

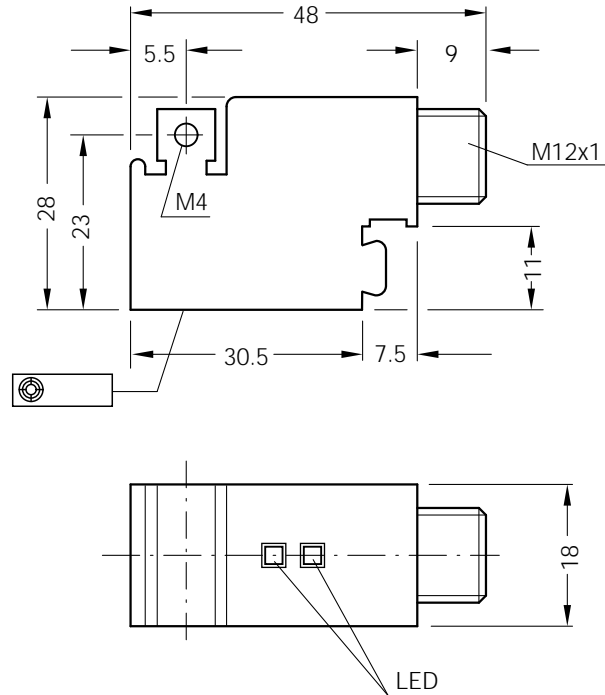


Magnetic cylinder sensors

MZ U2 series

DC 3-wire, weld immune version

Dimensions in mm

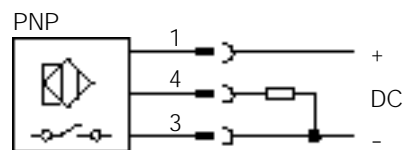


Features

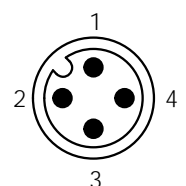


- ▶ Non-contact detection of piston position in pneumatic cylinders in weld field environments
- ▶ Weld immune in all welding applications (AC, DC and medium frequency)
- ▶ Response sensitivity of interference field detector ≥ 2 mT
- ▶ The sensors locks the output during the welding process. When the welding process stops, the sensor updates the output accordingly
- ▶ Flexible mounting technique for different cylinder styles
- ▶ Solid metal housing in die-cast zinc, optional with teflon coating
- ▶ Actuating speed < 1 m/s
- ▶ 2 LED's
 Status indicator: yellow
 Function indicator: green

Connection diagram



Contact	Assignment
1	+ V DC
4	NO
3	- V DC
2	free



Electrical and mechanical data

Operating voltage U_b	10 ... 30 V DC	Wire-break protection	yes
Ripple U_{pp}	$\leq 10\%$ of U_b	Short-circuit protection (pulsed)	yes
Voltage drop U_d	≤ 2.0 V at I_a max.	Reverse polarity protection	yes
Power consumption (without load)	≤ 18 mA (unattenuated) ≤ 32 mA (attenuated)	Power-up pulse suppression	yes
Continuous current I_a	≤ 300 mA	Enclosure rating to DIN 40050	IP 67
Time delay before availability t_v	≤ 20 ms	Shock and vibration stress	30 g, 11 ms 10 to 55 Hz, 1 mm
Hysteresis H	≤ 1.5 mm	Ambient temperature T_a	- 25 ... + 75 °C
Repeatability R (U_b and T_a constant)	≤ 0.1 mm	Housing material	Die-cast zinc, optional with teflon coating
EMC	to EN 60 947-5-2		

Selection table

Response sensitivity in mT	Sensing face	Switching output	Output function	Switching frequency f in Hz	Connection	Type	Order number
3		PNP		40	Connector M12x1 mm	MZU2-03VPS-DCM	1017450
3		PNP		40	Connector M12x1 mm	MZU2-03VPS-TCM*	1017451

* with teflon coating

Accessories

Mounting clamp for pneumatic cylinder sensor MZU2

Mounting clamp: US1
Material: die-cast zinc
Order-No.: 4030922

Mounting clamp: US1T
Material: die-cast zinc with teflon coating
Order-No.: 4031632

suitable for the following cylinders:

Tie-rod cylinder:
tie-rod diameter $\varnothing 4 \dots 20$ mm

