

THUMB JOYSTICK MJ-T10

The MJ-T10 is one of the smallest 2-axis, redundant industrial joysticks in Hall technology.

Different limiters are available.

Its dimensions: total length approx. 25 mm, diameter approx. 18 mm, installation depth approx. 13 mm

Advantages

- Extremely small joystick
- Contactless Hall technology
- Redundant output signal

Application examples

- Control element in hand joysticks
- Control element in armrests
- Radio remote controls
- Off-highway vehicles



Electrical data

Sensor technology	Hall effect
Supply voltage	5 V \pm 0.5 V
Tolerance center position	\pm 0.25 VDC
Tolerance full travel	\pm 0.2 VDC
Output options	0.5–4.5 V ratiometric 0.5–4.5 V reverse redundant SPI PWM
Resolution	16 bit
Total current consumption	< 20 mA

Electrical connection

Single wires, approx. 200 mm

Environmental conditions

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 area*
EMC Emission	DIN EN 61000-4-3*
EMC immunity	DIN EN 61000-6-3*
ESD	DIN EN 61000-4-2*

* Expected values

Mechanical data

Axes	1 or 2
Dimensions	See drawings
Weight	approx. 15 g
Operation force	1.5 N \pm 0.5 N
Max. vertical force	< 100 N*
Max. horizontal force	< 70 N*
Deflection angle	\pm 22.5° each direction
Centering	Spring return
Mounting	M12 with lock nut screwed from below
Limiter	Round, guided feel Round, no guided feel Cross gate Single axis in X or Y
Lifetime	5 Mio. cycles

Material

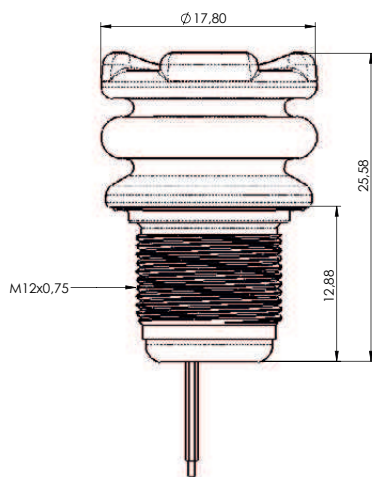
Housing	Stainless steel 1.4305
Rubber boot	Neoprene CR 40

Handle

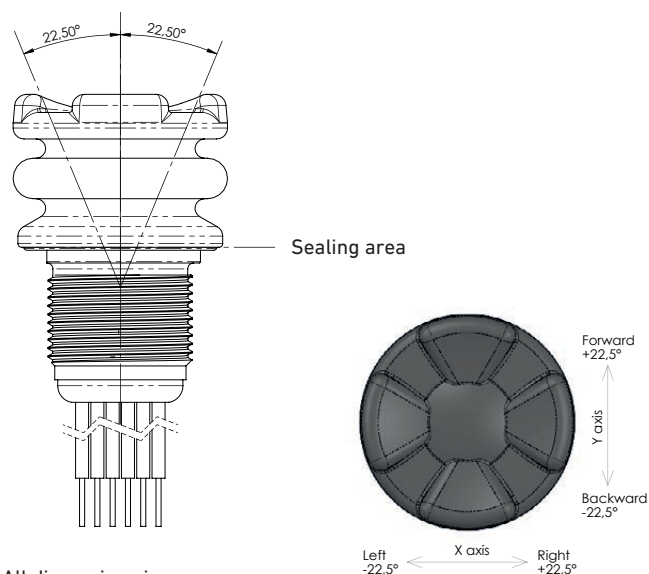
Rubber boot	See drawings
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Drawings



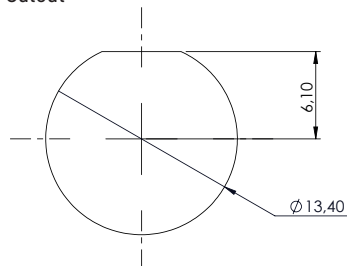
Deflection



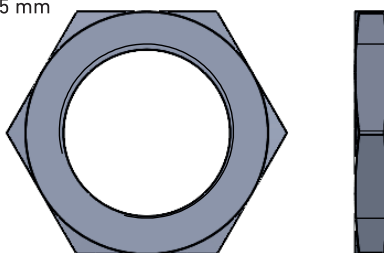
All dimensions in mm

Mounting

Cutout



M12 x 0,75 SW 16
Thickness 2.15 mm

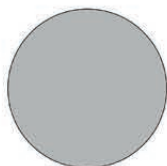


The mounting plate must not be thinner than 1.5 mm.

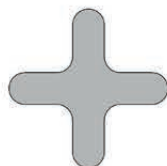
Limiter



Round, guided feel



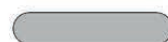
Round, no guided feel



Cross gate



Y axis active,
X axis blocked



X axis active,
Y axis blocked

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).