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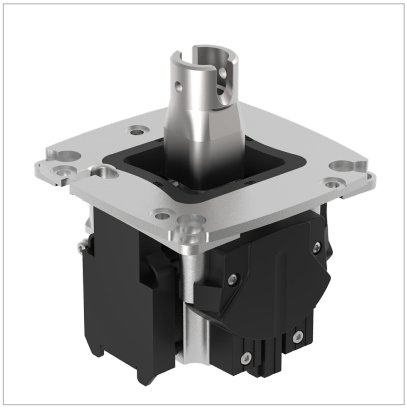

Robust Joystick J4 Base

Robust, top mounted.

The J4 robust joystick is ideal for high-stress and high-frequency use thanks to its robust design. It was designed for use in mobile machinery, such as wheel loaders for operating the bucket functions.

Technical specifications

- Robust joystick for installation from above
- Space-saving design
- High reliability and long service life thanks to contactless Hall-effect and reed technology
- Available with different output signals: analogue, redundant, CAN bus connection (CANopen/SAEJ1939) or with switching output
- IP67 protection class of electronics, ideal for harsh environmental conditions
- Deflection ±20°
- Available with various actuation types: no-detent, detent, with friction brake or centre position interlock, any functioncan be optimally operated
- Designed for extremely heavy loads (x-/y-axis: 2000 N, z-axis: 700 N at 190 mm lever length each)

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Technical drawing

IMAGE 1/3

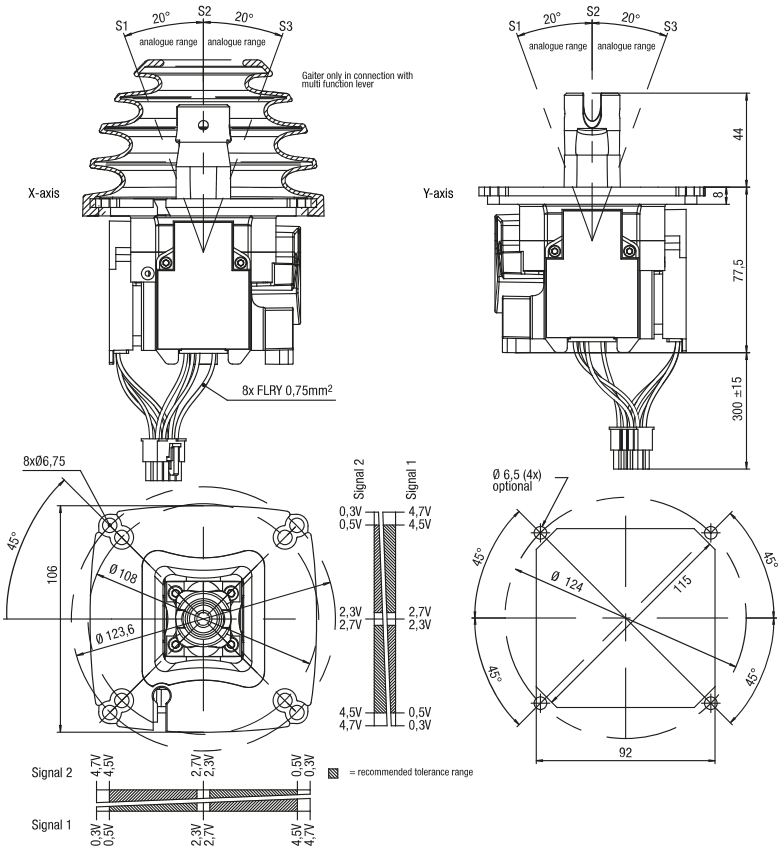

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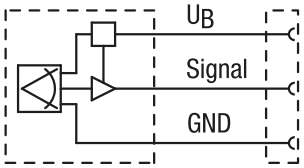
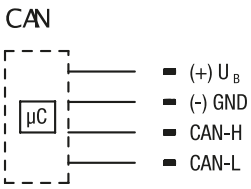
IMAGE 2/3

