

HJ30 SERIES MULTI-AXIS HAND OPERATED JOYSTICK

HJ30系列
握杆型多轴操作手柄

产品特点 Product Features

- Spring return, single-axis or dual-axis operated.
- Cross direction or arbitrary direction operated optional.
- Potentiometer or hall effect angle detection, long life.
- Large current microswitch optional (10A@30Vdc).
- Various output option.
- Various handle optional.



应用范围 Application

Typical application on rotary drilling rigs, aerial fire trucks, Cranes shield machine and other electrical and electro-hydraulic control system.

技术参数 Technical Information

Electrical data

Potentiometer

Power supply	<36Vdc
Resistance	5K Ω , 10K Ω (\pm 20%)
Center angle	\pm 3 $^{\circ}$
Power dissipation	0.2W

Hall

Power supply	5 \pm 0.5Vdc
Supply current	<11mA (Single axis), <22mA (Dual-axis)
Maximum allowable overload voltage	20Vdc
Reverse maximum allowable voltage	-10Vdc
Output linearity tolerance	\pm 0.2V

With electronic amplifier

Power supply	18 ~ 36Vdc (U21 ~ U24) 9 ~ 36Vdc (I21 ~ I22)
Current consumption	<20mA
Output current (max)	10mA With standard voltage output

Microswitch

Load capacity	10A@30Vdc (Resistance load)
Expecting life	>30 million cycles (Mechanical) >200 thousand cycles (Electrical)
Insulation resistance	>100M Ω 500Vdc Insulating-resistance meter
Breakout angle	\pm 3 $^{\circ}$ ~ \pm 5 $^{\circ}$

Mechanical features

Travel angle	\pm 25 $^{\circ}$
Operating type	Spring return
Breakout force	5N
Operating force(max)	30N
Maximum allowable force	>300N
Expecting life	>2million cycles (Potentiometer) >5 million cycles (Hall)
Weight	460g (Without handle)

