

H700A 系列霍尔操纵杆
H700A Series hall joystick



H700A 系列霍尔操纵杆, 1 轴、2 轴或 3 轴, 面板安装及嵌入式, 采用不锈钢及合金材料, 弹簧自动回位结构, 德国高精度霍尔式传感器, 全温度范围线性校正, IP67 以上防护等级, 较平滑的操作手感, 人体工学机械设计。

适用于机器人、无人机、医疗设备、航天、船舶、广播电视设备等。

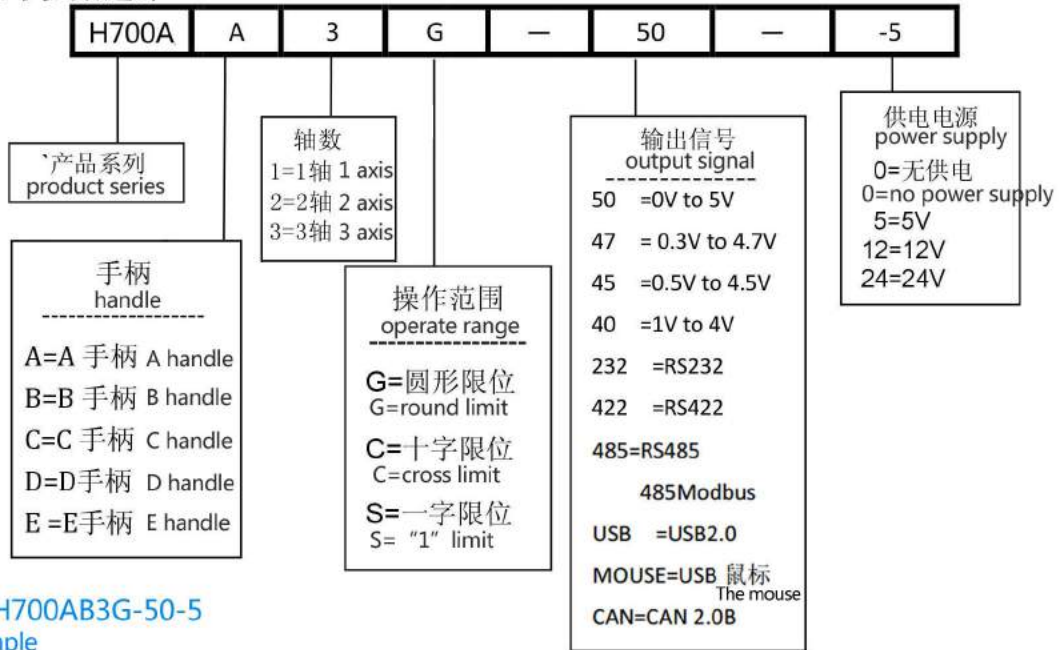
H700A Series hall joystick , 1 axis, 2 axis or 3 axis, embedded panel mounting, stainless steel and alloy materials, spring automatic return structure, German high precision hall sensor, full temperature range linear correction , protection grade above IP67, smooth operation handle, ergonomic design.

It is suitable for robots, unmanned aerial vehicles, medical equipment, aerospace, ships, radio and television equipment, etc..

一、产品特点: product features:

材 料: 不锈钢+合金+工程塑料	Material: stainless steel +alloy +engineering plastic
传 感 器: 霍尔传感器	Plastic sensor: hall sensor
定 位: 弹簧自动回位	Positioning: spring automatic return
操作角度: XY 轴: ± 20 度 ; Z 轴: ± 17 度	Operation angle: XY axis: ± 20 degrees; Z axis: ± 17 egrees
操作范围: 全方位(圆形)、十字、一字;	Operating range: full range (round), and cross range; signal range
信号输出: 模拟电压、RS485、RS422、RS232、USB、CAN	Output: analog voltage, RS485, RS422, RS232, USB CAN
供 电: DC5V、DC12-28V;	Power supply: DC5V, DC12-28V,;
功 耗: 小于 9-25MA (5V 供电、与信号输出及轴数有关)	power consumption: less than 9-25MA (5V power supply, related with signal output and the shaft number of operations)
操作寿命: 大于 1000 万次;	Life: over 10 million times
温 度: -40 度~+70 度	Temperature: -40 degrees ~+70
防护等级: IP67 面板以上部分	Protection grade: IP67 panel above part
底座尺寸: 44.4X44.4	Base size: 44.4X44.4
按装尺寸: 35X35	Installation size: 35X35

