## STANDARD JOYSTICK MJ-4K

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The use of contactless Hall technology in this joystick is recommended, if only limited installation space is available or the application is subject to high vibration. The MJ-4K 2-axis joystick fulfils all these requirements. The trusted durability of the MJ-xx joystick series is also guaranteed with the MJ-4K as is the proven reliability.

The applications are vast and range from rehabilitation equipment and automation technology to construction equipment and marine applications.





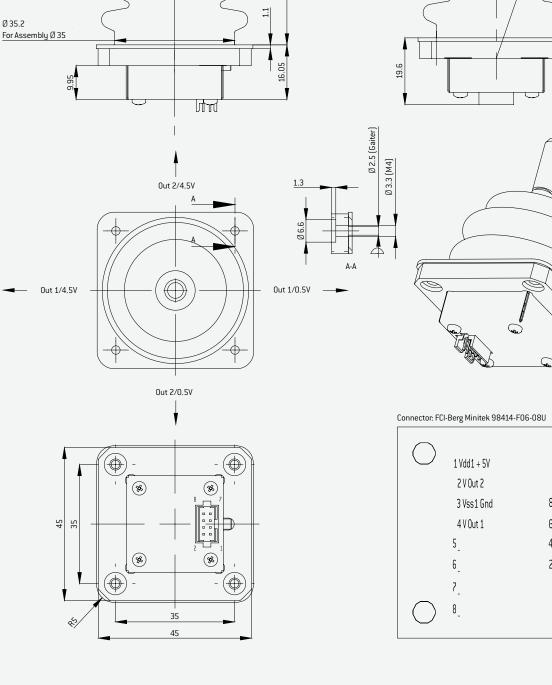
| Operational voltage5 V ± 0,5 VOutput signal0,5 4,5 VLinearity± 3%Deflection angle, el.± 19°Power consumption< 20 mA   | ELECTRICAL SPECIFICATIONS |                           |
|---|---------------------------|---------------------------|
| Linearity       ± 3%         Deflection angle, el.       ± 19°         Power consumption       < 20 mA         Max. output current       ± 8 mA         Resolution       16 bit         Option       Redundant output signal         Electrostatic discharge       BS EN 61000-4-2         Radio interference       BS EN 61000-4-3         High-frequency<br>interfering signals       BS EN 61000-4-4                                   | Operational voltage       | $5V\pm0,5V$               |
| Deflection angle, el.       ± 19°         Power consumption       < 20 mA         Max. output current       ± 8 mA         Resolution       16 bit         Option       Redundant output signal         Electrostatic discharge       BS EN 61000-4-2         Radio interference       BS EN 61000-4-3         High-frequency<br>interfering signals       BS EN 61000-4-4         Conducted interfering<br>signals       BS EN 61000-4-6 | Output signal             | 0,54,5V                   |
| Power consumption     < 20 mA       Max. output current     ± 8 mA       Resolution     16 bit       Option     Redundant output signal       Electrostatic discharge     BS EN 61000-4-2       Radio interference     BS EN 61000-4-3       High-frequency<br>interfering signals     BS EN 61000-4-4       Conducted interfering<br>signals     BS EN 61000-4-6   | Linearity                 | ± 3%                      |
| Max. output current       ± 8 mA         Resolution       16 bit         Option       Redundant output signal         Electrostatic discharge       BS EN 61000-4-2         Radio interference       BS EN 61000-4-3         High-frequency<br>interfering signals       BS EN 61000-4-4         Conducted interfering<br>signals       BS EN 61000-4-6   | Deflection angle, el.     | $\pm$ 19°                 |
| Resolution       16 bit         Option       Redundant output signal         Electrostatic discharge       BS EN 61000-4-2         Radio interference       BS EN 61000-4-3         High-frequency<br>interfering signals       BS EN 61000-4-4         Conducted interfering<br>signals       BS EN 61000-4-6  | Power consumption         | < 20 mA                   |
| Option       Redundant output signal         Electrostatic discharge       BS EN 61000-4-2         Radio interference       BS EN 61000-4-3         High-frequency<br>interfering signals       BS EN 61000-4-4         Conducted interfering<br>signals       BS EN 61000-4-6  | Max. output current       | $\pm$ 8 mA                |
| Electrostatic discharge       BS EN 61000-4-2         Radio interference       BS EN 61000-4-3         High-frequency<br>interfering signals       BS EN 61000-4-4         Conducted interfering<br>signals       BS EN 61000-4-6   | Resolution                | 16 bit                    |
| Radio interference     BS EN 61000-4-3       High-frequency<br>interfering signals     BS EN 61000-4-4       Conducted interfering<br>signals     BS EN 61000-4-6   | Option                    | Redundant output signal   |
| High-frequency<br>interfering signals     BS EN 61000-4-4       Conducted interfering<br>signals     BS EN 61000-4-6  | Electrostatic discharge   | BS EN 61000-4-2           |
| interfering signals BS EN 61000-4-4 Conducted interfering signals BS EN 61000-4-6   | Radio interference        | BS EN 61000-4-3           |
| signals   |                           | BS EN 61000-4-4           |
| Radiated emission EN 55016-2-3:2010+A1:2010   |                           | BS EN 61000-4-6           |
|   | Radiated emission         | EN 55016-2-3:2010+A1:2010 |

Specifications are subject to change without notice. \* Other values on request.

| MECHANICAL SPECIFICATIONS                   | S                      |
|---|------------------------|
| Service life                                | 5 million cycles       |
| Deflection angle, mech.                     | ± 19°                  |
| Operating force                             | 3,5 N typically *      |
| Gate shape                                  | Circular               |
| Centre position tolerance                   | ± 1°                   |
| Impact strength                             | 100 N                  |
| ELECTRICAL CONNECTION                       |                        |
|   | FCI Minitek 98414      |
| AMBIENT CONDITIONS                          |                        |
| Storage temperature                         | −40°C+85°C             |
| Operating temperature                       | −2570°C (opt. −4085°C) |
| Protection class<br>(above mounting flange) | IP 65                  |
| MATERIALS                                   |                        |
| Basa  | Aluminium              |

| Base    | Aluminium               |
|---------|-------------------------|
| Bearing | Stainless steel/plastic |

MJ-4K Type MJ-4K XY: Hall 0.5...4.5V Item number E060200408 (2-axis)



 $0.7^{+0.1}_{+0.05}$ 

[22]

[51.4]

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DRAWINGS FOR MJ-4K

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<u>Ø6.35</u>

Ø 5

19° Round Gate

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