Standard

Analogue each X- and Y-axis

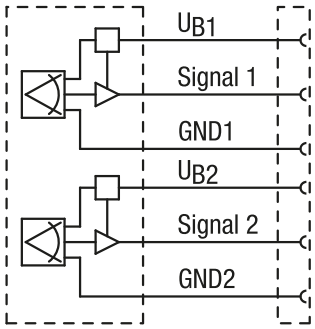


CAN

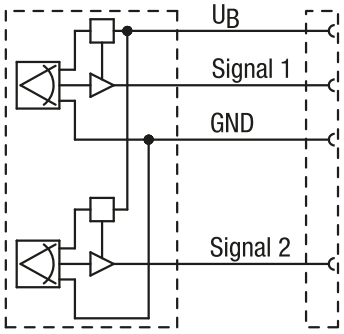


Optional

Redundant each X- und Y-axis



Semi-redundant each X- and Y-axis



Switching output each X- and Y-axis

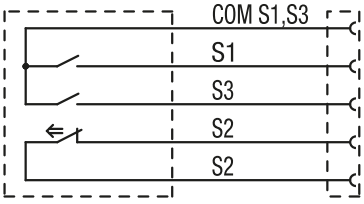


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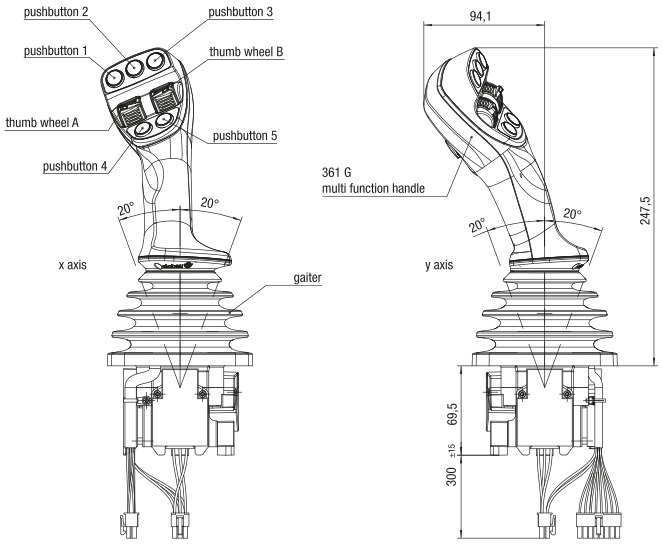
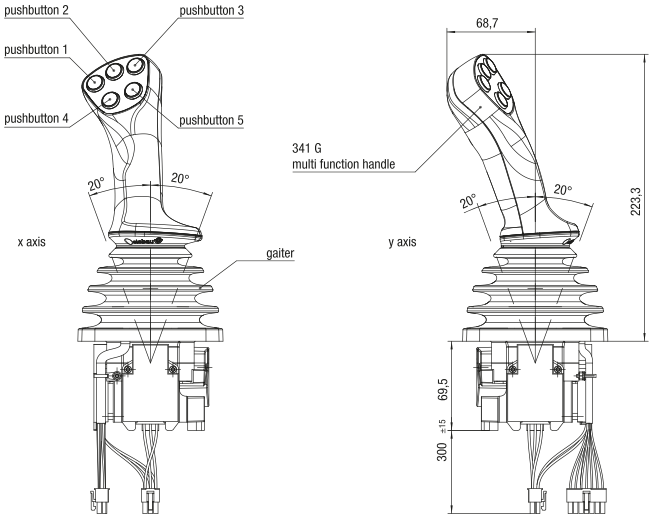
IMAGE 3/3

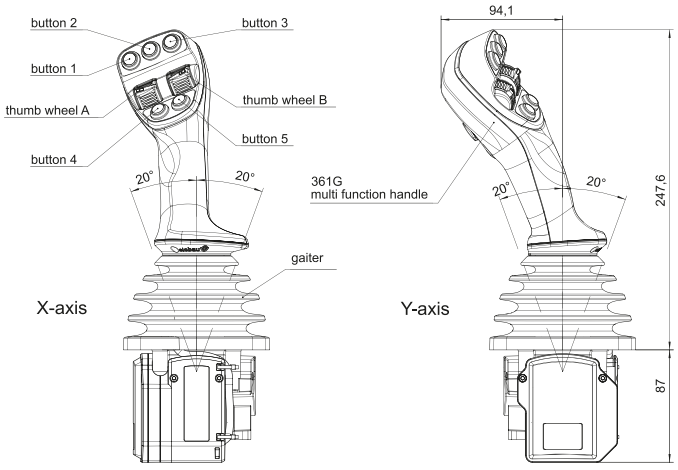
J4 joystick with Multi-function handle 361G...



