

MKF-TS02

Mate Thumb Joystick, Single-axis, Hall effect, IP67 Waterproof Grade



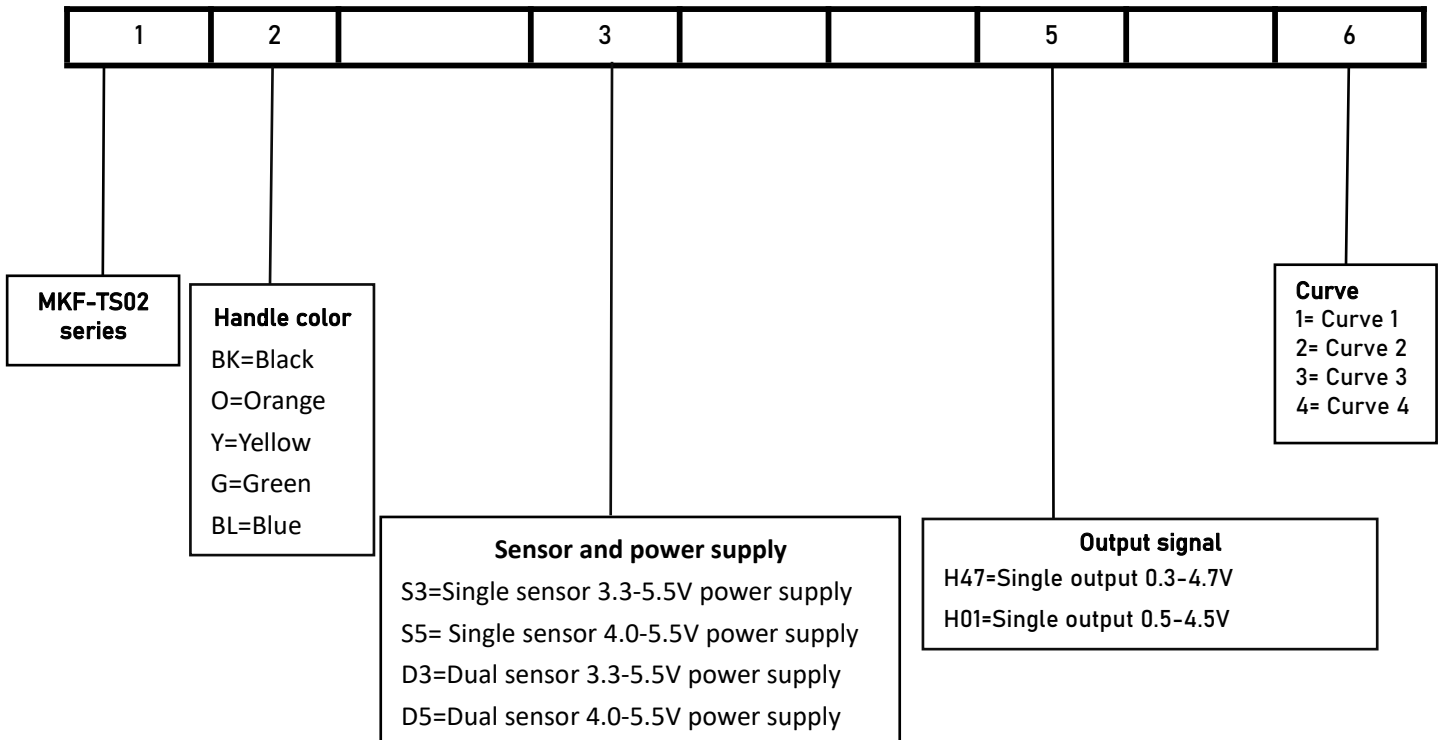
DESCRIPTION

MKF-TS02 is a professional single-axis joystick. Using the most advanced Hall sensor, full temperature range linear compensation, multi-point linearity correction, moving parts and sensor non-contact, long life. Very low voltage work, ultra-low power consumption, especially suitable for battery-powered wireless remote control equipment, commonly used in construction machinery, hydraulic control and other fields.

