

## 3-axis Contactless Joystick JS3X-4.5V-B-HD

SENSTEK has 3-axis contactless joystick JS3X-4.5V-B-HD, incl. XYZ axis measurement: left-right rotation, forward/reverse, left/right, each axis can reach up to  $\pm 20$  degree.

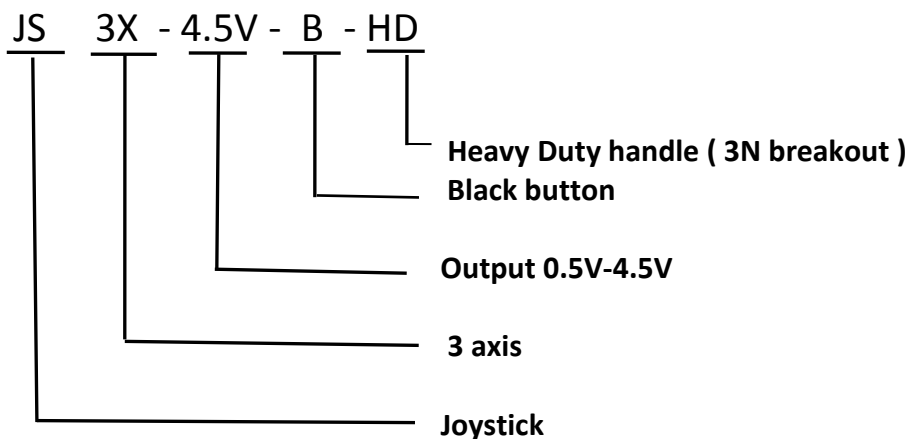
For each axis, one programmable hall sensor is used to fulfill zero adjustment, linearity adjustment, full-scale output adjustment, and temperature compensation. Each axis is calibrated by 11 points, total 33 points calibration by XYZ axis. It is widely used in precise joystick control, full scale linearity up to 1%, especially prominent feature: zero output is 2.48-2.52V at 5V power supply. Safety and long service life (5 Million operation) are excellent.

As for the production, fully automatic calibration devices are utilized, 3 minutes for total calibration and verification periods, which can be quick and no production errors.

JS3X-4.5V-B-HD has small size, low operating power and high reliability, can be ideal for electric wheelchair, robot, CCTV control and CNC machine tools, professional camera control, etc.



**1: Part number:** JS3X-4.5V-B-HD, 3 axis Joystick, 0.5-4.5V output for each axis, black ON/OFF button, heavy duty handle

