

## MKF-JS25

Mate Industrial Joystick, Hall effect, 2-axis, Panel Mounted



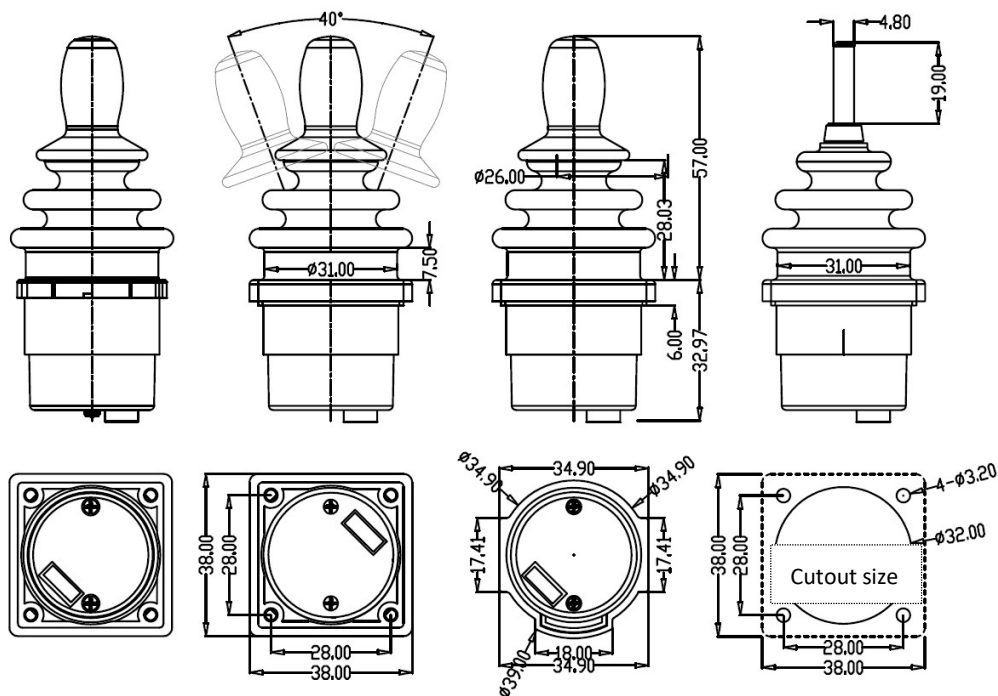
### DESCRIPTION

MKF-JS25 Hall sensor joystick, 2-axis, instrument panel installation method, stainless steel and aluminum alloy materials, spring automatic return structure, German high-precision Hall sensor, linear correction over the entire temperature range, protection level above IP65, Smoother operation feel, ergonomic mechanical design.

## SPECIFICATION

|                        |  |
|------------------------|--|
| Material               | stainless steel + aluminum alloy                                   |
| Protection             | IP65 above the part above the panel                                |
| Positioning            | Spring returns automatically                                       |
| Operating angle        | main joystick $\pm 20$ degrees, square limit (circular angle)      |
| Operating range        | 360 degrees in all direction                                       |
| Sensor                 | Hall sensor  |
| Power supply           | DC5V, DC12-24V   |
| Power consumption      | 9-25MA (5V power supply), the signal output and the number of axes |
| Signal output          | Analog voltage, RS485, RS422, RS232, USB                           |
| Operating life         | more than 5 million times  |
| Working temperature    | -40 degrees to +70 degrees   |
| Storage temperature    | -50°C ~ +80°C  |
| Protection level       | IP65 or above  |
| Base Dimension         | 38.0 x 38.0 x 31.5   |
| Installation Dimension | 28.0 x 28.0  |

## TECHNICAL DRAWINGS



## CAN Signal Output Connector Pins Define

| PINs | MARK      | COLOR  | FUNCTION   |
|------|-----------|--------|------------|
| 1    | +5V       | RED    | +5V POWER+ |
| 2    | GND       | BLACK  | GND POWER- |
| 3    | CAN-L     | YELLOW | CAN-L      |
| 4    | CAN-H     | GREEN  | CAN-H      |
| 5    | (RS485)A+ | BLUE   | RS485 A+   |
| 6    | (RS485)B- | BROWN  | RS485 B-   |

## CAN Bus Communication Mode

- CAN2.0B
- CAN ID: standard frame or extended frame factory preset (can be modified through RS485)
- Baud rate: 125K/250K/500K/1000K by default 250K (can be modified through RS485)
- Interval 5-200ms timesending, 20ms by default (can be modified through RS485)

Data message format (HEX):

|       |                 |                                     |
|-------|-----------------|-------------------------------------|
| BYTE0 | XXL X axis low  | X axis data<br>0X01C0~0X0800~0X0E40 |
| BYTE1 | XXH X axis high |                                     |
| BYTE2 | YYL Y axis low  | Y axis data<br>0X01C0~0X0800~0X0E40 |
| BYTE3 | YYH Y axis high |                                     |
| BYTE4 | ZZL Z axis low  | Z axis data<br>0X01C0~0X0800~0X0E40 |
| BYTE5 | ZZH Z axis high |                                     |
| BYTE6 | Button          | Button                              |
| BYTE7 | 0XA5            | Tail                                |

|       |        |       |        |      |      |        |      |
|-------|--------|-------|--------|------|------|--------|------|
| XXL   | XXH    | YYL   | YYH    | 0X00 | 0X00 | Button | A5   |
| X low | X high | Y low | Y high | 0X00 | 0X00 | Button | Tail |

YYYY Y axis angle  
 XXXX X axis angle  
 Button Button

### X axis data

|         |       |        |      |         |       |        |
|---------|-------|--------|------|---------|-------|--------|
| MAX     | Left  | MIN    | Stop | MIN     | Right | MAX    |
| 0X01C0- | -- -- | 0X07ff | 0800 | 0X0801- | -- -- | 0X0E40 |

### Y axis data

|         |       |        |      |         |       |        |
|---------|-------|--------|------|---------|-------|--------|
| MAX     | Lower | MIN    | Stop | MIN     | Upper | MAX    |
| 0X01C0- | -- -- | 0X07ff | 0800 | 0X0801- | -- -- | 0X0E40 |

### Z axis data

|         |      |           |      |         |      |           |
|---------|------|-----------|------|---------|------|-----------|
| MAX     | WIDE | MIN       | Stop | MIN     | TELE | MAX       |
| 0X01C0- | --   | -- 0X07ff | 0800 | 0X0801- | --   | -- 0X0E40 |

### Button data

|      |      |        |      |      |      |      |      |
|------|------|--------|------|------|------|------|------|
| Bit7 | Bit6 | Bit5   | Bit4 | Bit3 | Bit2 | Bit1 | Bit0 |
|      |      | Button |      |      |      |      |      |

1 = button is pressed; 0 = no button is pressed. E.g. 00 08 00 08 00 00 00 A5