SPECIFICATION

Button	0
Operation Angle	$\pm 36^\circ$
Power Supply	DC3.3V, DC5V
Outputs	Analog voltage
Life Span	5 million operating cycles
Positioning	Spring automatically return
Operation Temperature	-40°C to +85°C

PRODUCT CONFIGURATION



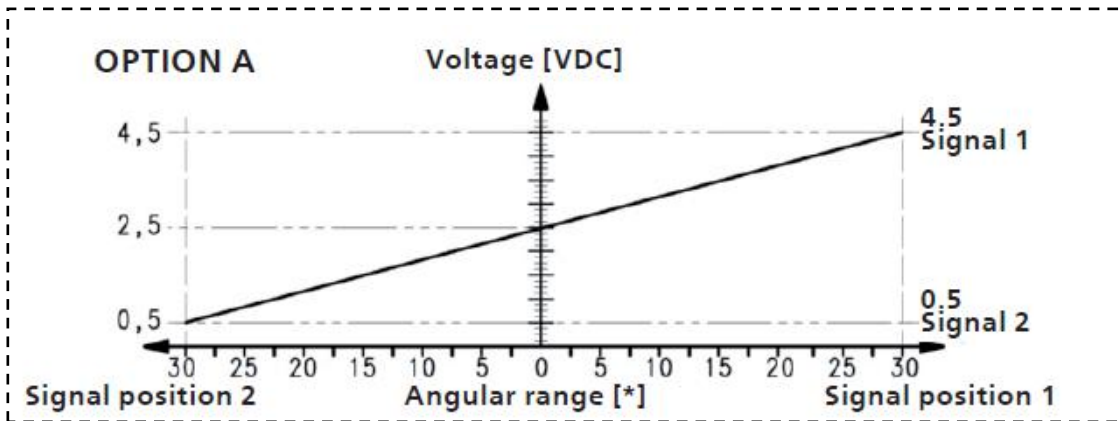
Model selection:

Power supply:

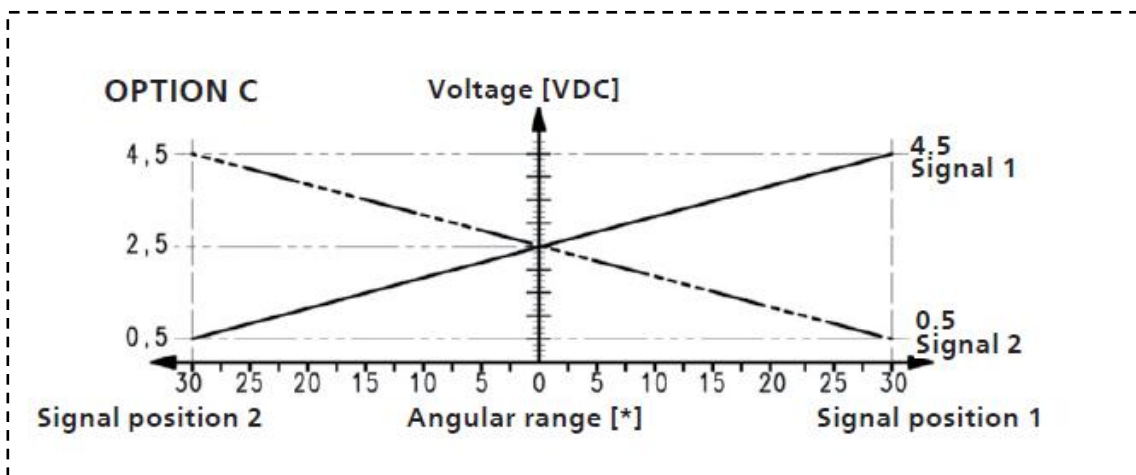
3.3-5.5V:	Limit voltage: Minimum 3.3V; Max 5.5V, recommended minimum 3.6V Single sensor current 8.5mA(no-load 5V). Dual sensor current 17mA(no-load 5V). Curve: Straight line 3 leads: power+, power-, signal
4.0-5.5V:	Limit voltage: Minimum 4.0V; Max 5.5V, recommended 5V Single sensor current 13.5mA(no-load 5V). Dual sensor current 27mA(no-load 5V). Curve: Multi-point curve settings 6 leads: (power+, power-, signal) x 2

Voltage change: Power supply(3.3-5.5V), the corresponding signal will change, (meso-position= $V_{dd}/2$)