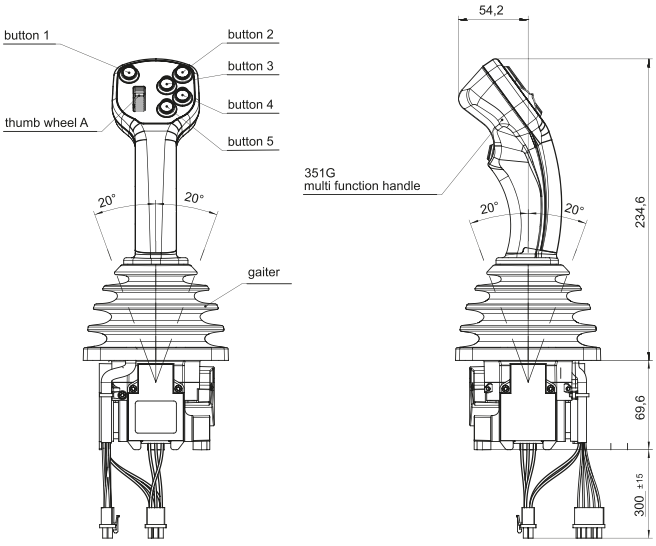
J4 joystick with Multi-function handle 341G...



J4 joystick with CAN electronics und Multi-function handle 361G



J4 joystick with Multi-function handle 351G



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Electrical data

Attribute	J4A1...	J4A6...	J4A7...	J4C6...CANopen	J4C6...SAE_J1939	J4D8...
Max. switching voltage	-					48 V DC
Max. switching current	-					0.3 A
Max. switching power	-					10 W
Max. switching power	-					10 VA
Contact form	-					NO
Polarity reversal protection	yes			-		
Output signal min.	-	0.5 V DC		-		
Output signal max.	-	4.5 V DC		-		
Output signal min.	4 mA	-				
Output signal max.	20 mA	-				
Output signal	analogue			-		digital
Output signal - centre position/zero position	-	2.5 V DC		-		
Output signal - centre position/zero position	12 mA	-				
EMC immunity (Norm)	DIN EN 13309, DIN EN ISO 14982			-		
EMC emission (Norm)	DIN EN 13309, DIN EN ISO 14982			-		
Operating voltage min.	10 V DC	4.5 V DC	10 V DC	9 V DC		-
Operating voltage max.	30 V DC	5.5 V DC	30 V DC	36 V DC		48 V DC
Current consumption	max. 18 mA	max. 15 mA		< 120 mA		-
Load resistance min.	-	20000 Ohm		-		
Load resistance at 10V max.	250 Ohm	-				
Load resistance al 30V max.	1250 Ohm	-				
Short-circuit resistance to GND	no	yes	no	-		
Short-circuit resistance to supply	no	yes	no	-		
Outputs (quantity, type)	-					6
Technology	Hall					Reed
Protocol	-			CANopen	J1939	-
Transmitting cycle	-			100 ms		-
Baud rate	-			250 kBit/s		-
Bus terminating resistor	-			no		-

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Mechanical data

Attribute	J4A1...	J4A6...	J4A7...	J4C6...CANopen	J4C6...SAE_J1939	J4D8...
Max. lever load with specified lever length	190 mm / 2000 N					
Deflection	± 20 °					
Service life, mechanical (Cycles)	2000000					

Material information

Attribute	J4A1...	J4A6...	J4A7...	J4C6...CANopen	J4C6...SAE_J1939	J4D8...
Housing material	Zinc diecasting Z410					
Shaft material	Zinc diecasting Z410					
Gaiter material	EPDM					

Environmental conditions

Attribute	J4A1...	J4A6...	J4A7...	J4C6...CANopen	J4C6...SAE_J1939	J4D8...
Protection class, electronic	IP67 DIN EN 60529					
Operating temperature min.	-25 °C					
Max. operating temperature	85 °C					
Min. storage temperature	-40 °C					
Max. storage temperature	85 °C					

Installation

Attribute	J4A1...	J4A6...	J4A7...	J4C6...CANopen	J4C6...SAE_J1939	J4D8...
Installation	from above					
Mounting type	screwed from above					

Connection

Attribute	J4A1...	J4A6...	J4A7...	J4C6...CANopen	J4C6...SAE_J1939	J4D8...
Connector type	Mini-Fit Jr.			-		Mini-Fit Jr.
Cable type	FLRY					
Cable length	0.3 m			-		0.3 m