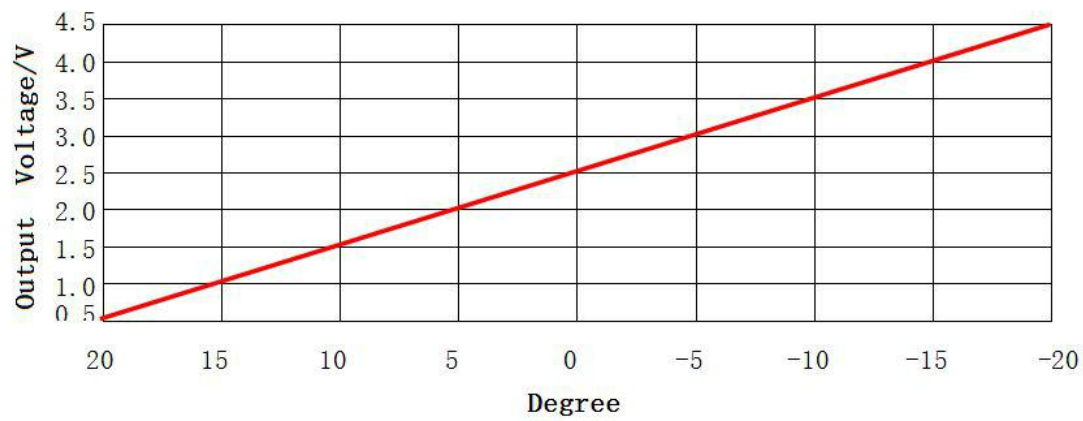


## 2: Performance

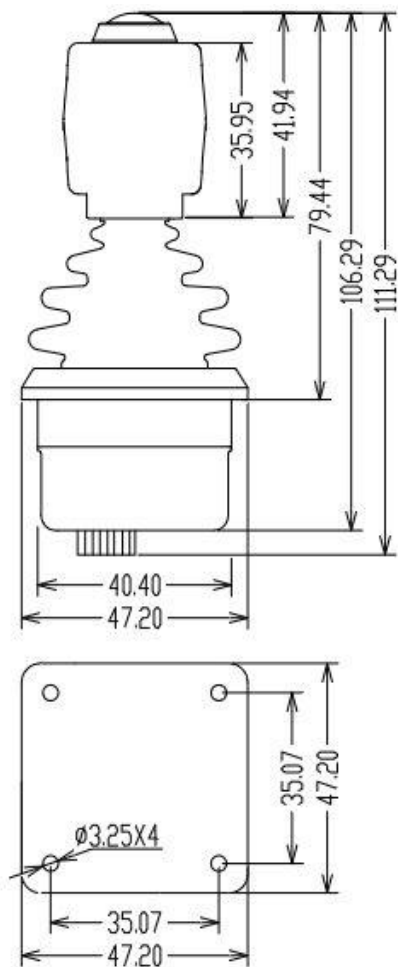
<b>Mechanical</b>	
<b>XY Axis ( Lever operating force )</b>	
Breakout	3 N
Operating	4.5 N
Max allowable	250 N
<b>Z Axis ( Handle rotational torque )</b>	
Breakout	0.04 Nm
Operating	0.06 Nm
Max allowable	1.0 Nm
Lever action	Self centering
Weight	90g
Handle mechanical angle ( X axis )	$\pm 20^0$
Handle mechanical angle ( Y axis )	$\pm 20^0$
Excepted life	5 million operations
<b>Environmental</b>	
Operate temp (compensated)	-25 to 100 degree
Storage temp	-40 to 125 degree
Environmental protection above flange	IP65
Sensor type	Hall effect sensor
Supply voltage	$5 \pm 0.5V$
Max supply voltage	-8.5 ~ 18VDC
Output impedance	100 $\Omega$ each axis
Center reference output(no load)	2.48-2.52V @ 5V
Center reference impedance	1.1 K $\Omega$
Current consumption-max	24mA
Output ramp	Linear output of each axis

<b>Electrical</b>				
Spec (5.0 $\pm$ 0.01VDC power supply, 25 $^{\circ}$ C), output is linear with power supply				
Item	Min	Typ	Max	Unit
Power supply	4.5	5.0	5.5	Vdc
Power current		21	30	mA
Zero output (0 degree)	2.48	2.5	2.52	Vdc
Forward/Left full deflection output ( - 20 degree )	0.47	0.5	0.53	Vdc
Forward/Left full deflection output ( + 20 degree )	4.48	4.5	4.52	Vdc
Linearity output		$\pm 0.3$	$\pm 1$	%FSS
Response Time			1.0	ms

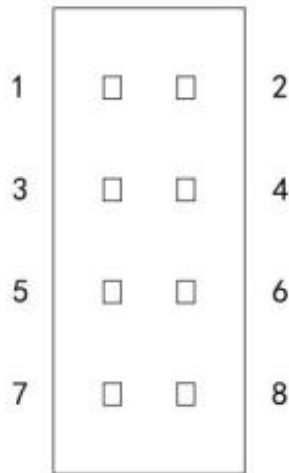
## 3: Output Curve



## 4: Dimension

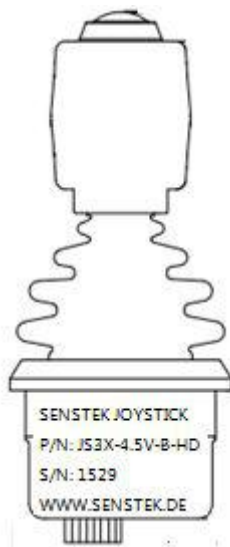


## 5: Electricity ( with 20cm 8 pins cable )



Pin	Description
1	Supply voltage
2	Left/Right (X axis) output
3	0 V
4	Forward/backward (Y axis) output
5	NC
6	1/2 supply voltage output
7	Z axis output
8	Switch ON/OFF

## 6: Label: XXXX - yyww, For example: 1533



## 7: Trade Info

Trade Terms	FOB Suzhou
Payment Terms	T/T, Western Union (30% deposit, balance before shipment)
Delivery Time	3-5 days Sample, 2 weeks Order
Shipping	By air / Express / Designated Agent
Service & Support	12 months warranty.
	Great after-sales service and offer solutions within 24 hours.

## 8: Be Customized As Required



## 9: Application



## 10: Company Info

Suzhou Senstek is a commitment to provide high-quality products of high-tech joint ventures for the sensor chip and sensor system, research and development headquarter is located in Freiburg, Germany, the registered brand SENSTEK. China company is set-up in September 2014 in Zhangjiagang City, Jiangsu Province.

Senstek focus on the Hall integrated sensor strategy, research and development of high performance programmable linear Hall chip, filled the blank of high performance magnetic sensor products in China market. Senstek has 3 returnees from Europe with international first-class level. We have 8 Patents on pressure sensor, hall sensor and Joystick.

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