



## Heavy duty joystick J5 base

### Robust, bottom mounted

Thanks to its robust design, the Heavy duty joystick J5 is ideal for high-stress and high-frequency use. It has been designed for use in mobile machinery, such as controlling drives in front loaders.

### Technical specifications

- Robust joystick for installation from above or below
- 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/SAE J1939) or with switching output
- IP67 protection class of electronics, ideal for harsh environmental conditions
- Deflection  $\pm 25^\circ$
- Available with various actuation types: 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 190 mm lever length each)



## Electrical data

| Attribute                                     | J5A1...                        | J5A6...    | J5A7... | J5D8... |
|-----------------------------------------------|--------------------------------|------------|---------|---------|
| 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 | -       |
| Operating voltage max.                        | 30 V DC                        | 5.5 V DC   | 30 V DC | 48 V DC |
| Current consumption                           | max. 18 mA                     | max. 15 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    |

## Mechanical data

| Attribute                                   | J5A1...             | J5A6... | J5A7... | J5D8... |
|---------------------------------------------|---------------------|---------|---------|---------|
| Max. lever load with specified lever length | 2000 N bei 190 mm N |         |         |         |
| Deflection                                  | ± 25 °              |         |         |         |
| Service life, mechanical (Cycles)           | 2000000             |         |         |         |

## Material information

| Attribute        | J5A1...            | J5A6... | J5A7... | J5D8... |
|------------------|--------------------|---------|---------|---------|
| Housing material | Zinkdruckguss Z410 |         |         |         |
| Shaft material   | Zinkdruckguss Z410 |         |         |         |
| Gaiter material  | CR                 |         |         |         |

## Environmental conditions

| Attribute                    | J5A1...           | J5A6... | J5A7... | J5D8... |
|------------------------------|-------------------|---------|---------|---------|
| 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     | J5A1...            | J5A6... | J5A7... | J5D8... |
|---------------|--------------------|---------|---------|---------|
| Installation  | from below         |         |         |         |
| Mounting type | screwed from above |         |         |         |

## Connection

| Attribute      | J5A1...      | J5A6... | J5A7... | J5D8... |
|----------------|--------------|---------|---------|---------|
| Connector type | Mini-Fit Jr. |         |         |         |
| Cable type     | FLRY         |         |         |         |
| Cable length   | 0.3 m        |         |         |         |