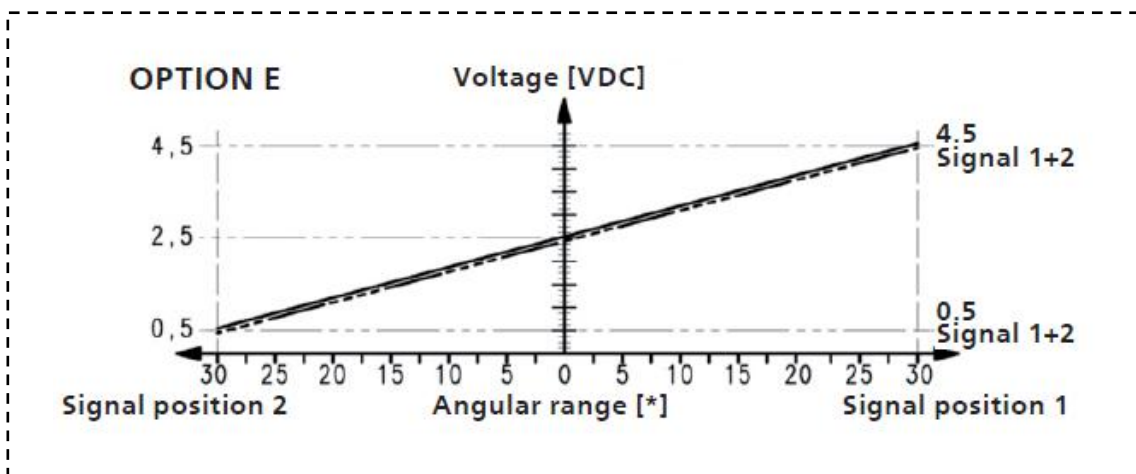
CURVE 1



CURVE 2 (DUAL SENSOR - CROSS CURVE)

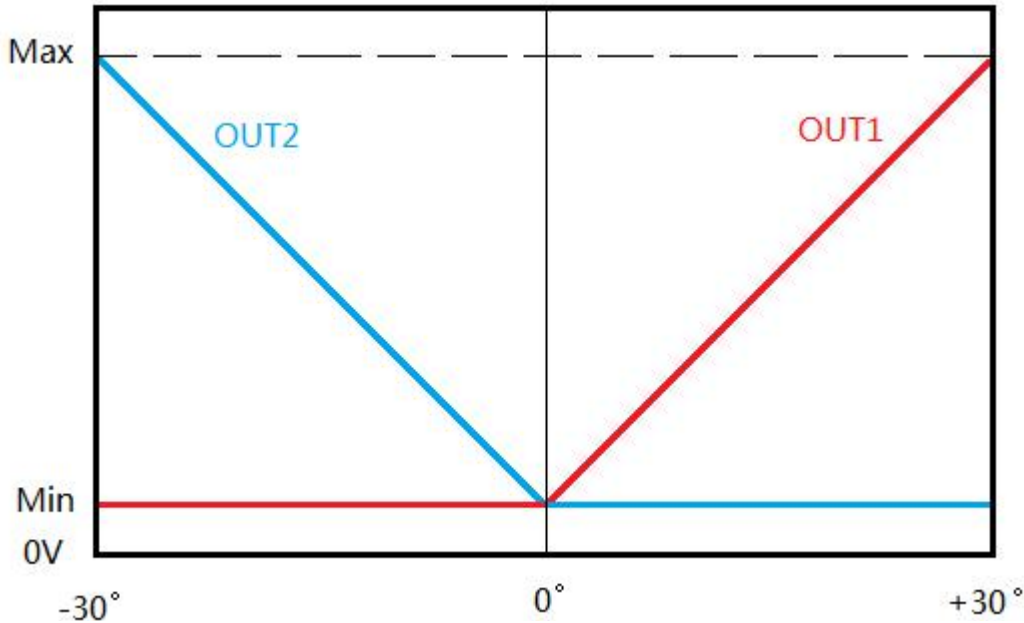


CURVE 3 (DUAL SENSOR-SYNTHETIC CURVE)



CURVE 4 (DOUBLE SIGNAL OUTPUT CURVE)

Dual sensor, Both side output signal lines to independent signals, one forward wire, one back wire, (Dxx)



