

JS04 系列电控手柄**JS04 Series of Joystick****➤ 产品介绍 Product Description**

JS04是一款沿用液压先导阀主体结构,同时巧妙的在双轴方向兼容霍尔传感器,在铝合金底座下方增加灌封的主电路,从而输出模拟量、PWM、以及CAN总线信号的电控手柄。

JS04 is an electronic joystick which inherits the main structure of hydraulic joystick and is cleverly compatible with Hall effect sensors in the dual axes and poured main circuit board under the aluminum alloy base, therefor provides analog, PWM, and CAN bus outputs.

JS04实现了在保留液压操纵手感的同时,满足整机控制的电控化和数字化升级需求。

JS04 meets the electrification and digitization upgrade requirement of the equipment control while retaining the hydraulic control feel.

结构精巧和强悍,机械中位精度为 0.5° ,使用寿命高达1000万次。

Ingenious and robust structure, with a mechanical Neutral accuracy of 0.5° , and a service life of up to 10 million times.

标配双路冗余信号输出。

Standard dual redundant signal output.

电路基于CITOON技术平台,具备反接和过电压保护,优良的EMC性能。

The circuit is based on the CITOON technology platform, with reverse polarity and over-voltage protection, and excellent EMC performance.

电路部分完全灌封,达到IP67防护等级。

The circuit is completely poured which achieves IP67 protection level.



布线合理,几乎没有断线的可能。

The wiring is reasonable and there is almost no possibility of disconnection.

以上特点使得JS04成为频繁操作且工况恶劣的挖机等机型的理想操控方案。

The above characteristics make JS04 an ideal solution for excavators and other mobile equipment needs frequent operation and works in harsh environment.

➤ 主要技术参数 Technical Specifications**机械性能 Mechanical specifications**

旋转角度	Deflection angle	Axis 1, 3: $\pm 23^\circ$; Axis 2,4: $\pm 18^\circ$
(机械)中位精度:	Neutral mechanical accuracy	0.5°
操作力矩	Operating torque	0.7-1.7Nm
使用寿命	Life expectancy	10 million cycles1000 万次
重量	Weight	1.1kg

