

Product feature

- Ergonomic design
- Uniaxial or biaxial operation, spring reset
- Sturdy joystick for harsh environments
- Equipped with 10a@30VDC micro switch, independent switch output
- Upper handles for all types

Application

- Drive proportional valves and switching valves for electro-hydraulic control
- Rotary drilling RIGS, high-altitude fire engines, cranes, shield machines and other electrical and electro-hydraulic control systems.



Technical data

Mechanical parameter

Angle	$\pm 37.5^\circ$
Operating force**	10~20N(self return)
Limit force	300N
Life	> 2000, 000(potentiometer) > 5000,000(hall)
Weight (base only)	500g

**93 mm from pivot point

Electric parameter

Analog/Hall voltage type

Voltage	$5.0 \pm 0.5\text{Vdc}$
Current	<9mA
Median voltage	$2.5 \pm 0.15\text{V}$
Output linear error	$\pm 3\%$
Maximum overload voltage	30Vdc
Max reverse voltage	-15Vdc
Load resistance	>10K Ω

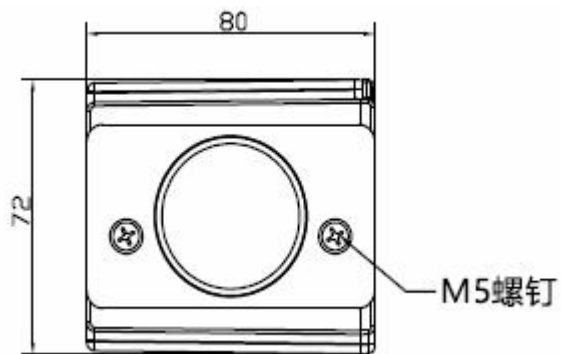
Insulation resistance

>1000MΩ

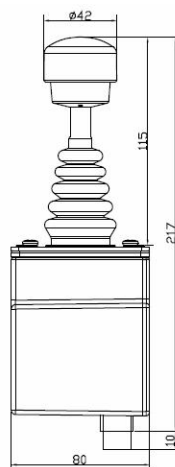
Analog/Hall voltage type	
Current	9 ~ 36Vdc
Resistance	5KΩ, 10 KΩ
Median dead zone Angle	±3°
Max power	0.2W
Micro switch	
Configuration	2 micro switches per axis, normally on
Opening Angle	2° ~ 5°
Load capacity	10A@30Vdc (Resistive load)
Life	1000,000
Insulation Resistance	Above 100MΩ (500Vdc load capacity)
Enviromental parameter	
Operating temperature	-30°C ~ +80°C
Storage temperature	-40°C ~ +85°C
Protection grade	IP65 (above plate)

Product Selection	
Model	S191 - ① - ② - ③ - ④- ⑤
① operating mode	
SA	Spring return, single-axis forward and backward directional operated
② Output	
H51	Hall effect, each axis of single hall sensor,5Vdc power supply,0.5~2.5~4.5V output voltage
H52	Hall effect, each axis of single hall sensor,5Vdc power supply,0~2.5~5.0V output voltage
P051	Potentiometer,<36Vdc power supply, with 5KΩ center-tapped potentiometer,0%-100%Vdc output
P101	Potentiometer,<36Vdc power supply, with 10KΩ center-tapped potentiometer,0%-100%Vdc output
NA	No analog output
③ Micro switch	
N	No micro switch
S1	Single axis with a normally open switch in the middle position
S2	Single axis with two normally open switches in front and rear directions
④ Handle	
M	M handle, top palm operated
ML	M handle, with lift-up mechanical lock
W	W handle, with deadman switch and trigger switch
WS	W handle, with deadman switch and top self locking button
⑤ Wires connection	
L	Direct cable outlet (cable specification: AF200,28#, outlet length: 500mm)

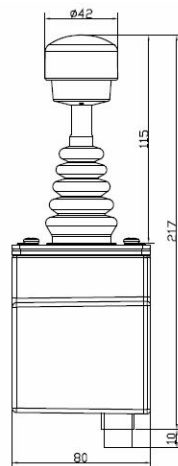
外形尺 Dimensions



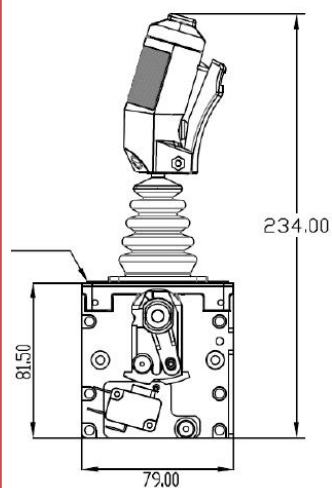
M



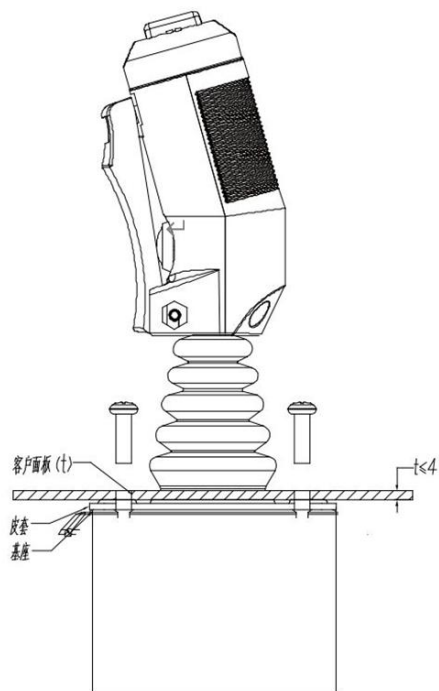
ML



W



Installation of mechanisms



The opening of customer panel is indicated

