

**JS25 系列电控手柄  
JS25 Series of Joystick****➤ 产品介绍 Product Description**

JS25是一款MINI系列的手柄，结构紧凑但功能强大。  
JS25 is one of our MINI series of joysticks, compact size with powerful functions.

十字运动的球头和轴整体加工成型，杜绝了潜在的轴系旷量甚至松动的风险。

The cross-moving 'ball head' and are machined with the shaft integrally which eliminates the potential risk of shafting set clearance or even looseness.

非接触式霍尔原理传感器的应用，使产品具有超长的使用寿命。PCBA完全灌封，手柄整体真正做到百分百IP67防护等级。

With Hall-effect, non-contact sensor equipped, the unit has ultra-long operation life. With PCBA potted entirely, JS25 can be ensured 100 percent IP67 protection level.

JS25适配多款上端。同时，灵活的加工工艺使得即使很小的用量也可以定制自己的尺寸上端。

JS25 is suited with plenty of grips, and also thanks to our flexible processing technology, grips even with a relatively small production batch can also be custom-made.

按钮开关采用国际品牌产品，使用寿命为100万次以上；按钮开关防护等级IP67以上。

Push-button switches are from international well-know brands with a service life of more than 1 million times and a protection level of above IP67.

霍尔原理的翘板开关可以理解为一款翘板式角度传感器，无接触原理保证了产品的高可靠性和寿命。

The rocker switch is actually an hall-effect angle sensor with rocker style seesaw motion.

Non-contact theory ensures high reliability and product life.

**产品特点 Product Features**

- 标配冗余设计的双输出角度传感器  
Angle sensor with redundant design--dual output as standard
- 轴向操作引导感  
Axis guide feeling
- 单轴、双轴可选；  
Single-axis or double-axis optional.
- 中位弹簧复位；  
Spring return to the neutral position.

## ➤ 主要技术参数 Technical Specifications

### 机械性能 Mechanical specifications

旋转角度	Mechanical operating angle	X / Y axis: $\pm 14^\circ, \pm 20^\circ$
操作力	Operating force	3~12N
使用寿命	Life expectancy	
手柄底座机械部分	Joystick base mechanics	2 million cycles 200 万次
按键开关	Push button switch	1 million cycles 100 万次
翘板开关	Rocker switch	
重量	Weight	260g

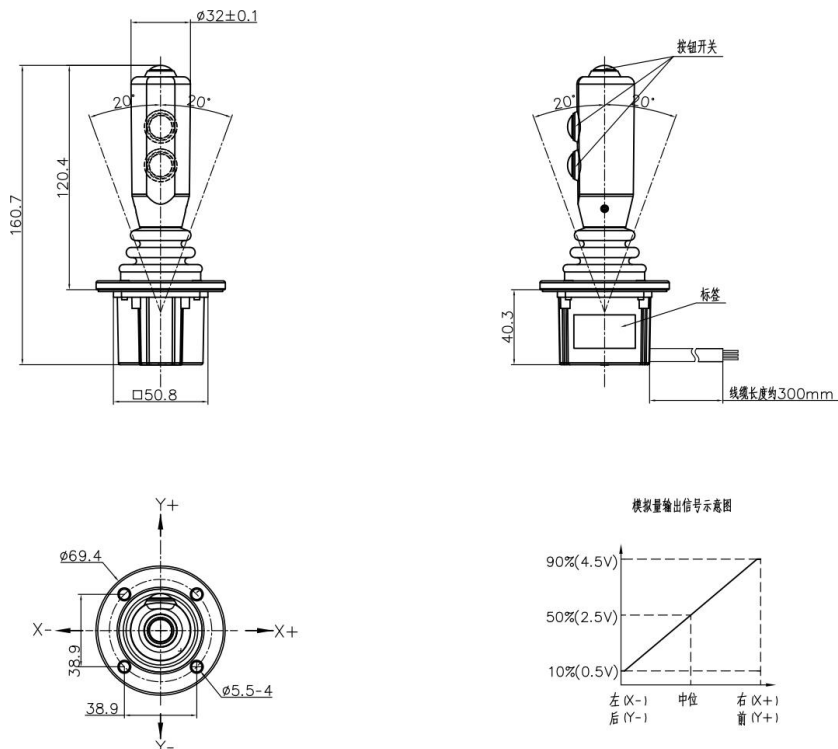
### 电气性能 Electrical specifications

传感类型	Sensor type	Hall-effect 霍尔
供电电压	Applied voltage	$5 \pm 10\%$ Vdc
输出信号	Effective output	Typical 0.5-4.5V ratiometric. 4-20mA, CAN open, CAN J1939 optional

