

# HAND JOYSTICK MJ-H10 (PREVIOUSLY MJ-30K)

This multiaxial hand joystick is designed for precise drive and function control. State-of-the-art technology, a robust construction and an ergonomic design make it the ideal control element for demanding functions. Thanks to the special handle design, the control elements can be easily replaced on site. This saves time, reduces machine downtimes, increases machine availability and extends the already long service life.

## Advantages

- Hall or potentiometer technology
- Compact and robust design
- Low installation depth
- Freely configurable

## Application examples

- Industrial trucks, forklifts and aerial work platforms
- Agricultural and construction machinery
- Municipal vehicles
- Cranes, excavators



### Electrical data

Sensor technology	Hall-effect or potentiometric
Supply voltage	Hall: 3 – 5 VDC CAN: 8 – 32 VDC
Total current consumption deflection sensor unit	Typ. 15 – 20 mA
Total current consumption CAN base device	Typ. 20 – 35 mA
Total current consumption CAN bus handle	Typ. 15 – 25 mA excl. control units
Load resistance	>2 kΩ
Resolution	12 bit DAC
Interfaces	CANopen LIN SPI Digital PWM Analogue 0.5 - 4.5 V Direct wiring Further output protocols on request

### Mechanical data

Deflection angle	X/Y axis $\pm 20^\circ$
Operating force deflection X/Y axis	6,5 N
Max. deflection force	500 N
Service life B10	10 million cycles
Installation depth	36 mm / 47 mm

### Environmental data / Functional safety

Operating temperature	-20 °C to +85° C
Storage temperature	-40 °C to +85° C
Protection level acc. to IEC 60529	IP 53
Functional safety	PL d / SIL 2 ready
EMC compliance	EN 61000-4-3 criterion A EN 61000-4-4 level 2 EN 61000-4-2 criterion B
ESD compliance	EN 61000-4-2 criterion B $\pm 8$ kV (contact discharge) $\pm 15$ kV (air discharge)

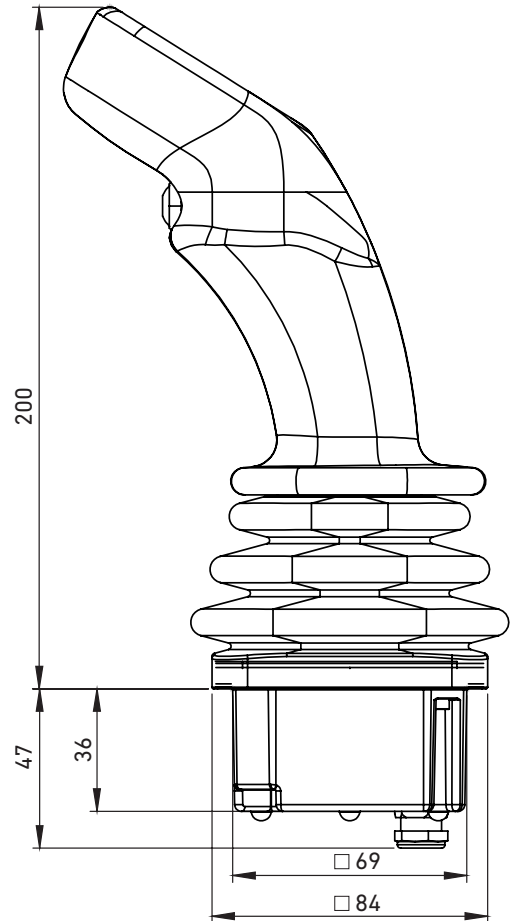
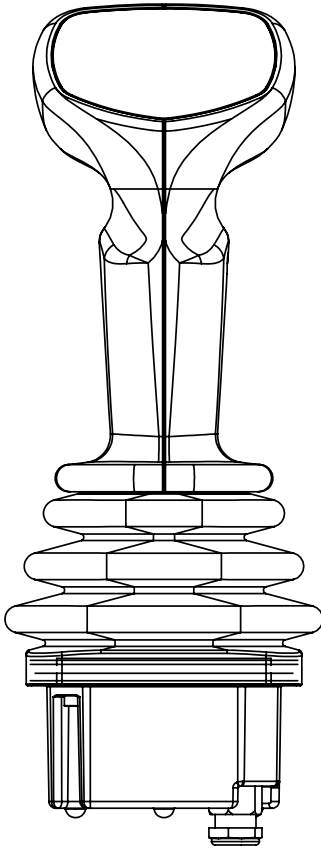
### Options

Freely configurable thumb panel
Deflection angle adjustment
Position detent*
Friction brake*
Deadman function
Base and handle available separately
Modular base
Individually crafted handle shapes

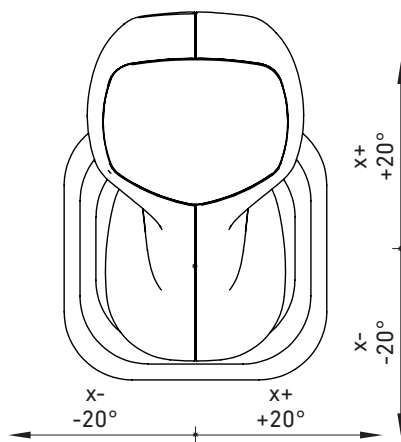
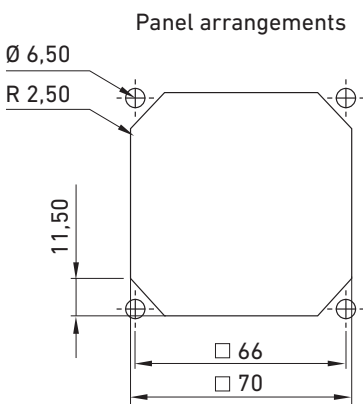
\* Conductive plastic only

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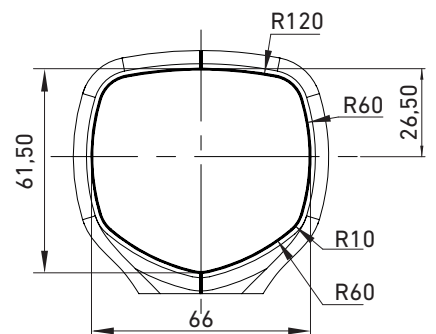
## Drawings



Lever operation



Thumb plate configuration



All dimensions in mm

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