

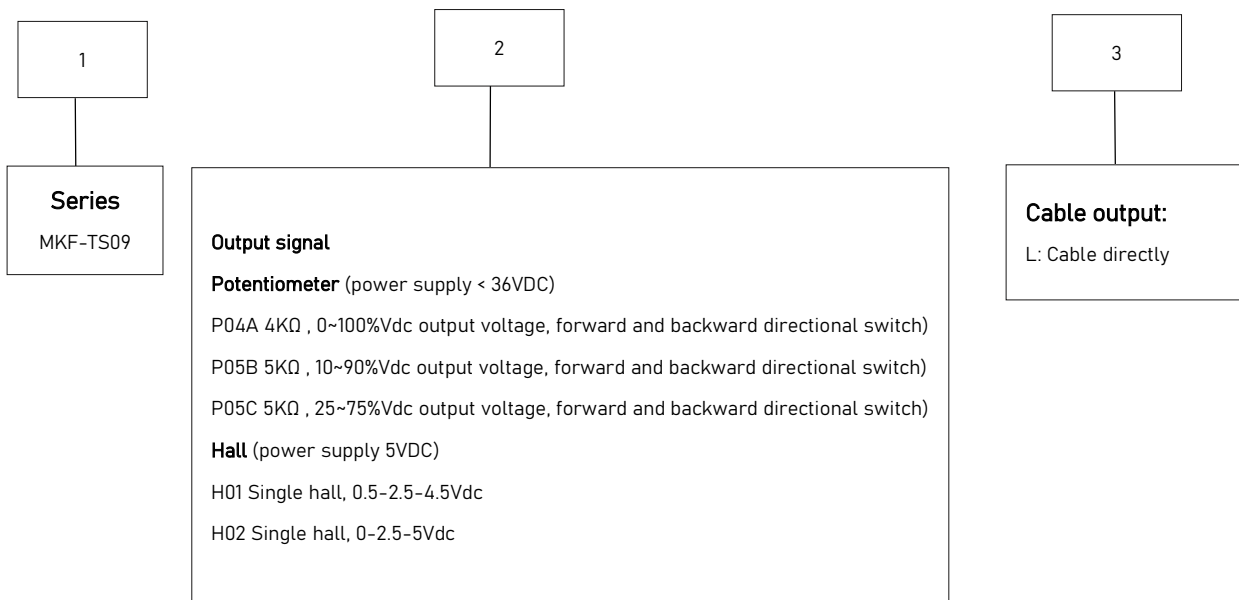
MKF-TS09

Mate Thumb Joystick, Single-axis, Potentiometer or hall effect sensor



DESCRIPTION

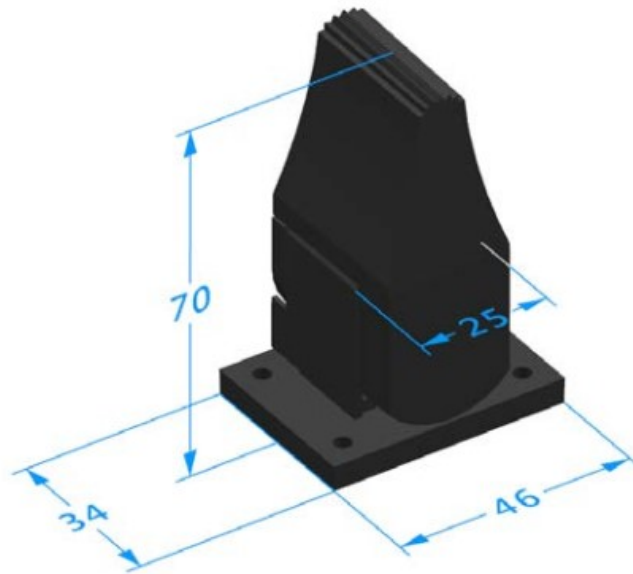
MKF-TS09 is a professional Single-axis finger operated joystick, forward and backward directional operated . Small and easy to install, Spring return to center automatically, Suitable for remote control unit, off-highway vehicle and industrial panel control.



