For many tasks in the field of automation technology, it is necessary to recognize the motional processes in pneumatic and hydraulic cylinders and to detect the position of the piston with precision. For this, magnetic cylinder sensors are used.


## TECHNICAL DATA

| Harsh environmental conditions |  | YES |  |
| :---: | :---: | :---: | :---: |
| Metallic sensor surface |  | NO |  |
| Oil and cooling lubricants |  | YES |  |
| Ambient temperature ( $\mathrm{min} / \mathrm{max}$ ) |  | $-25^{\circ} \mathrm{C} / 75^{\circ} \mathrm{C}$ |  |
| Degree of protection (IP) |  | IP67 |  |
| Housing design |  | Cylinder plain |  |
| Housing material |  | Stainless steel |  |
| Increased ambient temperatures $>80^{\circ} \mathrm{C}$ |  | NO |  |
| Metal housing |  | YES |  |
| Mounting access, cylinder groove |  | From the top |  |
| Sensor diameter |  | 9 mm |  |
| Sensor length |  | 29 mm |  |
| Sensor surface position |  | Centre of the device |  |
| Strong vibration / motion |  | YES |  |
| Cross/short circuit identification possible |  | NO |  |
| Hysteresis |  | 1 mm |  |
| Low sensitivity |  | NO |  |
| Low switching hysteresis |  | YES |  |
| Max. output current |  | 150 mA |  |
| No-load current |  | 15 mA |  |
| Number of pins |  | 3 |  |
| Operating voltage (min/max) |  | $10 \mathrm{~V} / 30 \mathrm{~V}$ |  |
| Rated supply voltage at DC ( $\mathrm{min} / \mathrm{max}$ ) |  | $10 \mathrm{~V} / 30 \mathrm{~V}$ |  |
| Reed contact |  | NO |  |
| Relative repeat accuracy |  | 0.1 mm |  |
| Reverse polarity protection |  | YES |  |
| Sensor surface (active) |  | Middle area |  |
| Setting via teach-in |  | NO |  |
| Short-circuit-proof |  | YES |  |
| Suitable for safety functions |  | NO |  |
| Switching frequency |  | 1000 Hz |  |
| ipf electronic gmbh Kalver Straße 25-27 <br> 58515 Lüdenscheid - Germany | $\begin{aligned} & \text { Tel + 49 } 23519355-0 \\ & \text { Fax +49 } 23519365-19 \end{aligned}$ | www.ipf-electronic.com info@ipf-electronic.com | Subject to alteration Version: May 2017 |

MZR90179
pneumatic cylinder sensors

TECHNICAL DATA

| Two switching points | NO |
| :--- | :--- |
| Type of actuation | Magnet |
| Type of electrical connection | Connector M8 |
| Type of switching function | Normally open contact |
| Type of switching output | PNP |
| Voltage drop | 2 V |
| Voltage type | DC |
| With LED display | YES |
| With monitoring function of downstream devices | NO |
| Cylinder sensors | YES |
| Short travel path | NO |

CONNECTION


Colors: $1=\mathrm{BN}$ (brown), $3=\mathrm{BU}$ (blue), $4=\mathrm{BK}$ (black)
Functions: $1=L+, 3=L-, 4=$ PNP NO

DIMENSIONAL DRAWING