产品型号参数选择



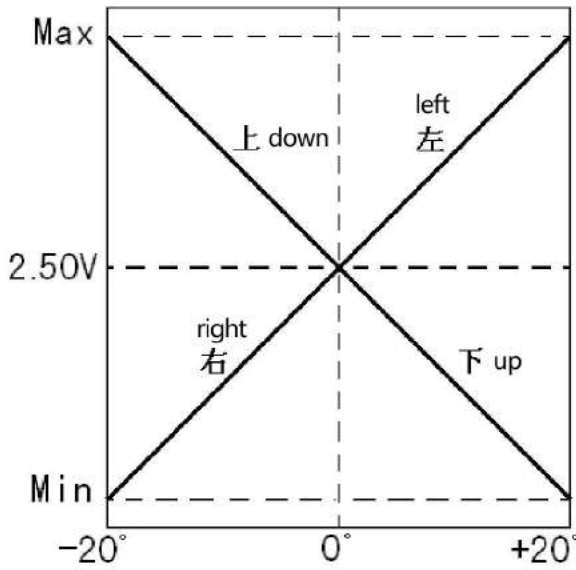
例如：H700AB3G-50-5
for example

- CAN 通信通信，波特率、支持标准帧/扩展帧/远程帧、协议可定制
CAN communication, baud rate,support standard frame / extended frame / remote frame, protocol can be customized
- 弹簧力度：多种，请与工厂联系 Spring force: variety, please contact the factory
- Z 轴是手柄旋转，可以顺时针或逆时针转动±17°，弹簧自动复位；
Z axis is the handle rotation, can clockwise or counterclockwise rotation ± 17°, the spring automatically reset

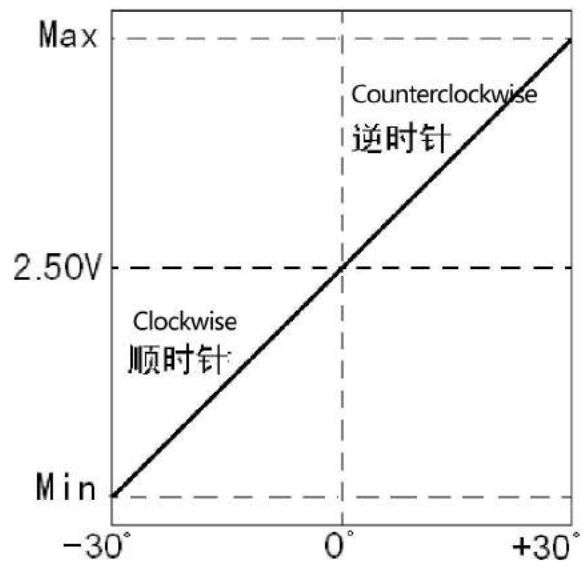
手柄选择 Handle selection

				
<p>A 手柄 A handle</p> <p>无按钮 no button</p> <p>轴数：1、2、3 axis number:1.2.3</p>	<p>B 手柄 B handle</p> <p>1 按钮 1 button</p> <p>轴数：1、2、3 axis number:1.2.3</p>	<p>C 手柄 C handle</p> <p>无按钮 no button</p> <p>轴数：1、2、3 axis number :1.2.3</p> <p>手柄可伸缩 handle can shrink</p> <p>伸缩高度：10mm shrink height: 10mm</p> <p>用于便携设备 for portable devices</p>	<p>D 手柄 D handle</p> <p>1 按钮 1 button</p> <p>轴数：1、2、3 axis number:1.2.3</p>	<p>E 手柄 E handle</p> <p>无按钮 no button</p> <p>轴数：2、3 axis number :2.3</p> <p>用于便携设备 for portable devices</p> <p>杯形装饰盖 +方形装饰盖 cup-shaped decorative cover +square decorative cover</p>
<p>G=圆形限位 G=round limit</p> 		<p>C=十字限位 C=cross limit</p> 		<p>S=一字限位 S="1" limit</p> 

模拟电压信号输出： Analog voltage signal output:



XY 轴模拟电压信号输出图形
XY axis analog voltage signal output graph



Z 轴模拟电压信号输出图形
Z axis analog voltage signal output graph

按钮开关原理图：

Button switch schematic:



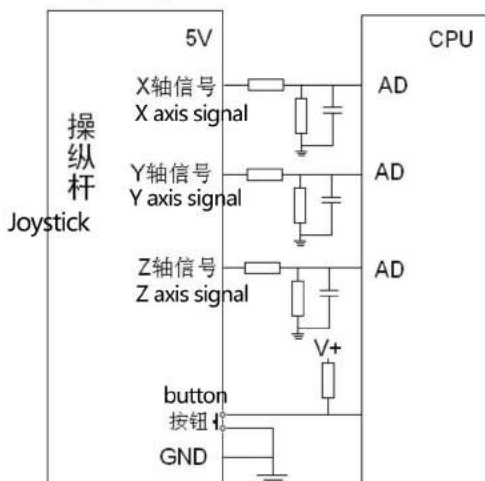
按钮开关技术参数： Button switch Technical parameters:

- ◆ 开关方式：常开
- ◆ 触点电流：B 手柄 1A/24V；D 手柄 0.5A/24V
- ◆ 防护等级：B 手柄 IP67； D 手柄 IP54
- ◆ 操作寿命：大于 100 万次
- ◆ Switch mode: normally open
- ◆ Contact current: B handle 1A / 24V; D handle 0.5A / 24V
- ◆ Protection class : B handle IP67; D handle IP54
- ◆ Operating life: more than 1 million times

电气参数： Electrical parameters:

最低工作电压：3.1V（5V 供电时）、8V（12-24V 供电时）
Minimum operating voltage: 3.1V (5V power supply), 8V (12-24V power supply)
最高输入电压：5.5V（5V 供电时）、28V（12-24V 供电时）
Maximum input voltage: 5.5V (5V power supply), 28V (12-24V power supply)
工作电流：小于 25mA（5V 供电, 模拟电压信号输出时）
Working current: less than 25mA (5V power supply, analog voltage signal output)
模拟电压信号输出负载：大于 1KΩ Analog voltage signal output load: more than 1KΩ
模拟电压信号输出中心电压：2.50V 或 50%Vdd Analog voltage signal output center voltage: 2.50V or 50% Vdd
模拟电压输出信号：0V~5V / 0.3V ~4.7V / 0.5V ~ 4.5V / 1V~ 4V
Analog voltage output signal: 0V ~ 5V / 0.3V ~ 4.7V / 0.5V ~ 4.5V / 1V ~ 4V

接线图 Wiring diagram



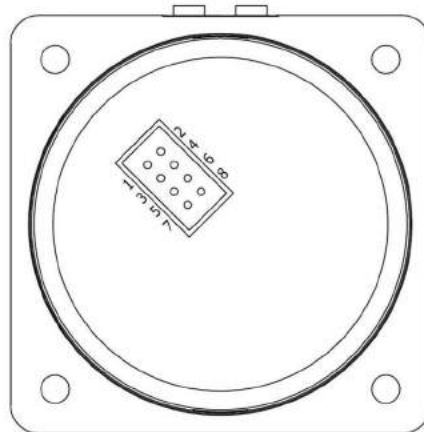
如果 CPU 的电压为 3.3V If the CPU voltage is 3.3V
那么分压电阻值 1.5K 和 3K the partial pressure resistance 1.5K and 3K
电容=1NF capacitance = 1NF

如果 CPU 的电压是 5V If the CPU voltage is 5V
取消分压电阻 Cancel partial pressure resistor
直接连接到 CPU 引脚 Connect directly to the CPU pins
电容可有也可无； Capacitors can be or not ;

按钮的上接电阻 10K The button on the resistance 10K

操纵杆端子图:

Joystick terminal diagram:



引线: lead:

引线长度: 20cm (含端子)

