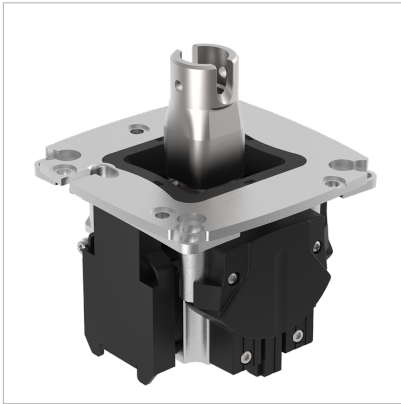




Heavy duty joystick J4 base

Robust, top mounted.

The Heavy duty joystick J4 is ideal for high-stress and high-frequency use thanks to its robust design. It has been designed for use in mobile machinery, such as in front loaders for controlling drives.

Technical specifications

- Robust, heavy duty joystick for top mounting
- Space-saving design
- High reliability and long service life thanks to contactless Hall-effect and reed technology
- CAN-bus connection (CANopen / SAE J1939), analogue output signal (current/voltage, also redundant) or switching output possible
- IP67 protection class of electronics, ideal for harsh environmental conditions
- Temperature range -40°C to +85°C
- Deflection $\pm 20^\circ$
- Single or multi axis
- Available with various actuation types, such as no-detent, detent, with friction brake or centre position interlock, any function can be optimally operated.
- Designed for extremely heavy loads (x-/y-axis: 2000 N, z-axis: 700 N at distance of 190 mm to pivot point each)

Technical drawing

IMAGE 1/6: J4 (EINBAU VON OBEN)

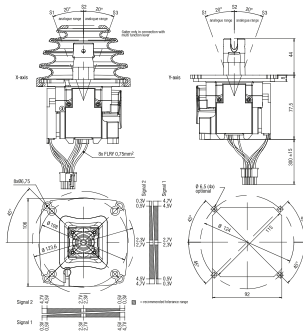


IMAGE 2/6: J4 EINBAUÖFFNUNG

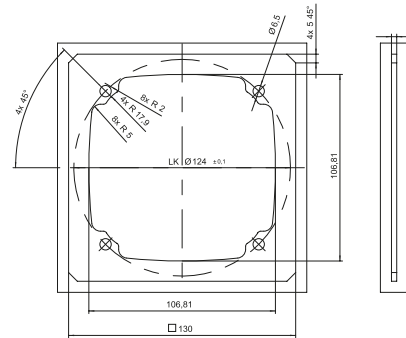


IMAGE 3/6: HALBREDUNDANT JEWEILS X UND Y ACHSE

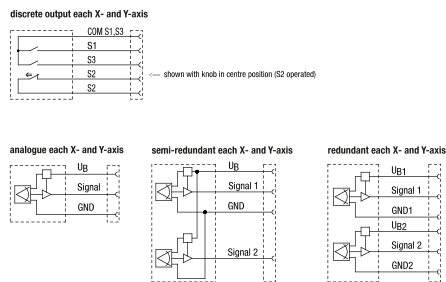


IMAGE 4/6: CAN

CAN

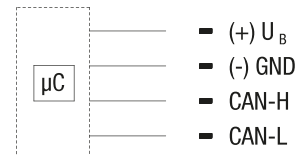


IMAGE 5/6: J4 JOYSTICK MIT MULTIFUNKTONGRIFF

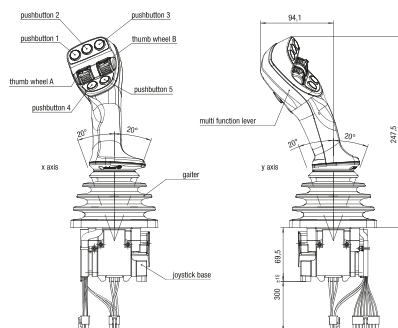
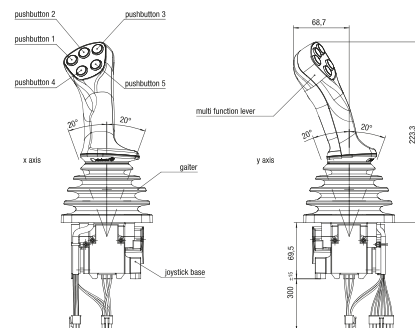


IMAGE 6/6: J4 JOYSTICK MIT MULTIFUNKTONGRIFF



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

Electrical data

Attribute	J4A1...	J4A6...	J4A7...	J4C6...CANopen	J4C6...SAE_J1939	J4D8...
Protocol		-		CANopen	J1939	-
Transmitting cycle		-		100 ms		-
Baud rate		-		250 kBit/s		-
Bus terminating resistor		-		no		-

Mechanical data

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

Material information

Attribute	J4A1...	J4A6...	J4A7...	J4C6...CANopen	J4C6...SAE_J1939	J4D8...
Housing material				Zinkdruckguss Z410		
Shaft material				Zinkdruckguss 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