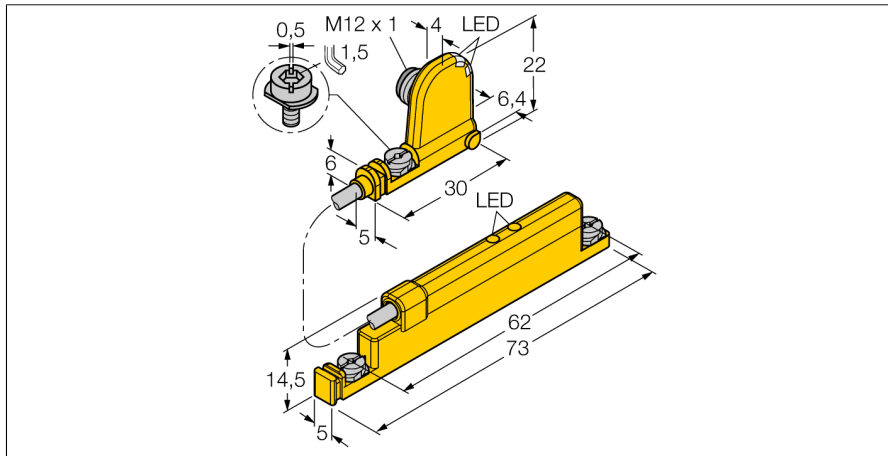


**Linear position sensor
for analog pneumatic cylinder monitoring
WIM45-UNTL-0,3-BIM-UNT-LUAP6X4-H1141**



- Plastic, PA12-GF30
- For direct mounting on pneumatic T-groove cylinders
- Magnetic field status displayed via two LEDs
- Measured value memory
- Hardly affected by external magnetic fields
- 4-wire, 15...30 VDC
- NO contact, PNP output
- Analog output
- 0...10 V
- Cable with male end M12 x 1

Type code WIM45-UNTL-0,3-BIM-UNT-LUAP6X4-H1141
Ident no. 1536623

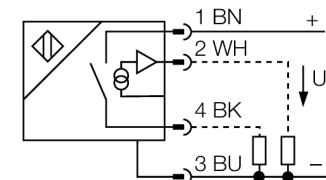
Measuring range [A...B] 45mm
Resolution 10 bit
Pass speed ≤ 10 m/s
Repeatability ≤ 0.1% of measuring range IA - BI
 ≤ with non-rotatable piston rod
Reproducibility ≤ 45 µm
Linearity deviation ≤ 1 %
Temperature drift ≤ ± 0.006 % / K
Hysteresis 3...15 %
Ambient temperature -25...+70 °C

Operating voltage 15...30VDC
Residual ripple ≤ 10 % U_s
DC rated operational current ≤ 150 mA
No-load current I₀ ≤ 23 mA
Rated insulation voltage ≤ 0.5 kV
Short-circuit protection yes
Wire breakage / Reverse polarity protection yes/ complete
Output function 4-wire, NO contact, PNP/analog output
Voltage output 0...10V
Load resistance voltage output ≥ 4.7 kΩ
Output recovery time ≤ 15 ms
Switching frequency 1 kHz

Design rectangular, UNTL
Housing material plastic, PA
Tightening torque fixing screw 0.4 Nm
Connection cable with connector, M12 x 1
Cable quality 3 mm, grey, Lif9Y-11Y, PUR m
 Suited for E-ChainSystems® acc. to manufacturers
 declaration H1063M
Cable cross section 3 x 0.14 mm²
Vibration resistance 55 Hz (1 mm)
Shock resistance 30 g (11 ms)
Protection class IP67

Power-on indication LED green
Switching state LED yellow
Display magnetic-field status 2x LED, yellow
Included in scope of supply cable clip

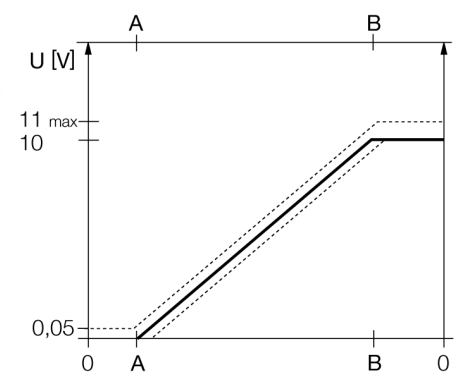
Wiring diagram



Functional principle

Magnetic inductive linear position sensors with analog output accomplish control tasks by providing a signal proportional to the position of the piston rod. The polarity of the magnet has no effect on the output signal. The outstanding features of these robust sensors are excellent repeatability, resolution and linearity, excellent electromagnetic capability and a broad temperature range.