### 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	$-40^\circ\text{C} \sim 85^\circ\text{C}$
EMC	EMC	100V/m
ESD	ESD	$\pm 8\text{kV}$ (contact discharge) $\pm 15\text{kV}$ (air discharge)
防护等级	Ingress Protection (IP) rating	IP 66


## ➤ 外形&安装尺寸 Mechanical Dimensions(mm)





➤ **匹配上端 Mating Standard Grips**



➤ **配件规格参数 Accessories specifications**

名称 Name	图片 PIC	指标 Index	数据 Data	零件号 Part number
Push Button Switch 按钮开关		Work principle 工作原理	干簧管 reed switch	PBS-03- BK(black), RD(red), YL(yellow), GR(green), BL(blue), WH(white), OR(orange)
		Housing 外壳尺寸	M12x1 with locking nut $\varnothing$ 12 with snap-on	
		Action 动作	Momentary 复位	
		Total travel 行程	2.5 mm	
		Type 类型	SPST, NO	
		Switching voltage 分合电压	max. 48 V	
		Switching current 分合电流	max. 0.5 A	
		Mechanical life 机械寿命	1 million cycles 100 万次	
		Operating force 操作力	2~6N	
		Ingres protection 防护等级	IP67	
Operating temperature 工作 温度	-40~85°C			

名称 Name	图片 PIC	指标 Index	数据 Data	零件号 Part number
Push Button Switch 按钮 开关		Type 类型	SPST-NO-DB	PBS-21- BK(black), RD(red), YL(yellow), GR(green), BL(blue), WH(white), OR(orange)
		Work principle 工作原理	Contacts,silver 触点,银	
		Action 动作	Momentary 复位	
		Total travel 行程	2.3mm nominal	
		Operating force 操作力	3N nominal	
		Current rating 电气规格	2A,24VDC	
		Mechanical life 机械寿命	1 million cycles100 万次	
		Electrical life 电气寿命	40k cycles4 万次	
		Ingres protection 防护等级	IP67	
		Operating temperature 工作 温度	-40~85°C	

名称 Name	图片 PIC	指标 Index	数据 Data	零件号 Part number
Push Button Switch 按钮 开关		Type 类型	SPDT-DB	PBS-22- BK(black), RD(red), YL(yellow), GR(green), BL(blue), WH(white), OR(orange)
		Work principle 工作原理	Contacts,silver 触点,银	
		Action 动作	Momentary 复位	
		Total travel 行程	1.524mm nominal	
		Operating force 操作力	5.15N nominal	
		Current rating 电气规格	2A,24VDC	
		Mechanical life 机械寿命	1 million cycles100 万次	
		Electrical life 电气寿命	5A@28VDC,25k cycles2.5 万 次	
		Ingres protection 防护等级	IP67	
		Operating temperature 工 作温度	-40~85°C	

名称 Name	图片 PIC	指标 Index	数据 Data	零件号 Part number
Rocker Switch 翘板开关		Work principle 工作原理	HALL effect 霍尔	RCS-04
		Axis 轴	single axis 单轴	
		Action 动作	Spring return to neutral 中位弹簧复位	
		Operating force 操作力	2-3N	
		Working angle 工作角度	±15°	
		Operation Voltage 工作电压	5±10% Vdc	
		Output 输出	0.5-4.5V ratiometric 比例电压	
		Independent linearity tolerance 线性度	±3%	
		Operating temp.工作温度	-40~85°C	
		Mechanical life 机械寿命	1 million cycles	
Ingres protection 防护等级	Electronics IP68 电路部分			

➤ **编号规则Product Code Reference**

JS25	XY	1	0
底座系列	轴向	轴向约束	操作力
Base Family Name	Axis Options	Axial restraint	Operation Force
	XY- Bi-direct.: X and Y axis	0- Squared 方形限位	0- Standard spring force
	NY- Uni-direct.: Only Y axis	1- Cross-shaped 十字限位	1- Heavy spring force
	XN- Uni-direct.: Only X axis	2- Slot 一字限位	2- Ultra high spring force
		3- Z-shaped Z 形限位	
		4- T-shaped T 形限位	
		5- H-shaped H 形限位	

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信号输出形式	信号输出		上端系列		其它订制信息
Electronics Type	Output		Grip Type		Other Customized Details
A- analogue	1- 4-20 mA,dual				
C- CAN Bus	5- 0.5-4.5VDC ratiometric,single				
	6- 0.5-4.5VDC ratiometric,dual				
	J- CAN J1939				
	O- CAN open				

➤ **应用Applications**

适用于凿岩台车、钻机等各类工程机械。

It is suited for various of equipments such as tunneling jumbos, drilling rigs etc.

