

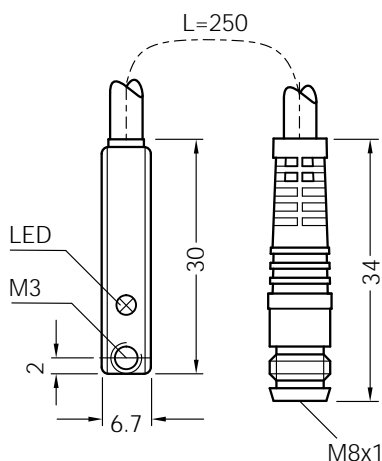
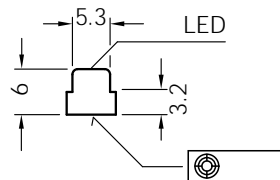


Magnetic cylinder sensors

MZ F1 series

DC 3-wire, for T-slot

Dimensions in mm



Features

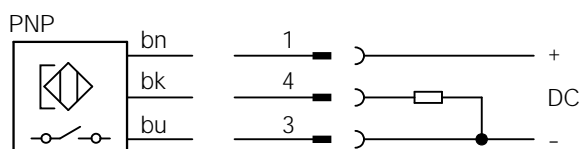


- ▶ Non-contact determination of piston position in pneumatic cylinders
- ▶ For T-slot
- ▶ High response sensitivity $\geq 3 \text{ mT}$
- ▶ Frontal sensing face
- ▶ No secondary switching ranges
- ▶ High repeat accuracy
- ▶ Actuating speed $\leq 5 \text{ m/s}$
- ▶ PNP output
- ▶ Short-circuit protection (pulsed)
- ▶ Plastic housing with T-profile and clamping screw
- ▶ Connection cable or connector on cable
- ▶ Enclosure rating IP 67
- ▶ LED status indicator
- ▶ Magneto-resistive element

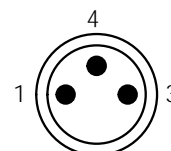
Accessories

Round connectors

Connection diagram







Wire colour	Contact	Assignment
bn brown	1	+ V DC
bk black	4	NO
bu blue	3	- V DC



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 V at I_a max.	Reverse polarity protection	yes
Power consumption (without load)	≤ 10 mA	Power-up pulse suppression	yes
Continuous current I_a	≤ 150 mA	Enclosure rating to DIN 40050	IP 67
Time delay before availability t_v	≤ 2 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)	≤ 0.2 mm	Housing material	Plastic
EMC	to EN 60 947-5-2	Connection cable	PUR-PVC, 3 x 0.25 mm ²
		Connection cable w. M8x1 mm	PUR, 3 x 0.25 mm ²

Selection table

Response sensitivity in mT	Sensing face	Switching output	Output function	Switching frequency f in Hz	Connection	Type	Order number
3		PNP		5000	Cable 2 m	MZF1-03VPS-KU0	7900596
3		PNP		5000	Cable with M8 x 1 mm	MZF1-03VPS-KP0	7900597

Series is available as reed switch on request.