

## Robust joystick

Ergonomic joystick for parallel arrangement in the tightest installation spaces

J7...

- + Developed for adverse environmental conditions, protection class IP67 (electronic)
- + For forces up to 1000 N in x- and y-direction
- + Space-saving design for ergonomic arrangement in armrests
- + High reliability thanks to shielded, contactless Hall technology
- + Friction brake, overpressure points and no-detent actuation for the realisation of various functions
- + Enables the design of hydraulic-free cabs
- + No maintenance necessary



### Use

The J7 joystick was developed primarily for installation in the armrests of commercial vehicles. The design combines a high level of robustness, safety and reliability in a very small space. It is able to fully utilize these strengths under high loads and high-use applications.

### Variants

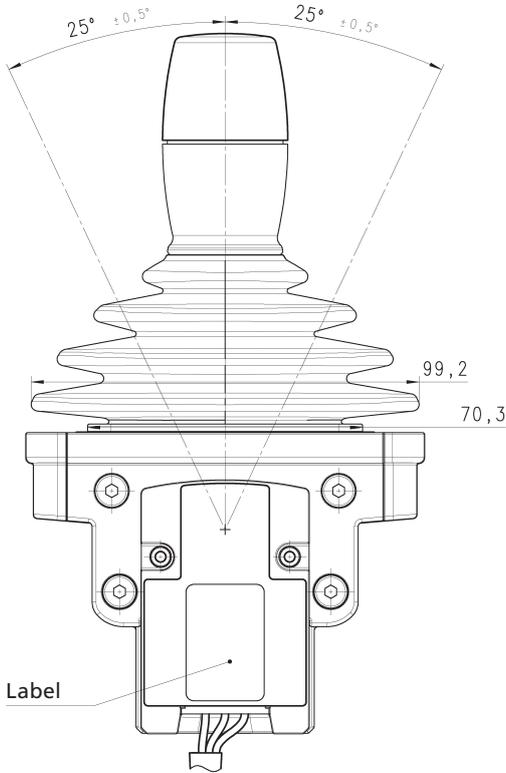
Depending on requirements, ratiometric analog or CAN output signals are available. In general, the J7 is available as a redundant or semi-redundant version. The space-saving design allows additional joysticks to be placed alongside one another. Thus, the option exists for, e.g., double-lever operation for the simultaneous control of various functions on construction and agricultural machinery.

The relevant corresponding technical documents will be supplied with the product.

Certain product descriptions can be similar therefore please ensure that you have the latest version of documentation for your specific product prior to any use. elobau reserves the right to change technical data and documentation without notice.

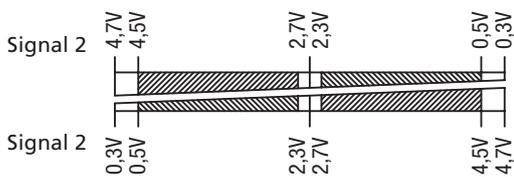
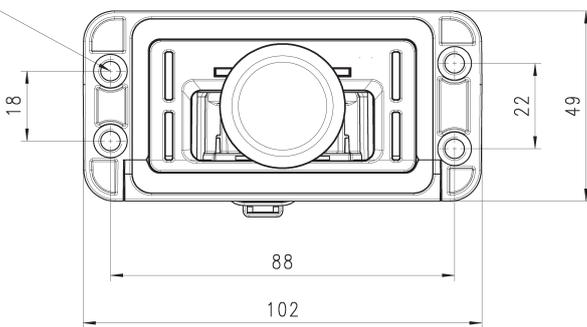
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**Mechanical assembly**

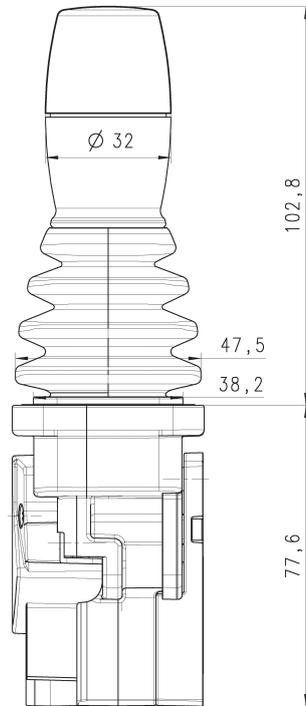


View without gaiter

(4x) M6x16 deep

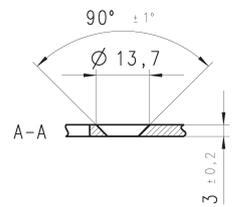
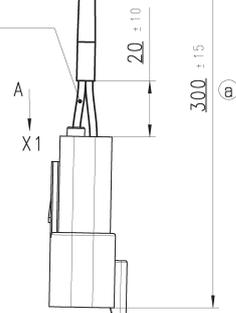