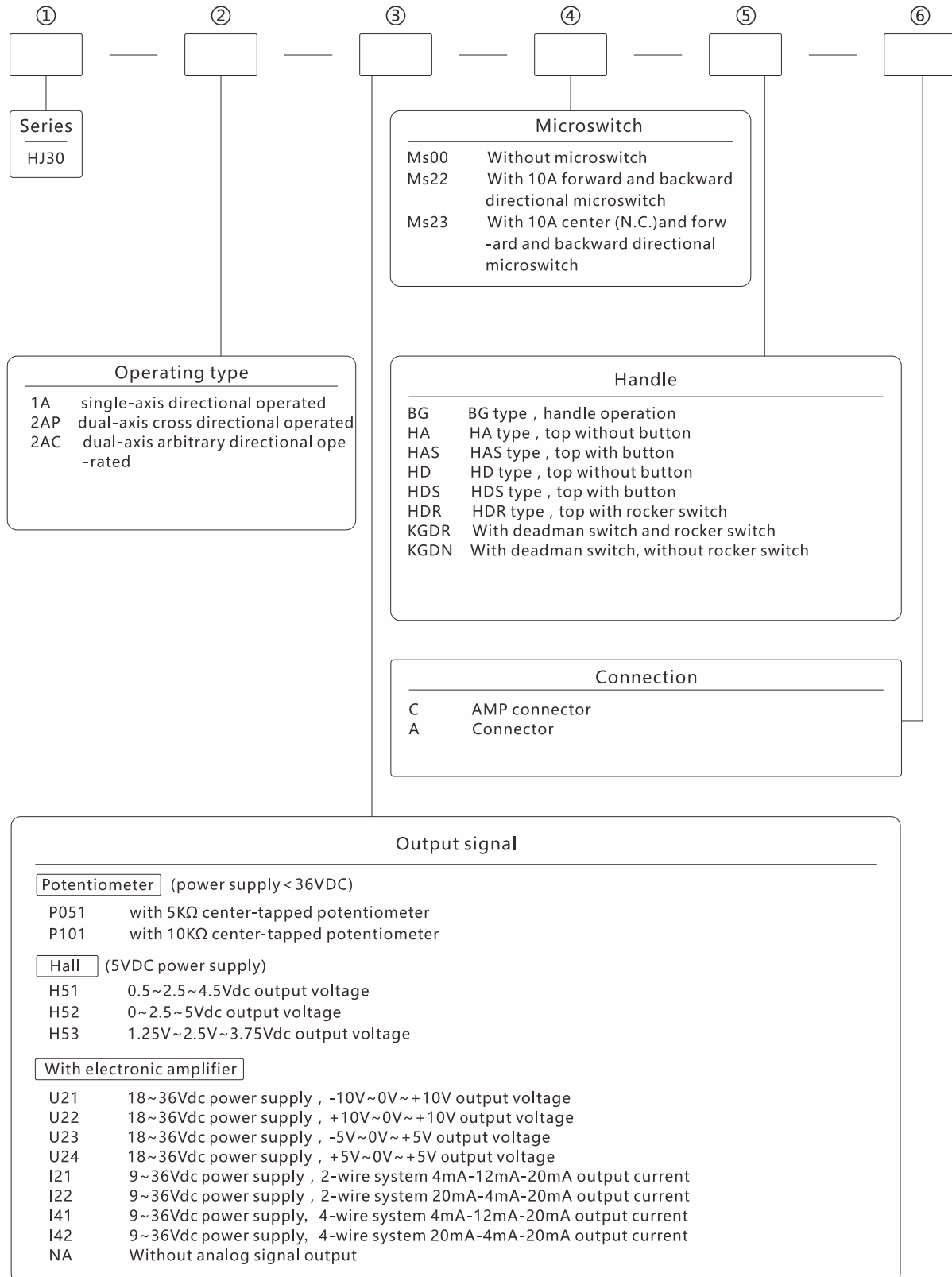
Electrical data

Operated temperature	-30 $^{\circ}$ C ~ +70 $^{\circ}$ C
storage temperature	-40 $^{\circ}$ C ~ +85 $^{\circ}$ C
Protection level	IP65 (Above the flange)



