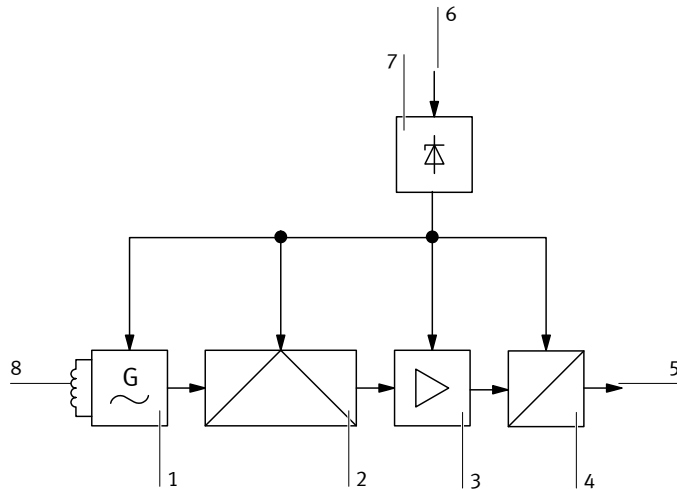
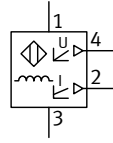


548644

Inductive proximity sensor with analogue output, M12



1: Oscillator; 2: Demodulator; 3: Amplifier; 4: Measuring transducer; 5: Output: Current or voltage signal; 6: External voltage; 7: Internal constant voltage source; 8: Coil with active zone

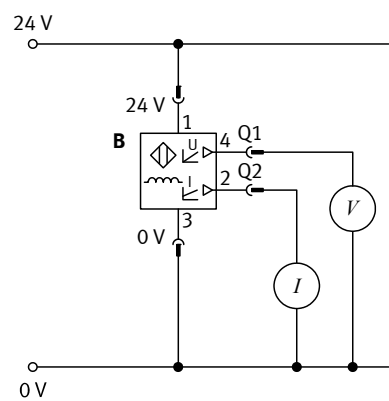
Design

The inductive proximity sensor with analogue output is fitted on a plastic bracket. The bracket can be rotated in increments of 15°. The electrical connections are inside a plastic housing. The electrical connection is made via safety sockets. The unit is mounted on the profile plate using the locking system with the blue lever (mounting version "A").

Function

The inductive proximity sensor with analogue output is fitted with an oscillator circuit which consists of a parallel resonance circuit with a coil, a capacitor and an amplifier. The ferrite cup core of the coil directs the electromagnetic field towards the outside.

If an electrically conductive material is brought within the range of the electromagnetic stray field, then eddy currents form in the material in accordance with the law of induction and dampen the oscillator vibration. Depending on the conductivity, the dimensions and the proximity of the conductive object, the vibration of the oscillator can be damped. If the material and the workpiece shape remain the same, the output is, within a certain range, proportional to the distance of the workpiece from the sensor.



Connection of the inductive proximity sensor with analogue output

Technical data

General information	
Size	M12 x 1
Sensing range	0 – 6 mm
Standard calibrating plate	18 mm x 18 mm x 1 mm
Repetition accuracy	≤ 5 % of actual switching distance
Type of mounting	Semi-flush
Swivel range	210°
Subject to change	

Electrical components	
Operating voltage	15 – 30V DC
Permissible residual ripple	≤ 20 %
Idle current	≤ 12 mA
Voltage output	0 – 10 V
Load current at voltage output	≤ 10 mA
Current output	4 – 20 mA
Max. load at current output	0.5 kΩ (V _{cc} = 15 V) / 1 kΩ (V _{cc} = 30 V)
Ambient temperature range	-25 – +70 °C
Protection class	IP67
Reverse polarity and short circuit protection	Integrated
Connection	Sockets for 4 mm safety plug
CE symbol	In compliance with EU-EMC directive
Subject to change	