Mechanical Life:	4 million cycles
Travel Angle:	25° typical, 24° min to 26° max
Operating Force:	2.5 lbs. typical, 1.5 lbs. min to 3.5 lbs. max
ENVIRONMENTAL:	
Operating Temp Range:	-40°C to +85°C
Humidity:	96% RH, 70°C, 96 hours
Vibration:	Per MIL-810F min integrity
RFI:	Withstand per SAE J1113
EMI:	Withstand per SAE J1113
MATERIALS:	
Housing:	Thermoplastic
Bellows:	EPDM, black (typical)
Cable:	3/22 AWG (19 strands of 34 AWG TSC) PVC/Polyurethane blend outer jacket
Mounting Hardware:	10-24 x 3/4 carriage bolts, self-locking nuts

## SINGLE AXIS RETURN TO CENTER JOYSTICK

#### SINGLE AXIS HALL EFFECT JOYSTICK WITH RETURN TO CENTER FEATURE