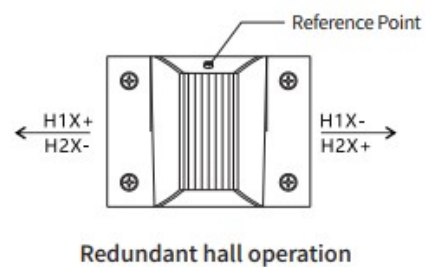
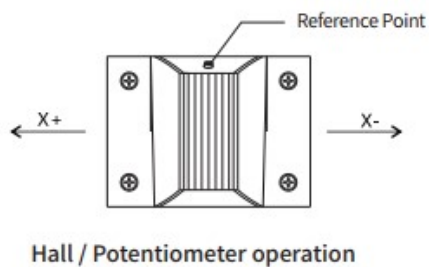
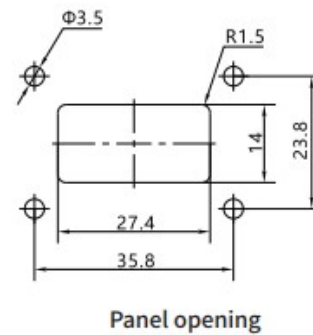
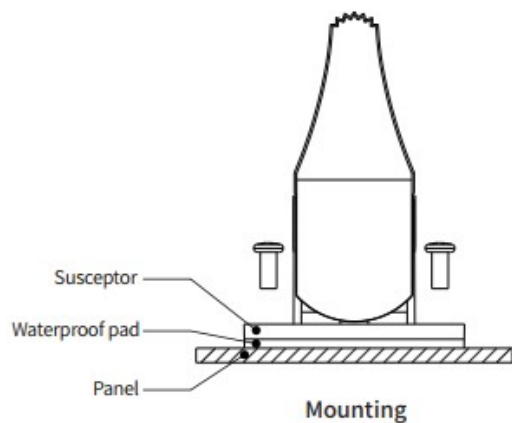
Technical Information

Potentiometer	
Power supply	<36Vdc
Total resistance	4K Ω or 5K Ω
Electrical angle	$\pm 28^\circ$
Center tap voltage	48%~52%Vdc
Center tap angle	$\pm 2.5^\circ$
On-load voltage (max)	32Vdc
Allowance maximum power dissipation	0.25W (25°)
Directional switch	Power supply: <35Vdc Maximum current: 2mA Breakout angle: $\pm 3^\circ$ Contact resistance: <500 Ω
Hall	
Power supply	5.0 \pm 0.5Vdc
Power supply current	<9mA; 18mA (redundant hall)
Maximum allowance overload voltage	30Vdc
Reverse polarity voltage(max)	-10Vdc
Load resistance	>10K Ω
Resistance tolerance	2.5 \pm 0.1V
Output linearity tolerance	< \pm 5%
Mechanical features	
Travel angle	$\pm 30^\circ$
Operating type	Spring return
Breakout force	1.3N
Operating force (max)	3N
Maximum allowable force	>50N
Expecting life	>2 million cycles (Potentiometer) >5 million cycles (Hall)
Weight	45g
Environmental data	
Operating Temperature	-30 $^\circ$ C ~ +70 $^\circ$ C
Storage Temperature	-40 $^\circ$ C ~ +85 $^\circ$ C
Protection level	IP66 (above the flange)

TECHNICAL DRAWINGS



INSTALLATION



Electrical Connections

Connection plug (FCI DUBOX™ 7 Pin Connection plu 76382-307)

Pin	Potentiometer	Hall	Redundant hall	Color
A	Center tap	NA	Aout	Red
B	VCC	VCC	VCC	Blue
C	Wiper output signal	Bout	Bout	Black
D	GND	GND	GND	White
E	Switch terminal (X+)	NA	NA	Yellow
F	Switch terminal (X-)	NA	NA	Green
G	COM	NA	NA	Gray

Note: Mating terminal: FCI DUBOX™ 65240-007 Series Connector, Cable Length 20cm

