

JS72 系列电控手柄 JS72 Series of Joystick

➤ 产品介绍 **Product Description**

JS72是一款基于霍尔传感原理的单轴手柄。多功能的底座，搭配多款上端，可以满足大多数的应用要求。

JS72 is a single-axis joystick based on hall-effect sensing. The multifunctional base compatible with various of grips, makes it meet most application requirements.

紧凑的结构允许多个手柄并排放置形成多手柄组合，满足装载机等机型的操控功能。同时，JS72的典型应用还有做为挖机、旋挖钻机等土方机械的副手柄，安装在主操控手柄侧边。

The compact structure allows for paralleled layout as multiple lever assemblies, which meets the control requirement of wheel loaders etc. It has also been typically mounted next to the main joystick controller as an auxiliary joystick for earthmoving machinery such as excavators and rotary drilling rigs etc.

JS72有两个基本款，弹簧复中款带有中位和两端位置反馈；摩擦定位款有中位位置反馈。

JS72 has two basic models, spring return model which has detent on centre and either or both of the ends. And friction hold model has detent on the centre.

JS72下装式的安装方式，使得操控台或扶手箱外观整洁。

JS72 is installed from underneath the panel for a clean appearance of dashboard or armrest.

JS72的输出信号可以是模拟量（电压、电流）、CAN总线、PWM、开关量。

The output signal can be analog(voltage,current),CAN bus,PWM or switching.



➤ 产品特点 **Product Features**

- 结构紧凑、重量轻；

Compact and lightweight design

- 弹簧复中和摩擦定位可选。弹簧复中有中位和两端位置反馈；摩擦定位有中位位置反馈

Spring return and friction hold models optional.Spring return model has detent on the center and two end positions,Friction hold model has detent on the center

- 搭配多款上端

Compatible with various of grips

- 电子部分密封等级IP67

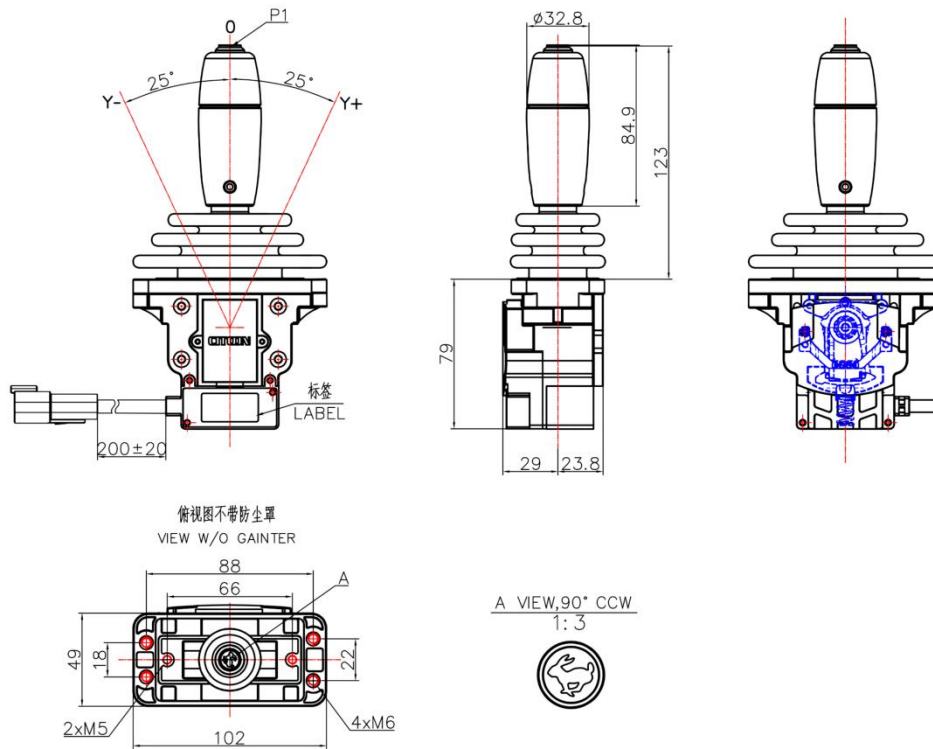
➤ 主要技术参数 Technical Specifications

机械性能 Mechanical specifications		
旋转角度	Mechanical operating angle	Y axis: $\pm 25^\circ$
操作力	Operating force	1.25Nm or 1.85Nm (full deflection) 弹簧复中, 400 万次
使用寿命	Life expectancy	4 million cycles for spring rerun version 摩擦定位款, 200 万次
重量	Weight	2 million cycles for friction version 520g
电气性能 Electrical specifications		
传感类型	Sensor type	Hall-effect 霍尔
供电电压	Applied voltage	$5 \pm 10\%$ Vdc or 9-32 VDC
输出信号	Effective output	Analog, PWM, CAN
解析率	Resolution	12 bit (0.025% of measurement range)
精度	Accuracy	Max 2.0% FS
环境测试 Environmental specifications		
工作温度	Operating temp. range	$-40^\circ\text{C} \sim 85^\circ\text{C}$
储存温度	Storage temp. range	$-40^\circ\text{C} \sim 85^\circ\text{C}$
防护等级	Ingress Protection (IP) rating	安装法兰面以上 IP65 电路部分 IP67 electronics IP67
EMC	EMC	100V/m
ESD	ESD	$\pm 8\text{kV}$ (contact discharge) $\pm 15\text{kV}$ (air discharge)