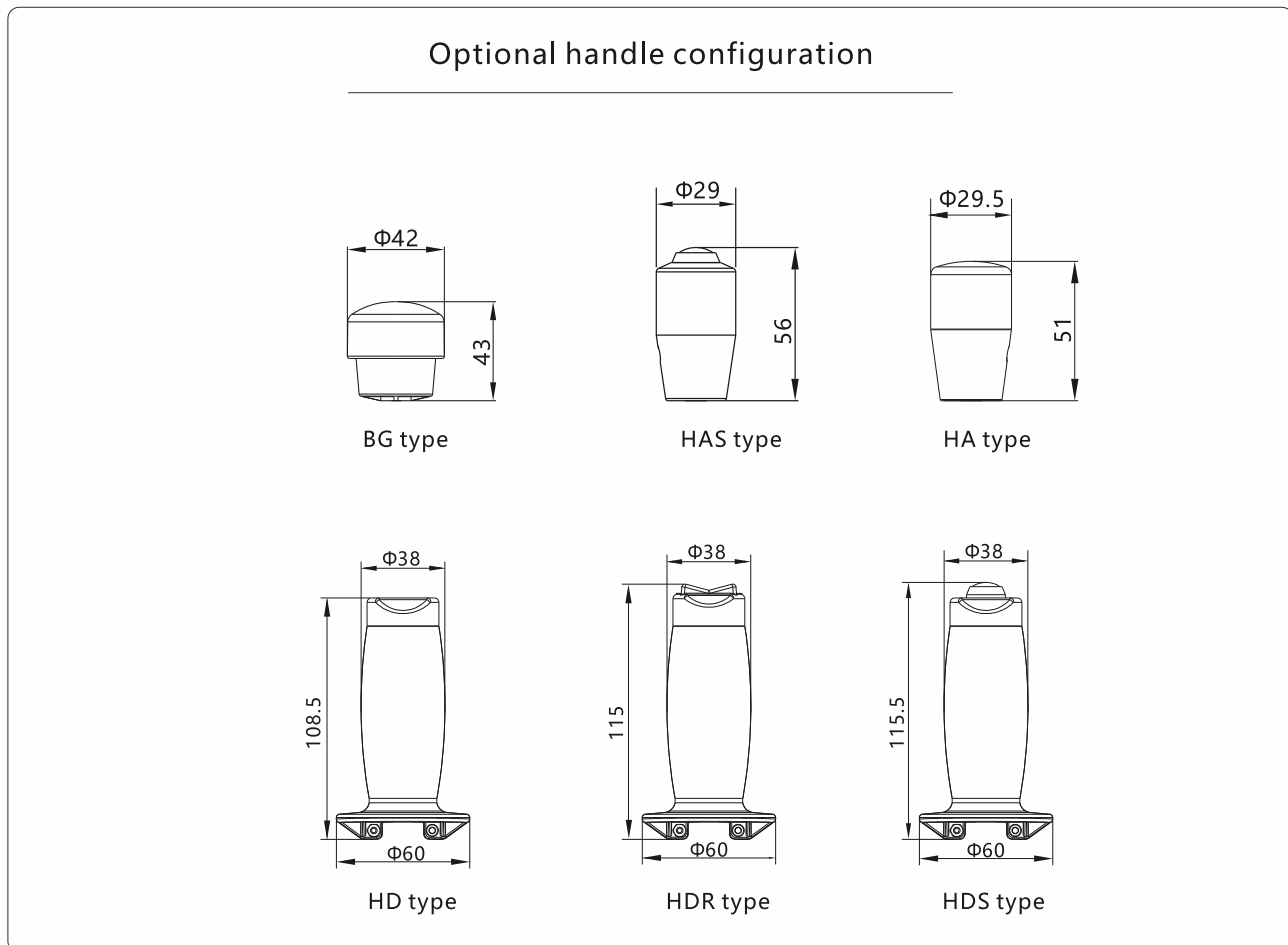
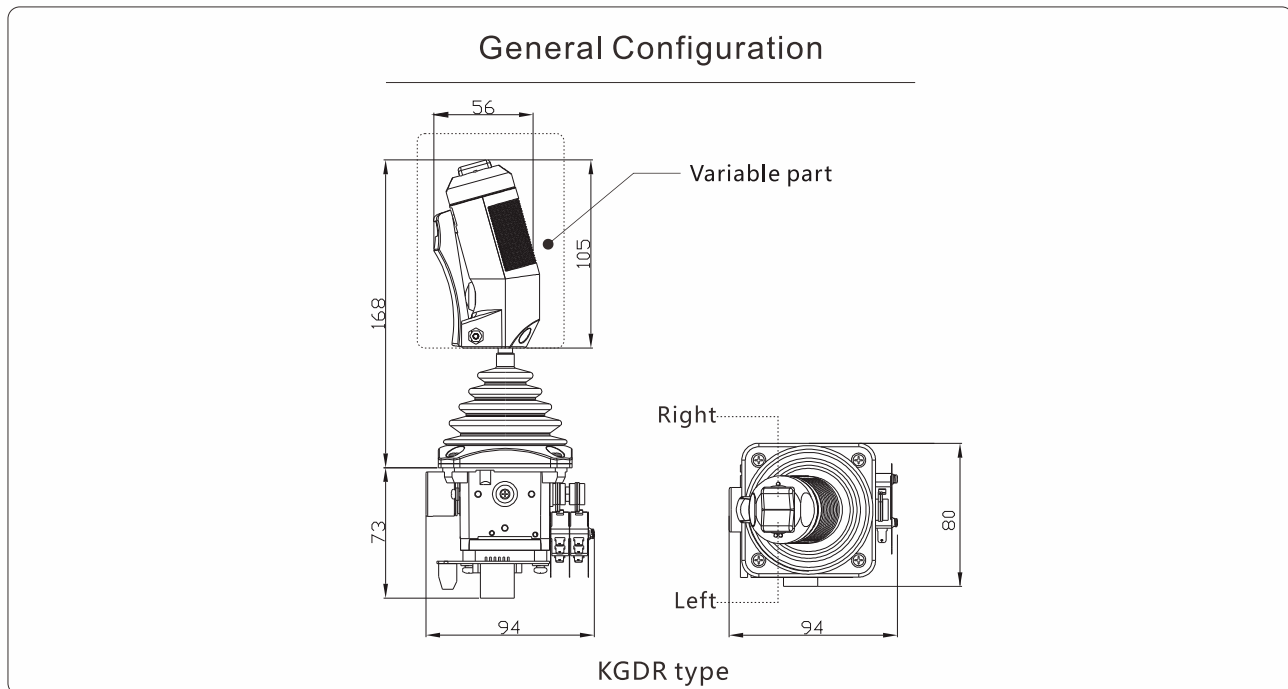
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产品选型 Product Configuration



