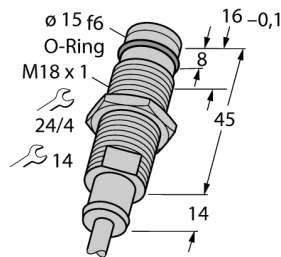
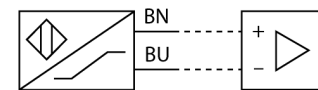


**Inductive sensor
for high pressures
BID2-G180-Y0/S212**



- Threaded barrel, M18 x 1
- Stainless steel, 1.4305
- Admissible pressure static/dynamic 500/350 bar
- DC 2-wire, nom. 8.2 VDC
- Output acc. to DIN EN 60947-5-6 (NAMUR)
- Cable connection

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.

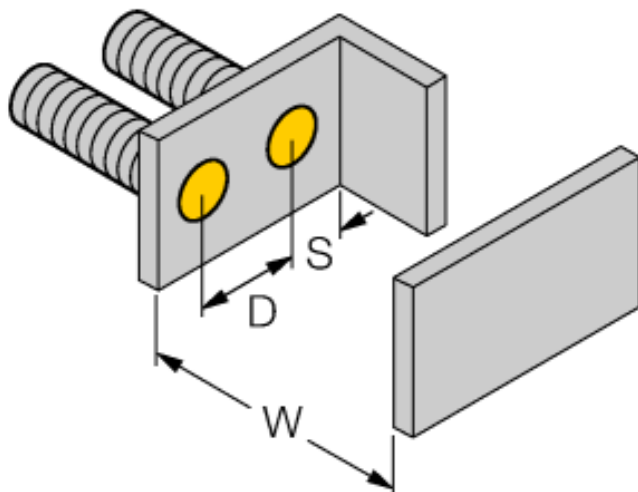
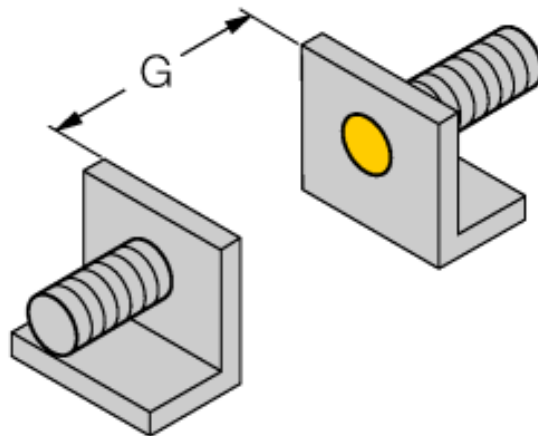
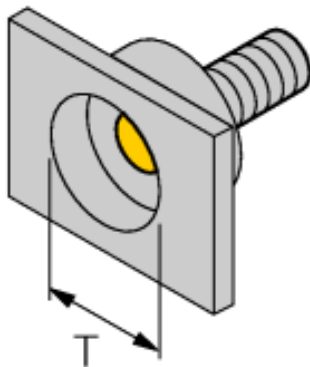
Pressure resistant inductive sensors withstand pressures of up to 500 bar which makes them perfectly suited for position control in hydraulic cylinders.

Type code	BID2-G180-Y0/S212
Ident no.	1088003
Rated operating distance Sn	2 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 2 % of full scale
Static pressure	≤ 500 bar
Dynamic pressure	≤ 350 bar
Admissible contact medium	electrically non-conductive
Temperature drift	10 %
Hysteresis	1...10 %
Ambient temperature	-25...+70 °C
Output function	2-wire, NAMUR
Switching frequency	2 kHz
Voltage	Nom. 8.2 VDC
Non-actuated current consumption	≥ 2.1 mA
Actuated current consumption	≤ 1.2 mA
Design	threaded barrel, M18 x 1
Dimensions	58 mm
Housing material	metal, V2A (1.4305)
Material active area	Plastic, PA
Max. tightening torque housing nut	25 Nm
Connection	cable
Cable quality	5.2 mm, blue, LifYY, PVC, 2 m
Cable cross section	2 x 0.34 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67

**Inductive sensor
for high pressures
BID2-G180-Y0/S212**

Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn

Diameter of the active area B \varnothing 18 mm



- In order to protect the coil connections integrated in the sensor head, it is required to ventilate the chamber of the oscillator coil.
- For this the employed non-conductive and neutral medium is filled into the cavity via the middle hole of the sensor's active face, using a thin cannula.

**Inductive sensor
for high pressures
BID2-G180-Y0/S212**

TURCK

Industrial
Automation

Accessories

Type code	Ident no.	Description	Dimension drawing
IM1-22EX-R	7541231	Isolating switching amplifier, dual-channel; 2 relay outputs NO; input NAMUR signal; selectable ON/OFF mode for wire-break and short-circuit monitoring; adjustable signal flow (NO/ NC mode); removable terminal blocks; 18 mm width; universal voltage supply unit	