OUTPUT LEADS

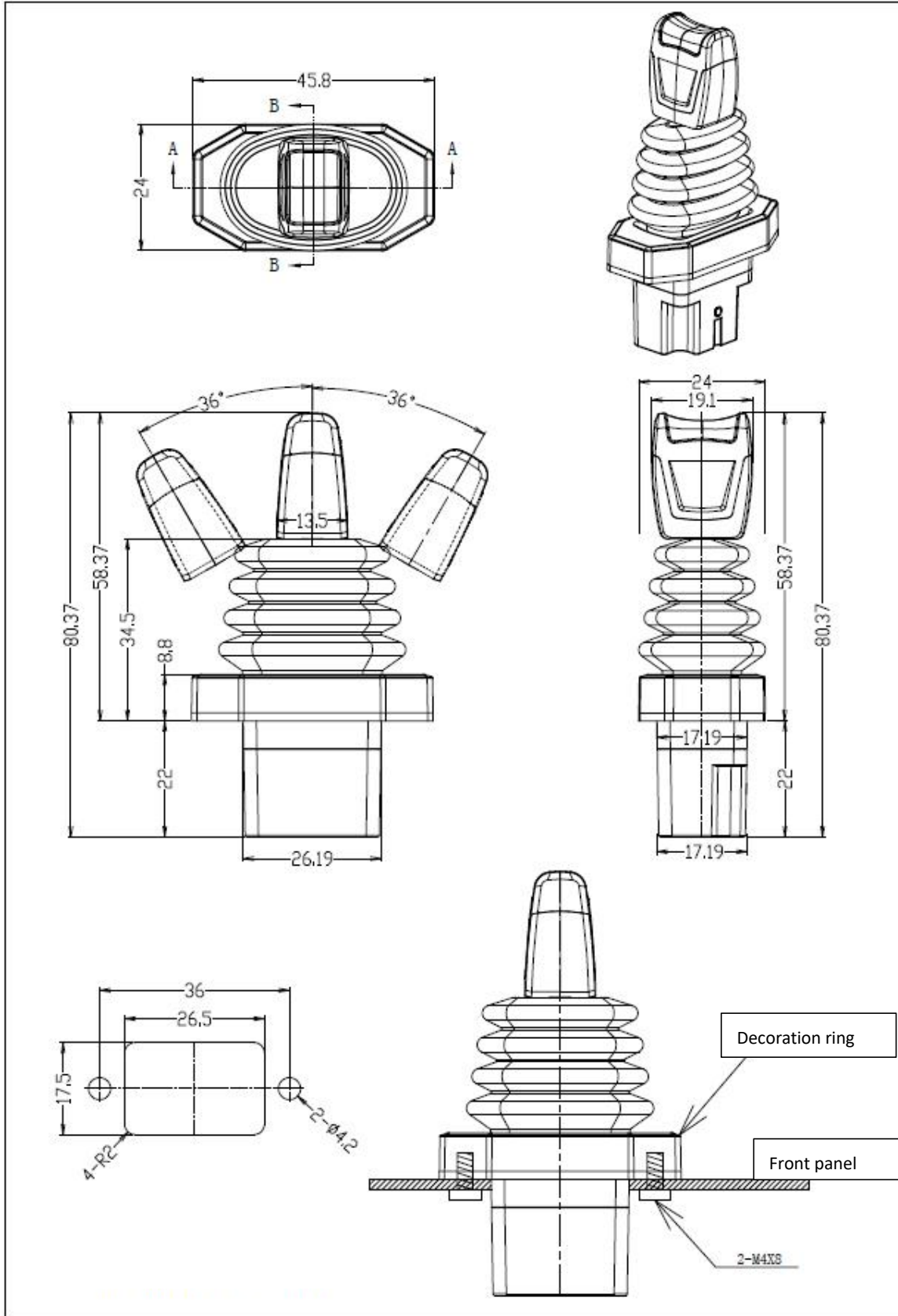
Single sensor lead (length: 18CM)

Lead color	Symbol	Features
Red	V+	Power + 3.3V or +5V
Black	V-	Power - GND
Yellow	Out	Signal output

Dual sensor lead (length: 18CM)

Lead color	Symbol	Features
Red	V1+	Sensor 2 Power +
Black	V1-	Sensor 1 Power -
Yellow	Out1	Signal output 1
Orange	V2+	Sensor 2 Power +
White	V2-	Sensor 2 Power -
Green	Out2	Signal output 2

TECHNICAL DRAWINGS



(Note: MATE reserves the right to change specifications without notice.)