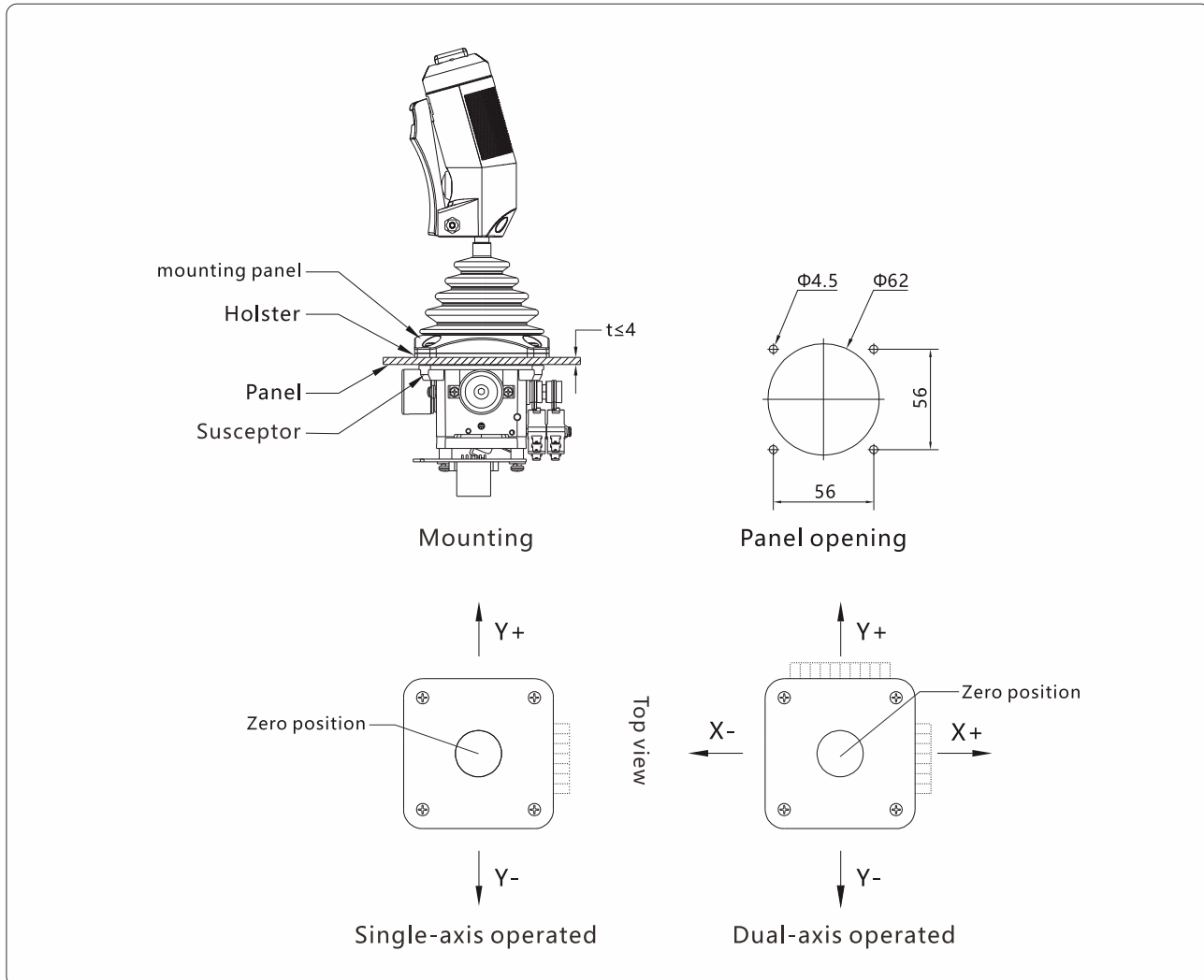
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外形尺寸 Dimensions