 = recommended tolerance range (electronic and mechanical tolerances over the life cycles) for software applications

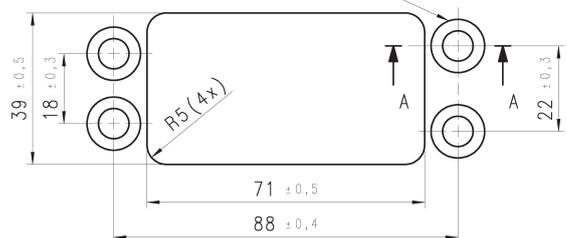


Insulating sleeve

Cable type:  
FLRY 0.75 mm<sup>2</sup>



Fastening with countersunk screw according to DIN EN ISO 10642 (4x)



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## Installation dimensions

Installation size	49 x 102 x 77.6 mm (with friction brake 55 x 102 x 77,6 mm)
Installation	From below, screw connection from above, 4x M6 screws
Height of operating lever	102.8 mm

## Key mechanical data

Technology	Contactless Hall sensor technology
Actuation	Single-axis
Mechanical life	> 4 million cycles (friction brake: > 2 million cycles)
Deflection	± 25°
Breakout	16,1 N (at distance of 112 mm to pivot point)
Actuating force	No detent 11,6-24,1 N (at distance of 112 mm to pivot point) Friction brake 26,8 N (at distance of 112 mm to pivot point)
Actuation type	No detent, no detent with overpressure points, friction brake
Static capacity	1000 N (at distance of 112 mm to pivot point)
Storage / operating temperature range	-40°C to +85°C
Protection class electronic	IP67 DIN EN 60529
Protection class mechanical	IP54 DIN EN 60529
Connection	Wired connection with Molex Mini-Fit connector 300 ± 15 mm Wired connection with Deutsch DT connector 300 ± 15 mm Wired connection with Deutsch DTM connector 300 ± 15 mm
Weight	800 g

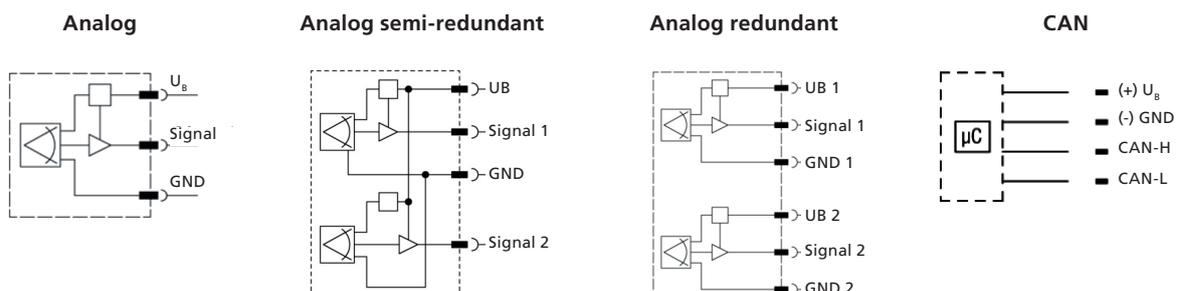
The relevant corresponding technical documents will be supplied with the product.