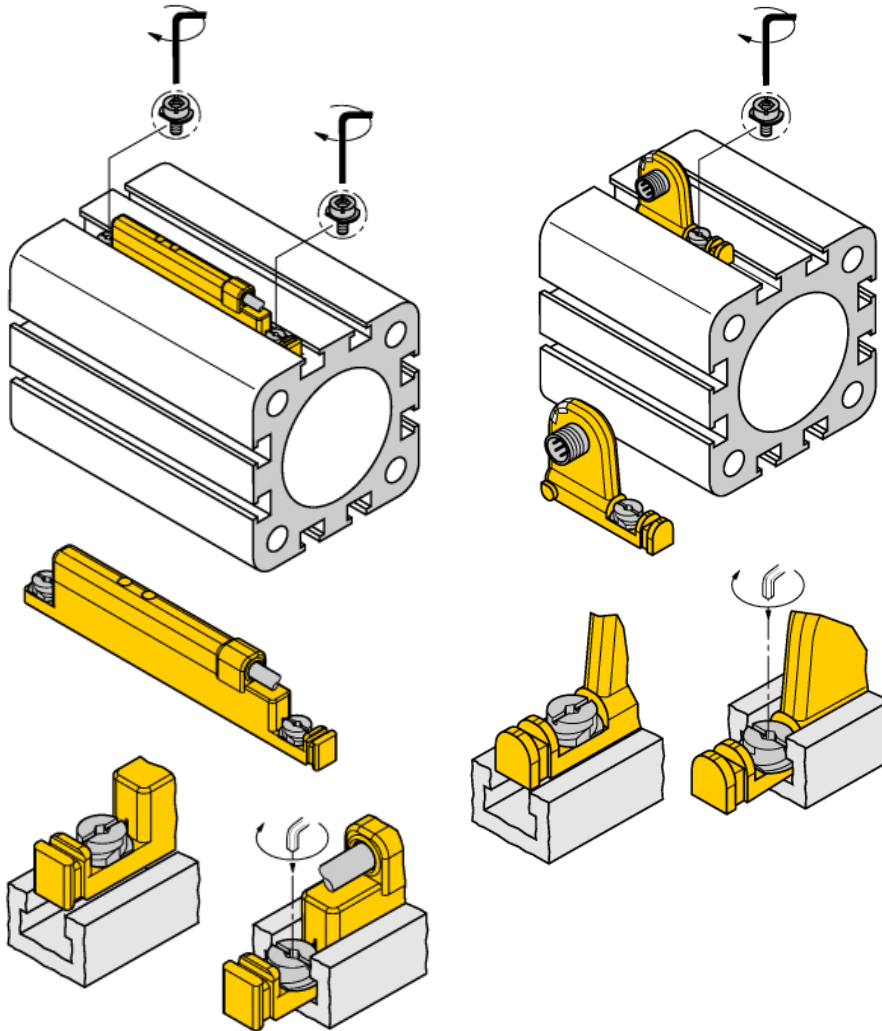
Characteristic



**Linear position sensor
for analog pneumatic cylinder monitoring
WIM45-UNTL-0,3-BIM-UNT-LUAP6X4-H1141**

Mounting instructions / Description

mounting instructions



The sensor is easily inserted in the groove from above thanks to the pre-fixation lip. The sensor is mounted as follows: Turn the screw clockwise. The sensor is pressed down and thus locked. A quarter turn of the screw with a standard screw driver or a 1.5 mm Allen key is enough for vibration resistant mounting. The allowed fixing torque of 0.4 Nm is sufficient for safe mounting without damaging the cylinder. Cable clips included in the scope of delivery enable smooth cable routing in the groove. Mounting accessories for other cylinder sizes have to be ordered separately.

LED function of analog devices:

If both LEDs are on, the magnet is in the measuring range of the sensor and the magnetic field has optional magnetizing force; accuracy and linearity of the output curve are within the specified range.

If only one LED is on, the magnet is in the measuring range but the magnetizing force is not ideal; the output characteristic may be outside the specified range.

If both LEDs are off, no magnet is in the measuring range of the sensor.