

FINGER JOYSTICK MJ-F15

The MJ-F15 is a compact, redundant industrial joystick based on Hall technology.

It is available in various limiters.

Advantages

- Compact design
- Contactless Hall technology
- Redundant output signal

Application examples

- Radio remote controls
- Industrial trucks
- Measuring machines
- Agricultural and forestry machinery
- Marine
- Medical technology



Electrical data

Sensor technology	Hall-effect
Supply voltage	3.3 to 5 VDC
Tolerance center position	±2 % FSO
Interfaces	0.5 – 4.5 V ratiometric at 5 VDC Redundant or reverse redundant SPI PWM
Resolution	12 bit
Supply current	Typ. 8 mA, max. 16 mA

Electrical connection

Molex iGrid 501645 10 pole
Cable
Others on request

Environmental data

Operating temperature	-20° C up to +85° C
Storage temperature	-40° C up to +85° C
Protection level acc. to IEC 60529	IP 67 above sealing
EMC Immunity acc. to	EN IEC 61000-6-2
EMC Emission acc. to	EN IEC 61000-6-4

Mechanical data

Number of axes	1, 2 or 3
Dimensions	See drawings
Weight	approx. 80 g
Operating force	5 N ± 1.5 N
Max. vertical load	< 500 N
Max. tilt load	< 200 N
Deflection angle	±19°
Center position	Spring
Mounting	Screwed from below or above
Mechanical option	Spring return to center
Limiter	Square Square, soft guided feel Cross gate Single axis in X or Y
Lifetime	10 million cycles

Material

Rubber boot	Neopren
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Handle design

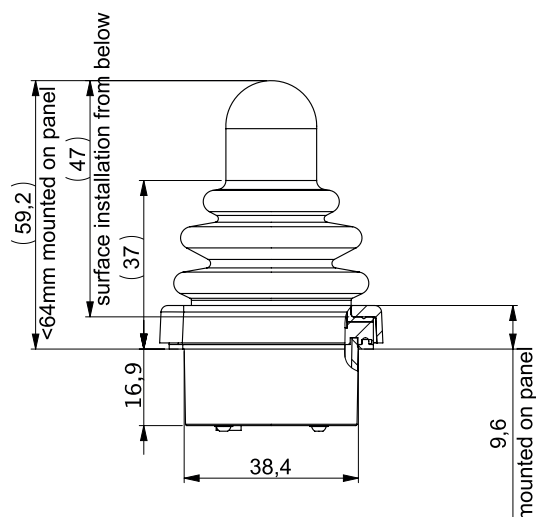
Handle with rubber boot, closed

Handle function

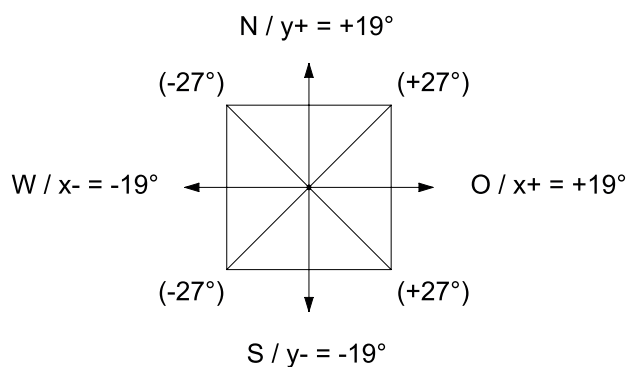
None
Push button / Deadman switch internal

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Dimensions



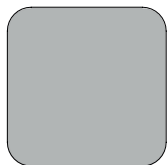
Deflection



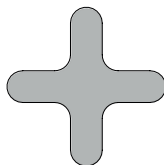
Limiter



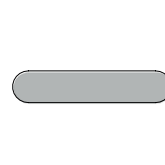
Square,
soft guided feel



Square



Cross gate



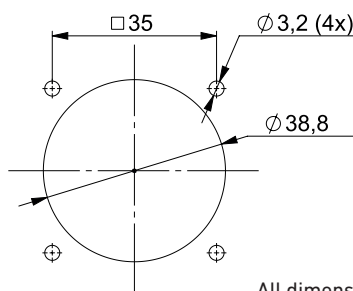
Single axis,
Y locked, X active



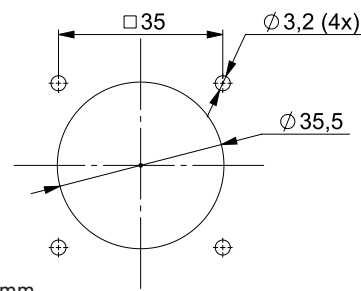
Single axis,
X locked, Y active

Mounting

Mounting from above

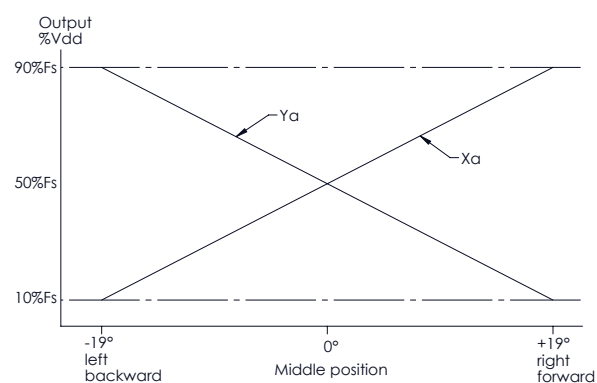
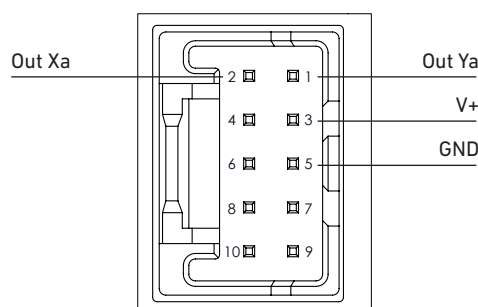


Mounting from below



All dimensions in mm

Electrical connection



Metallux cannot picture the customer's operating and application conditions and the customer's existing environmental influences. We therefore recommend that you carry out your own investigations into the planned use of the products under the actual operating conditions.

We continuously improve our products and also update our data sheets regularly. In this respect, there may be changes in the specification. These changes will apply to orders received by us from the time of the update, unless otherwise agreed.

Our products comply with Directive 2011/65/EU (RoHS) including Directive 2015/863/EU and Regulation (EC) No. 1907/2006 (REACH).

Explanation of Product Codes
Each product code begins with the model name. After that, for each axis, the sensor technology, the interface, and the mechanical option are specified. This is followed by the limiter, the electrical connection, the handle design, and the handle function.

Example for the Product Code of a typical MJ-F15: MJ-F15_XH18_A01_YH18_A01_ZH18_A01_B02_C03_D07_E01

XH18_A01: X-axis Hall ratiometric 0.5 - 4.5 V reverse redundant, spring return to center
YH18_A01: Y-axis Hall ratiometric 0.5 - 4.5 V reverse redundant, spring return to center
ZH18_A01: Z-axis Hall ratiometric 0.5 - 4.5 V reverse redundant, spring return to center
B02 C03 D07 E01: Square limiter, soft guided feel, Cable, Handle with rubber boot closed, Push-button / Deadman switch internal