## Key electrical data

	J7A6	J7H6	J7R6
Operating voltage	4.5 - 5.5 V DC		
Output signal	0.5 - 4.5 V DC		
Current consumption	15 mA per channel		
Load resistance	> 20 kΩ		
Center position	2.5 V ± 0.2 V		
Resolution	< 0.025°		
Reverse connection protected	Yes		
Short-circuit protected against +UB max.	Yes		
Short-circuit protected against GND	Yes		
EMC resistance	DIN EN ISO 14982:2009 Agricultural and forestry machines DIN EN 13309:2010 Construction machinery ISO 13766:2000 Earth-moving machinery		

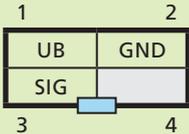
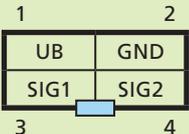
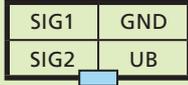
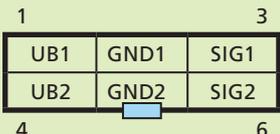
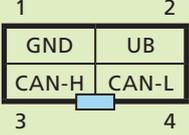
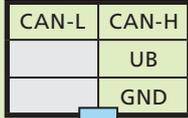
	J7CJ
Operating voltage	9 – 32 V DC
Output signal	CAN
Current consumption	< 120 mA
Resolution	< 0.09°
Reverse connection protected	Yes
Short-circuit protected against +UB max.	Yes
Short-circuit protected against GND	Yes
Protocol	SAE J1939
Baud rate	250 kbit/s
Node ID	0x70 ... 0x79
Transmitting cycle	20 ms
Terminating resistor	No
EMC resistance	DIN EN 13309:2010 Construction machinery ISO 13766: 2000 Earth-moving machinery

## Wiring



The relevant corresponding technical documents will be supplied with the product.

## Connector assignments

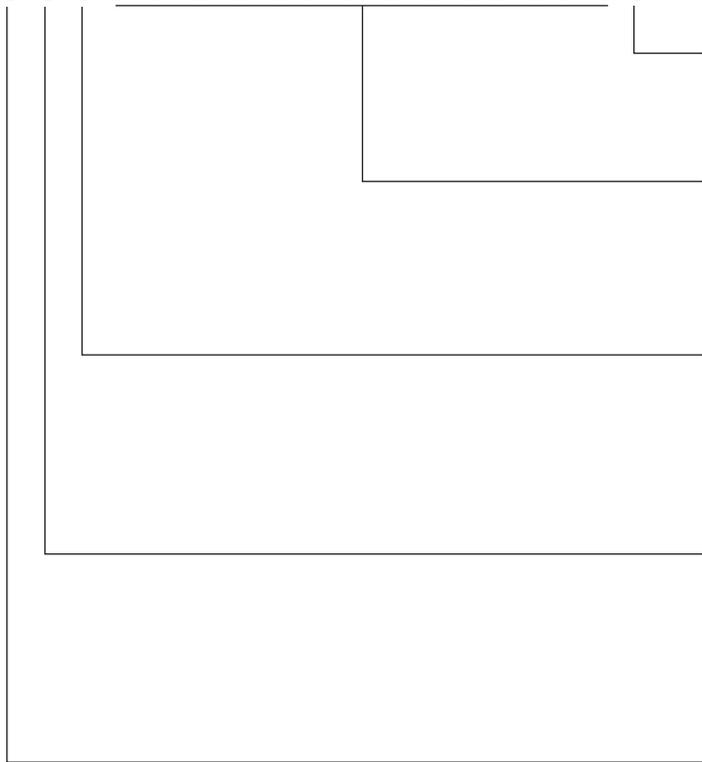
		MOLEX-minifit	Deutsch DT04/DTM04
Connector assignments of joystick axes	Analog		
	Analog semi-redundant		
	Analog fully redundant		
	CAN		

## Specifications of your joystick

Specifications are defined using our online configurator  
 at [http://www.elobau.com/elobau\\_konfiguratoren/J7](http://www.elobau.com/elobau_konfiguratoren/J7)

## Specifications of your joystick

J7 . . . A 0 A A 0 A A A .



Connector	
<input type="checkbox"/>	B = Molex Mini-Fit
<input type="checkbox"/>	F = Deutsch DT
<input type="checkbox"/>	G = Deutsch DTM

### Standard handle

Function	
<input type="checkbox"/>	C = no detent 25°
<input type="checkbox"/>	E = no detent 25° with overpressure point at 20°
<input type="checkbox"/>	F = friction brake

Output signal	
<input type="checkbox"/>	6 = analog 0.5–4.5 V DC ratiometric
<input type="checkbox"/>	J = CAN Protocol J1939

Electronics	
<input type="checkbox"/>	A = analog single-channel
<input type="checkbox"/>	C = CAN
<input type="checkbox"/>	H = analog semi-redundant
<input type="checkbox"/>	R = analog redundant