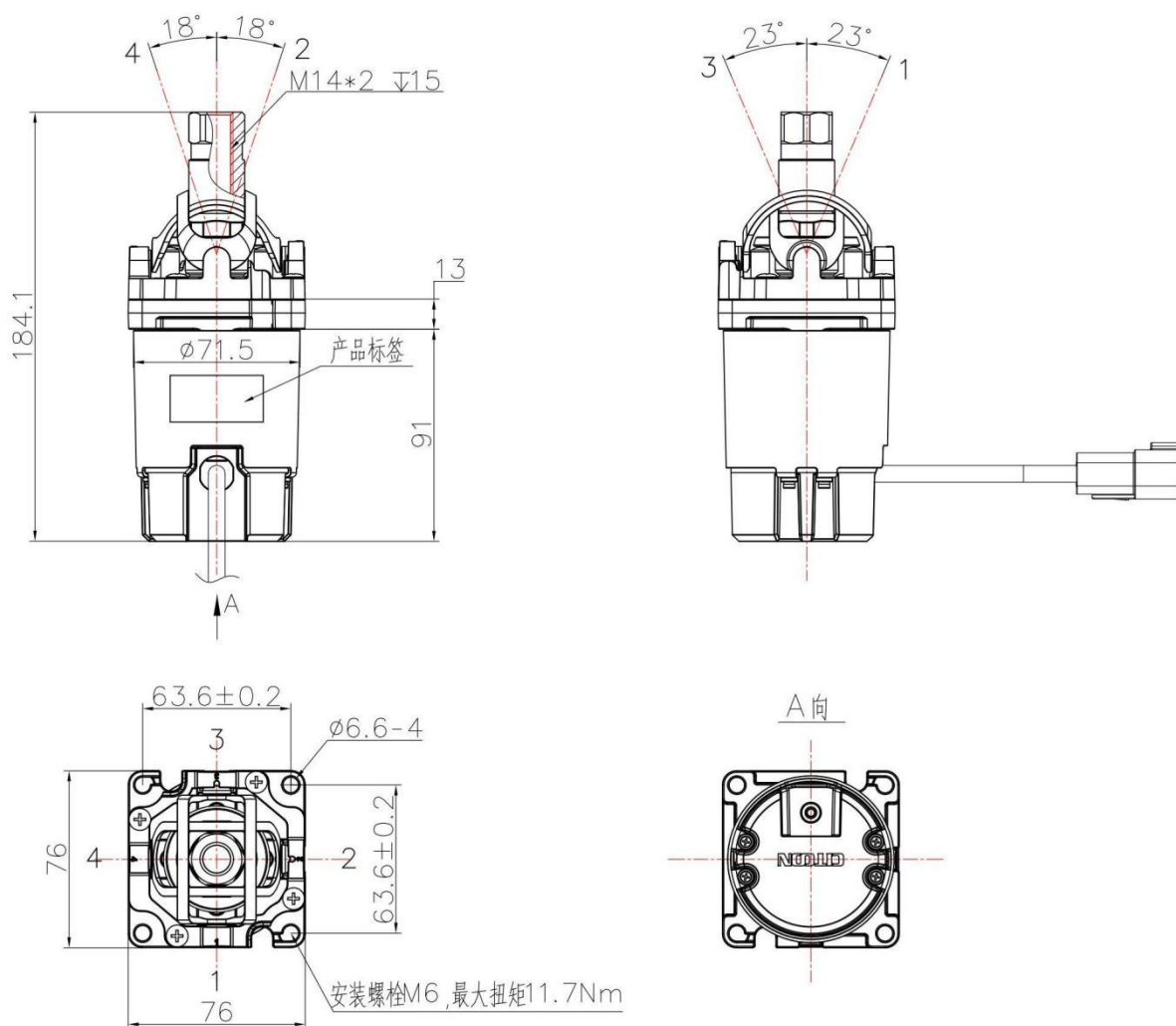
电气性能 Electrical specifications

传感类型	Sensor type	Hall-effect 霍尔
供电电压	Applied voltage	10-32 Vdc; $5\pm 10\%$ Vdc
输出信号	Effective output	Analog,PWM,CAN
解析率	Resolution	12 bit
精度	Accuracy	Max 2.0% FS
输出迟滞	delay time of output signal	approx. 3ms
过压保护	Over-voltage proof	yes
电源反接保护	Reverse polarity protection	yes