➤ 外形&安装尺寸 Mechanical Dimensions(mm)

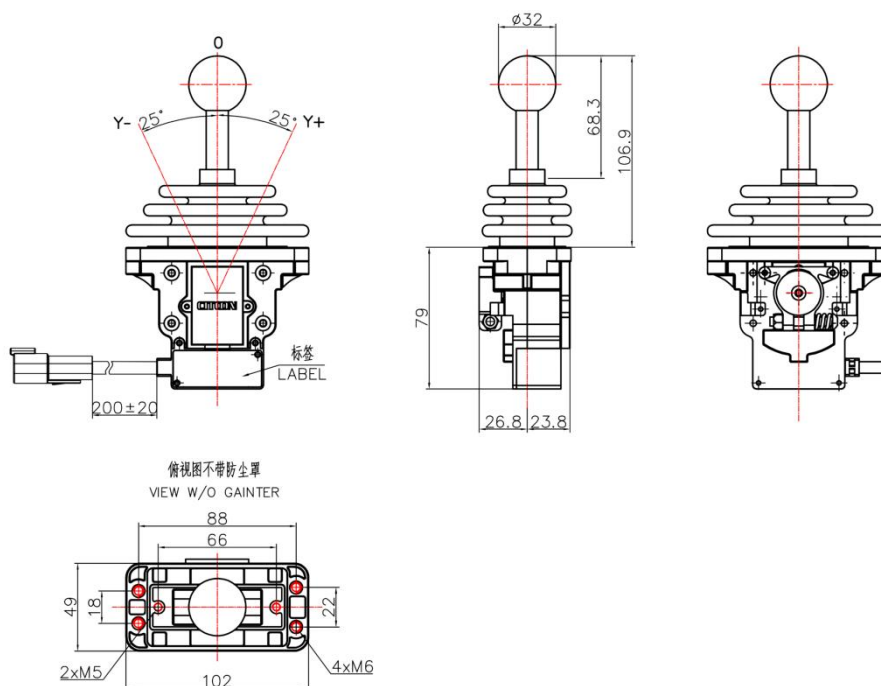
弹簧复中底座+G102 上端

JS72 Spring Return Model with G102 Grip



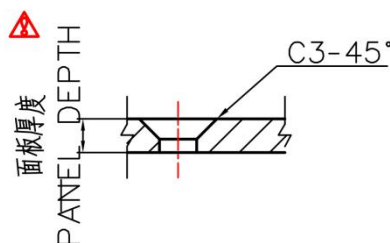
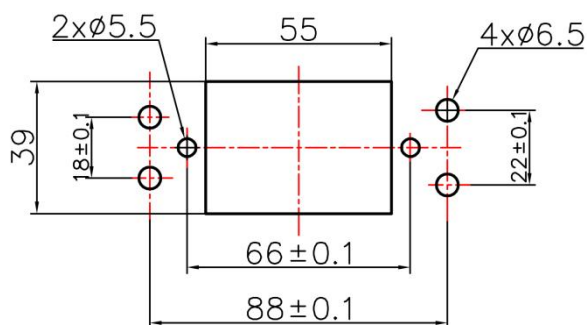
摩擦定位款+G202 上端

JS72 Friction Model with G202 Grip



面板开孔尺寸

Panel Cutout



使用随带沉头螺丝安装

Fasten with supplied countersunk screws

➤ 编号规则 Product Code Reference

JS72	S2	LV	5
底座系列 Base Family Name	功能 Functions	供电电压 Supply Voltage	信号输出 Output
JS72	S1- spring return with detent on Y+ side 弹簧复中,Y+位置反馈	LV- 5±10% V dc	01- 0.25~4.75V dc
	S2- spring return with detent on both Y- and Y+ sides 弹簧复中, Y+,Y-位置反馈	HV- 12/24V dc	02- 4.75~0.25V dc
	F0- friction 摩擦定位		03- 0.5~4.5V dc
			04- 4.5~0.5V dc
			16- 1-5V
			17- 3-5V
			18- 1-9V
			19- 0.1-10V
			31- 0.25~4.75V dc,0.25~4.75V dc
			32- 4.75~0.25V dc,4.75~0.25V dc
			33- 0.5~4.5V dc,0.5~4.5V dc
			34- 4.5~0.5V dc,4.5~0.5V dc
			46- 0.25~4.75V dc,4.75~0.25V dc
			47- 4.75~0.25V dc,0.25~4.75V dc
			48- 0.5~4.5V dc,4.5~0.5V dc
			49- 4.5~0.5V dc,0.5~4.5V dc
			61- PWM 5~95%,500HZ
			62- PWM 95~5%,500HZ
			63- PWM 10~90%,500HZ
			64- PWM 90~10%,500HZ

71- 4-20 mA
81- CAN J1939
82- CAN open

-	G102P1	-	00
	上端系列		其它订制信息
	Grip Type		Other Customized Details
	G102		Cable length,connectors etc 线缆长度、连接器等
	G202		

➤ 应用Applications

应用于挖机、装载机、铣刨机、高空车等机型。
Applied to excavators, wheel loaders, milling machines, and aerial work vehicles.

