

# 2-axis contactless joystick JOY-00019

joy-00019 has 2-axis contactless joystick joy-00019 incl. XY axis measurement, 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 9 points. total 18 point calibration by XY 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, product safety and long service life (5 Million operation) are excellent, its mounting flange allows installation on the panel of the upper or lower end.

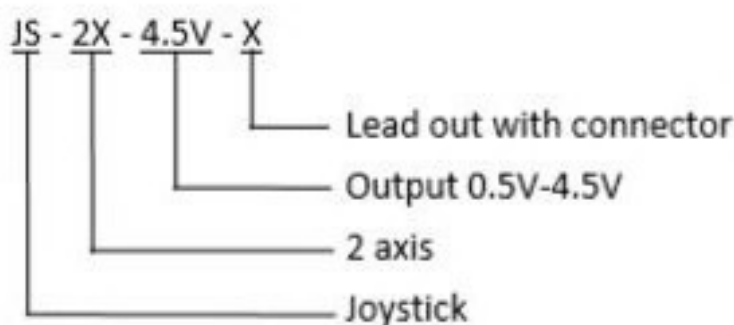
As for the production, fully automatic calibration devices are utilized, 3 minutes for total calibration and verification periods, which can be quick and no production errors.

joy-00019 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:

joy-00019 , 2 axis Joystick, 0.5-4.5V output for X or Y axis, low install flange height is 18mm, short handle.



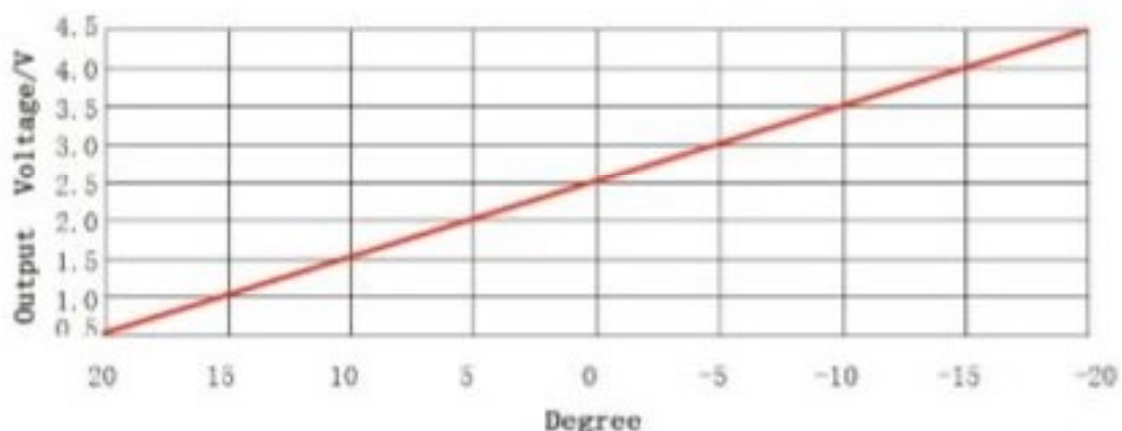
## 2. Parameter

Mechanical	
XY axis	
Lever operating force breakout	3N
Lever operating force full deflection	4.5N
Lever operating force max allowable	250N
Lever action	Self centering
Weight	90g
Handle mechanical angle X axis	$\pm 20^{\circ}$
Handle mechanical angle Y axis	$\pm 20^{\circ}$
Excepted life	5 million operations

Electrical	
Sensor type	Hall effect sensor
Supply voltage	5 ± 0.5V
Max supply voltage	-8.5 ~ 18VDC
Output impedance	55Ω each axis
Center reference output(no load)	2.48-2.52V @ 5V
Current consumption-max	24mA
Output ramp	Linear output of each axis