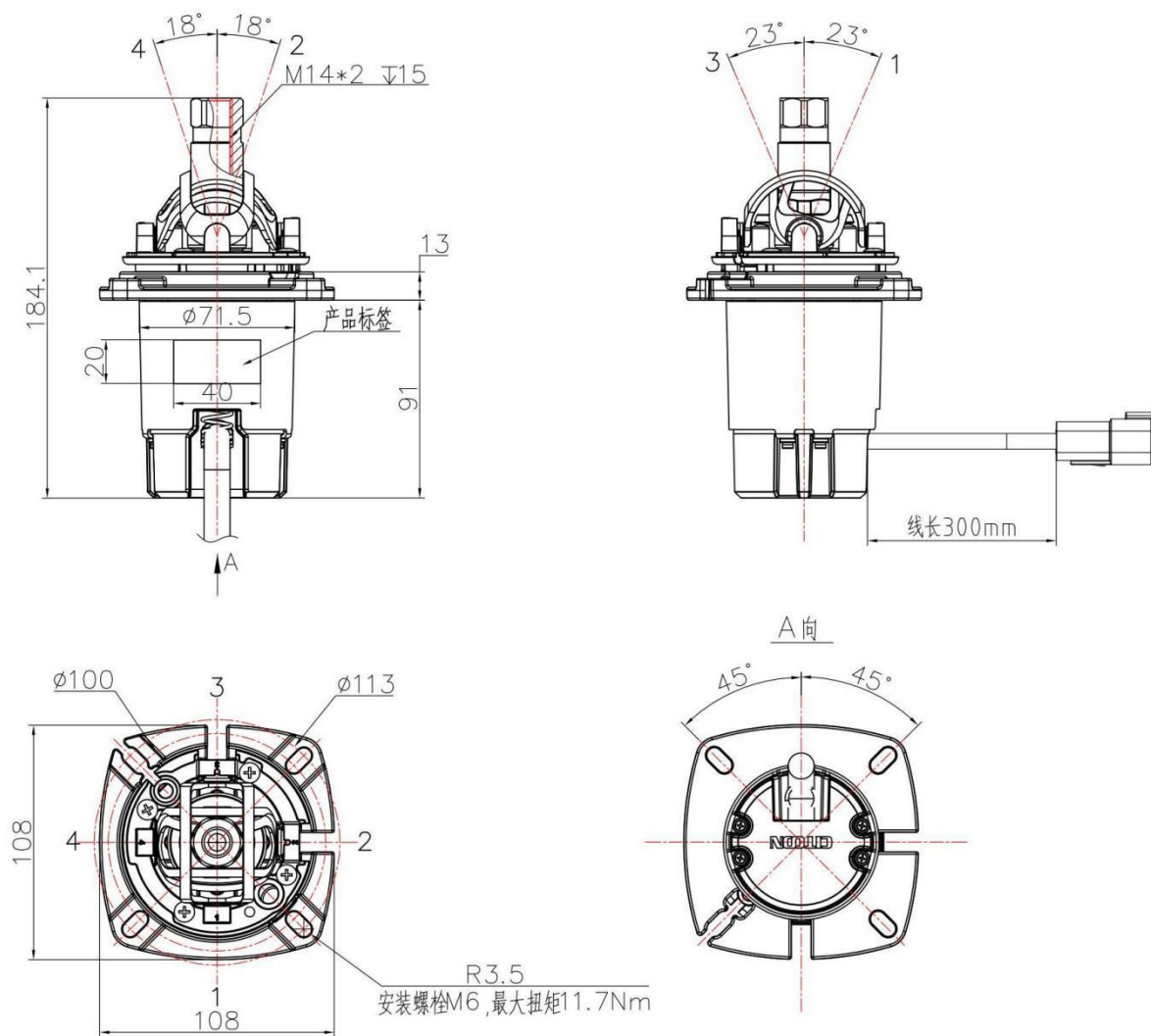
环境特性 Environmental specifications

工作温度	Operating temp. range	-40°C~85°C
储存温度	Storage temp. range	-40°C~85°C
防护等级	IP Class	IP67
振动测试	Vibration	20g
机械冲击	Mechanical Shock	50g
电磁兼容性	EMI	100V/m
静电	ESD	$\pm 8\text{kV}$ (contact discharge) $\pm 15\text{kV}$ (air discharge)

➤ 外形&安装尺寸 Mechanical Dimensions(mm)



A 型法兰 Flange Model A



B 型法兰 Flange Model B

➤ **编号规则Product Code Reference**

JS04	B	2	CJ
底座系列	法兰形式	防尘套压板形式	信号输出
Base Family Name	Electronics Type	Bellow Press Plate Type	Output
JS04- standard version	A- model A B- model B	1- model 1 2- model 2 3- model 3 4- model 4	4- 0.5-4.5V ratiometric,Dual 5- PWM single 6- PWM double CJ- CAN J1939 CO- CAN open
-	G015	L/R	- 40
上端系列	左右手或单手	其它订制信息,如线束、连接器、协议版本等 Other customized details such as wiring,connectors,protocol versions etc	
Grip Type	Left or Right hand or Unidirectional		
G015	L- Left hand grip		
G016	R- Right hand grip		
G017	Blank- Unidirectional		

➤ **产品应用Applications**

适用于挖机等各类工程机械。

It is suited for various of equipment such as excavators etc.