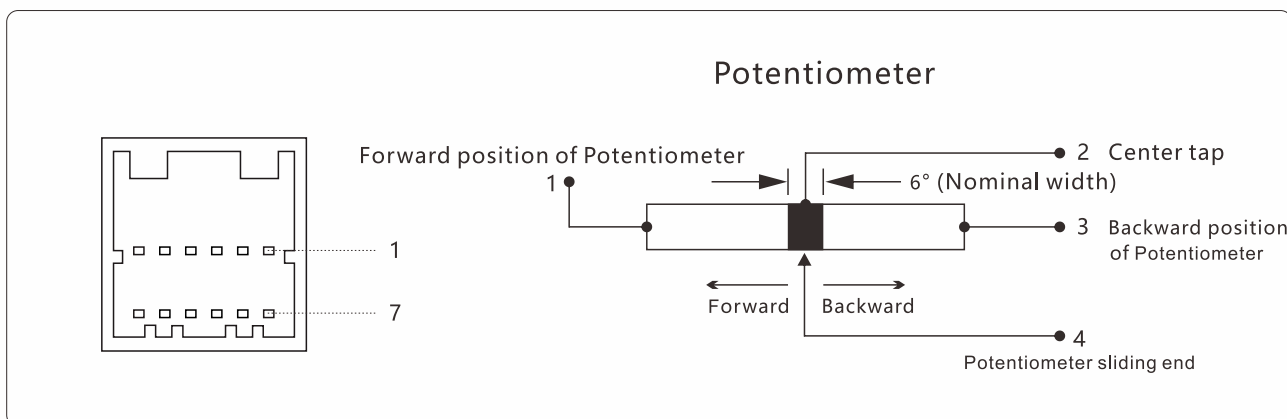
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机械安装 Product Installation



电气安装 Electrical Connections

APM connector



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Pin	Potentiometer	Hall
1	Potentiometer forward terminal	+5Vdc
2	Potentiometer center tap	NA
	Single direction(N/A)	
3	Potentiometer backward terminal	OV
4	Potentiometer wiper	Output
5	Forward Directional switch (N.O.)	Forward Directional switch (N.O.)
	Start position switch of single direction (N.O.)	Start position switch of single direction (N.O.)
6	Forward switch common terminal	Forward switch common terminal
	Common terminal of start position	Common terminal of start position
7	Backward directional switch (N.O.)	Backward directional switch (N.O.)
	Single direction(N/A)	Single direction(N/A)
8	Backward directional common terminal	Backward directional common terminal
	Single direction(N/A)	Single direction(N/A)
9	Rocker left direction (N.O.)	Rocker left direction (N.O.)
10	Handle of top switch common terminal	Handle of top switch common terminal
11	Rocker right direction (N.O.)	Rocker right direction (N.O.)
12	Deadman switch	Deadman switch

Connector