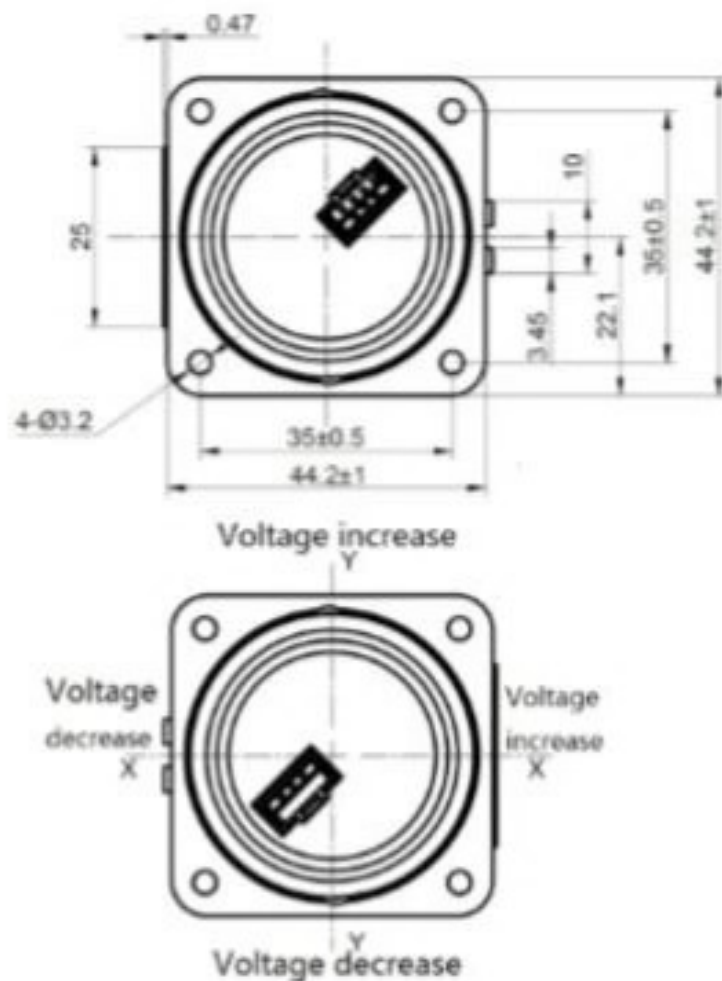
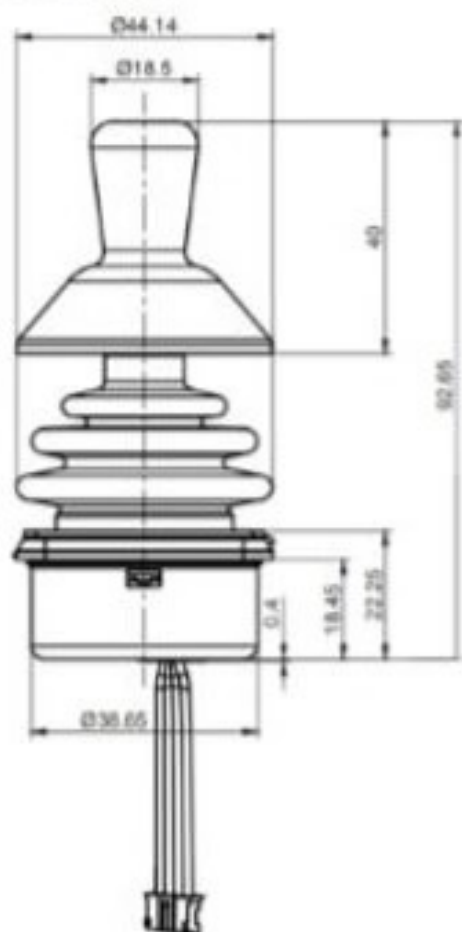
Specification				
Spec (5.0±0.01VDC power supply, 25□), output is linear with power supply				
Item	Min	Typ	Max	Unit
Power supply	4.5	5.0	5.5	Vdc
Power current		21	30	mA
Zero output (0 degree)	2.48	2.5	2.52	Vdc
Forward/Left full span output ( - 20 degree )	0.47	0.5	0.53	Vdc
Reverse/Right full span output ( + 20 degree )	4.48	4.5	4.52	Vdc
Linearity		± 0.3	± 1	%FSS
Response Time			1.0	ms

### 3. Output curve



$$\text{Output voltage(V)} = 2.5\text{V} + \text{Degree}(\text{°}) * 0.1\text{V/°}$$

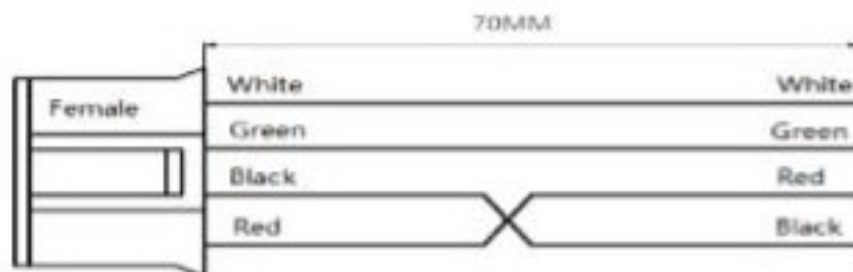
#### 4. Dimension



#### 5. Head installation



#### 6. Wire: ( W8-PH4\*1 )

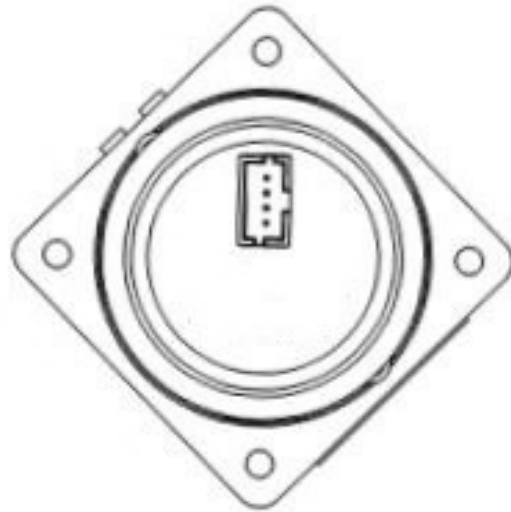


## 7. Electricity



Pin	Description	Wire
1	0V	Black
2	5V	Red
3	X axis output	Green
4	Y axis output	White

8. Label: XXXX - yyww, For example: 1721



## 9. Application

