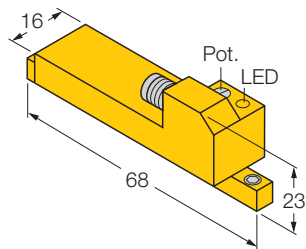
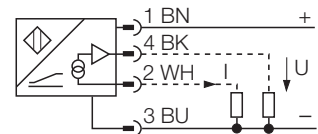


Magnet-inductive linear position sensor for analogue monitoring of pneumatic cylinders WiM40-NTL68-LiU5X-V1141



- rectangular, height 23 mm
- plastic, PBT-GF30-V0
- for direct mounting on pneumatic T-groove cylinders
- analogue output (current and voltage)
- Analogue travel distance measurement on pneumatic cylinders
- measuring range indication via LED chain
- hardly affected by external magnetic fields
- measuring range changes depending on the magnetic field
- 4-wire, 15...30 VDC
- connector, M8 x 1

Wiring diagram

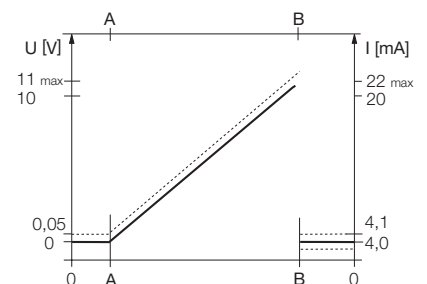


Function principles

Magnet-inductive linear position sensors with analogue output provide a signal that is proportional to the position of the piston and suited to accomplish simple control tasks. They feature an excellent repeat accuracy, resolution and linearity.

Due to their extremely robust design, they are especially suited to industrial applications. The excellent electro-magnetic capability (EMC) and a wide temperature range are the outstanding features of this sensor.

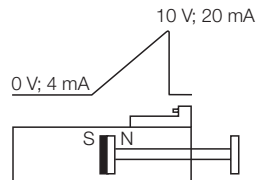
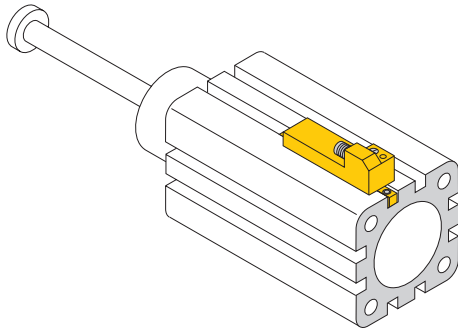
Measuring range



Type	WiM40-NTL68-LiU5X-V1141
Ident-No.	1536602
Measuring range [A...B]	14... 54 mm adjustable with potentiometer
Mounting mode	flush
Blind zone connector end	14 mm
Blind zone non-connector end	14 mm
Min. repeat accuracy	$\leq 0,5 \%$ of measuring range A - B
Reproducibility	$\leq 200 \mu\text{m}$
Linearity tolerance	$\leq 5 \%$ of final value
Max. relative temperature drift	$\leq \pm 0,06 \%$ / °C
Operating temperature	-25 ... + 70 °C
Rated operational voltage (DC) U_B	15... 30 VDC
Max. ripple	$\leq 10 \%$ U_{pp}
No-load current I_0	$\leq 23 \text{ mA}$
Rated insulation voltage	$\leq 0,5 \text{ kV}$
Output function	4-wire, analogue output
Short-circuit protection	yes
Wire breakage / reverse polarity protection	yes / complete
Voltage output	0... 10 V
Current output	4... 20 mA
Voltage output load resistance	$\geq 4,7 \text{ k}\Omega$
Current output load resistance	$\leq 0,4 \text{ k}\Omega$
Reading rate frequency	1000 Hz
Recovery time on output	$\leq 12 \text{ ms}$
Housing style	rectangular; NTL68
Dimensions	68 x 16 x 23 mm
Housing material	plastic, PBT-GF30-V0
Active face	plastic, PBT-GF30-V0
Wiring	connector, M8 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 x g (11 ms)
Degree of protection	IP67
In range indication	LED, yellow

Magnet-inductive linear position sensor for analogue monitoring of pneumatic cylinders WiM40-NTL68-LiU5X-V1141

Mounting instructions



The connector end of the sensor and the north pole of the magnet on the piston must point in the same direction. With all common pneumatic cylinders (e.g. Festo, SMC, Bosch) the north pole shows into the extension direction of the piston.

The sensitivity of the sensor on the magnet on the piston is adjustable via potentiometer.

Neighbouring magnets and moving ferritic metals may have an influence on the output signal.

Magnet-inductive linear position sensor for analogue monitoring of pneumatic cylinders WiM40-NTL68-LiU5X-V1141

Accessories

Typ	Ident-No.	Description	Dimension drawing
IM43-13-SR	7540041	limit value monitor; single channel; input 0/4...20 mA or 0/2...10 V; supply of 2- or 3-wire transmitters/sensors; limit value adjustment via teach button; three relay outputs with one normally open contact each; removeable terminal blocks; 27 mm wide; universal voltage supply 20...250 VUC; further limit value monitors are described in our "Interface Technology" catalogue.	