端子型号: PHD2.0-8P

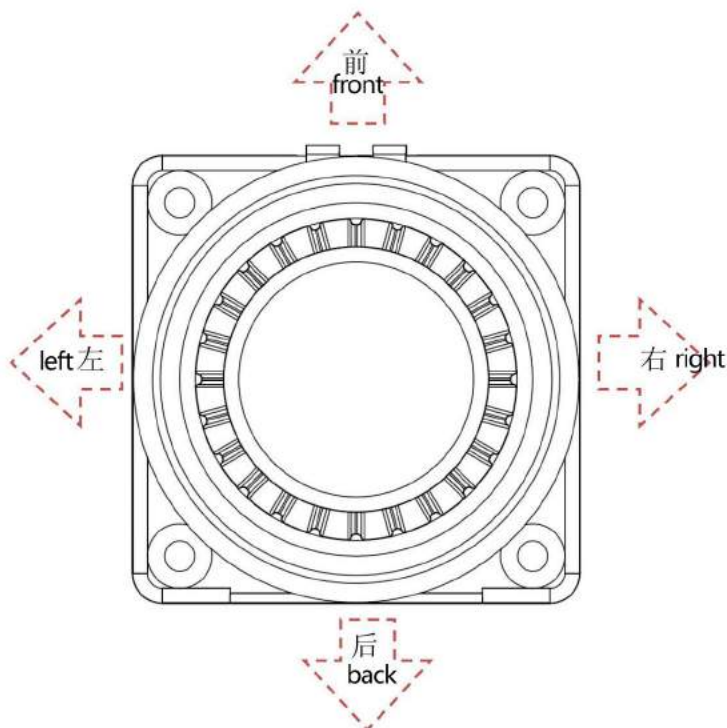
Lead length: 20cm (with terminal)

Terminal Model: PHD2.0-8P

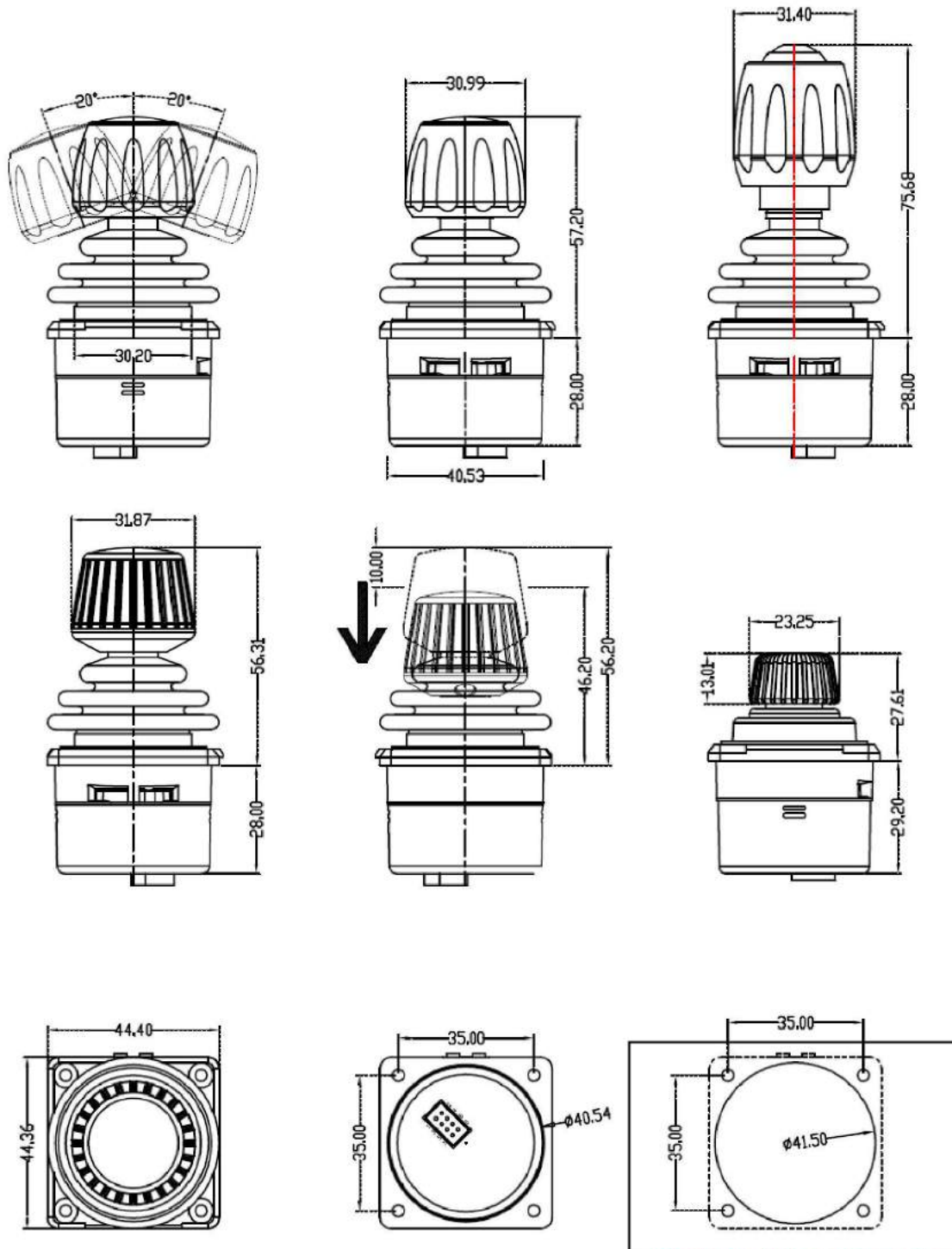
连接器引脚定义-模拟电压信号输出:

Connector pin definition --Analog voltage signal output:

引脚 Pin	符号 Symbol	颜色 Color	功能说明 Function Description
1	V+	红色 red	电源+ power +
2	Y	绿色 green	Y 轴信号输出 Y axis signal output
3	GND	黑色 black	GND 电源- GND Power -
4	X	黄色 yellow	X 轴信号输出 axis signal output
5	B	白色 white	按钮 (按钮有 2 脚, 第 1 脚) button(button has 2 feet, 1 feet)
6	Cen	棕色 brown	中心电位信号 (可不用) Center potential signal (can no use)
7	Z	蓝色 blue	Z 轴信号输出 axis signal output
8	B	白色 white	按钮 (按钮有 2 脚, 第 2 脚) button(button has 2 feet, 2 feet)

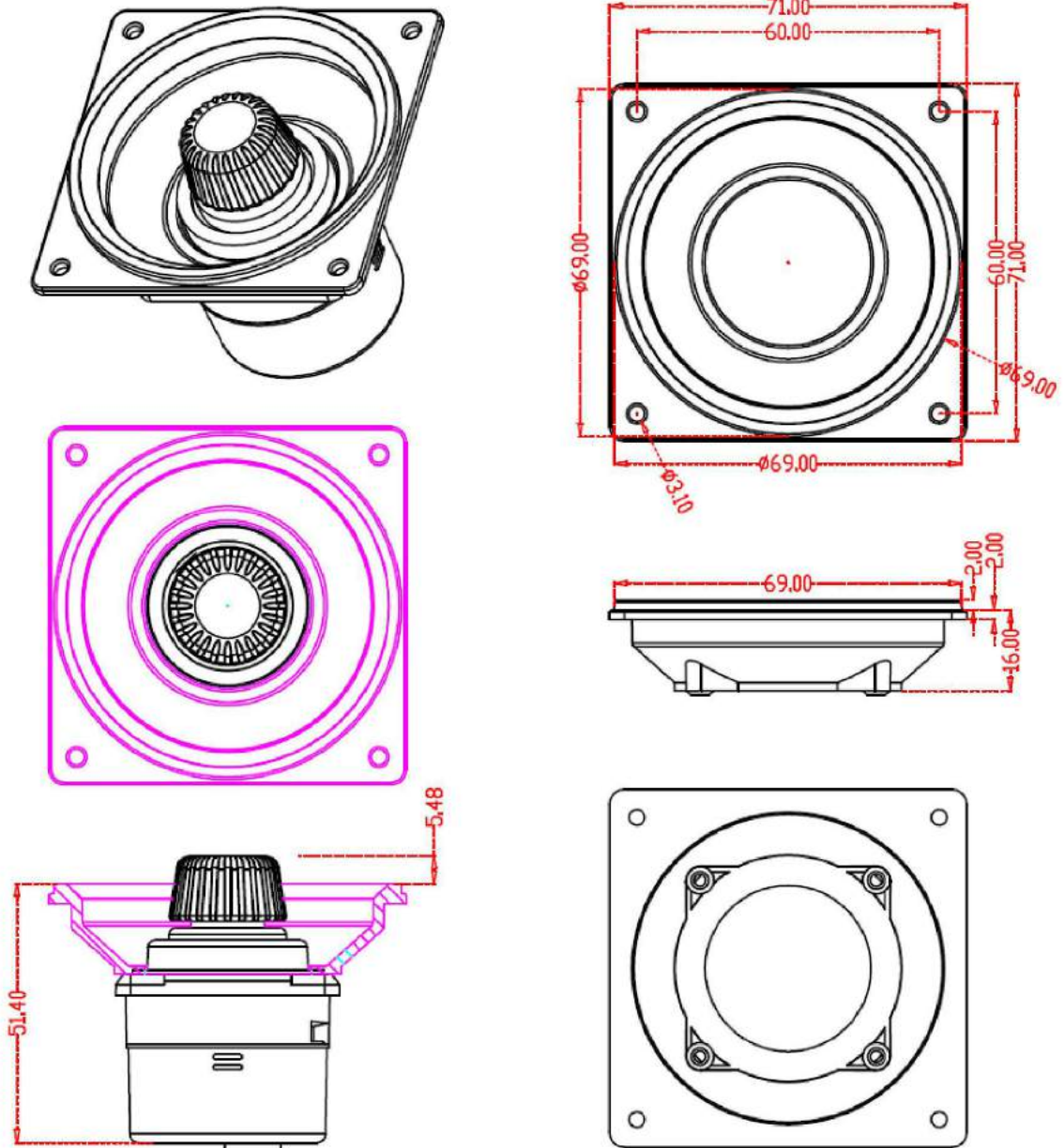


外形尺寸图: Dimensions:



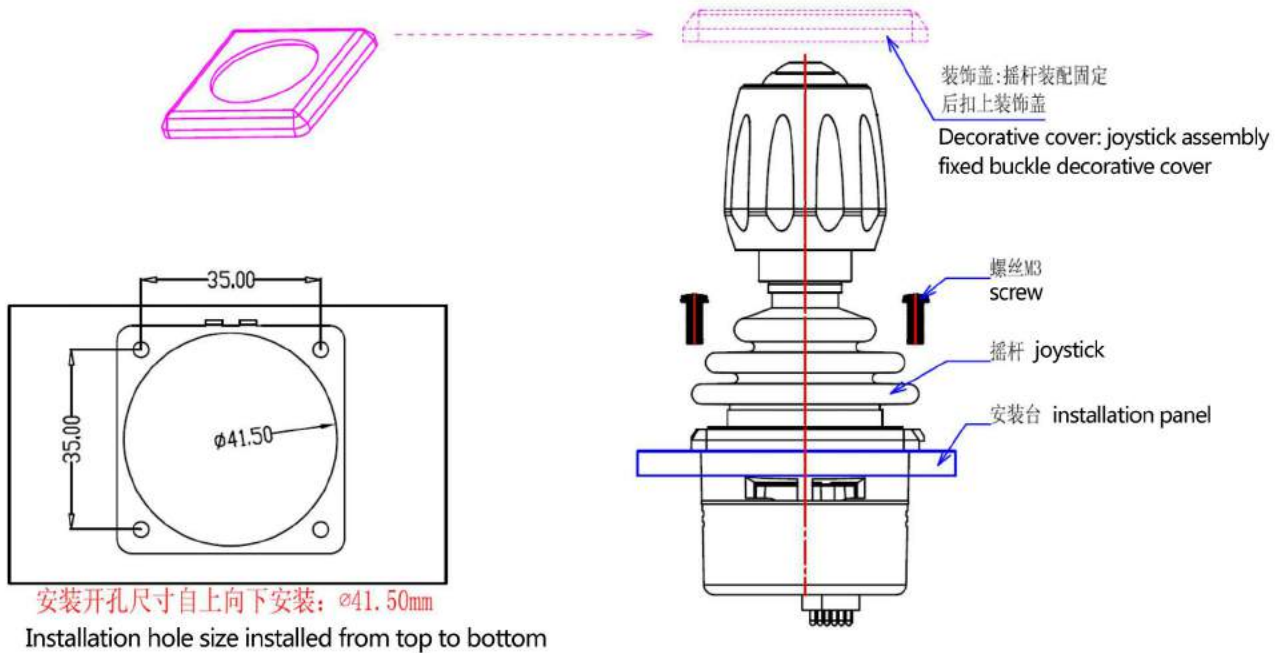
安装开孔尺寸自上向下安装: $\phi 41.50\text{mm}$

Installation hole size installed from top to bottom



安装方式:

Installation :



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