

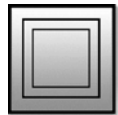
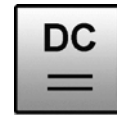
## IO12012F

Inductive sensors  
All-steel sensors



- / one-piece stainless steel housing
- / IO-Link
- / short-circuit and reverse polarity protection
- / M12-Connector

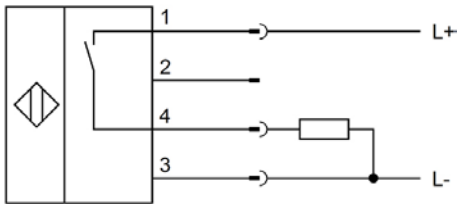
chip immune to iron, aluminum,  
stainless steel, brass, copper, titanium



### TECHNICAL DATA

mounting	non flush
switching distance	3mm
output signal	pnp, no
operating voltage	10 ... 30V DC
ripple	≤ 20%
current consumption (w/o load)	≤ 10mA
output current (max. load)	200mA
voltage drop (max. load)	≤ 2V DC
norm measuring plate	12mm x 12mm x 1mm, FE360
hysteresis	≤ 15%
repeat accuracy	0.2mm
correction factors (ST37 / Alu / Ms)	1.0 / 1.7 / 1.8
correction factors (Cu / VA: 1mm / VA: 2mm)	1.5 / 0 / 0
temperature drift	≤ 10%
switching frequency	≤ 400Hz
short-circuit protection	+
reverse polarity protection	+
display	0 ≤ s ≤ 0.8s <sub>r</sub> : LED yellow 0.8s <sub>r</sub> ≤ s ≤ s <sub>r</sub> : LED yellow blinking
dimensions	M12 x 1
length (thread / complete)	36mm / 60mm
housing material	V2A (1.4305)
max. tightening torque	20Nm
material thickness (active surface)	0.4mm
line length (max.)	300m
operating temperature	-25 ... +85°C
pressure resistance (active surface)	80bar
degree of protection (EN 60529)	IP67, IP69k
connection	M12-Connector
connection accessories	e.g. <b>VK200025</b>
mounting accessories (universal holder)	<b>AY000115</b>

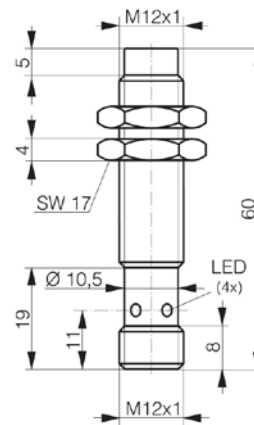
**Connection**



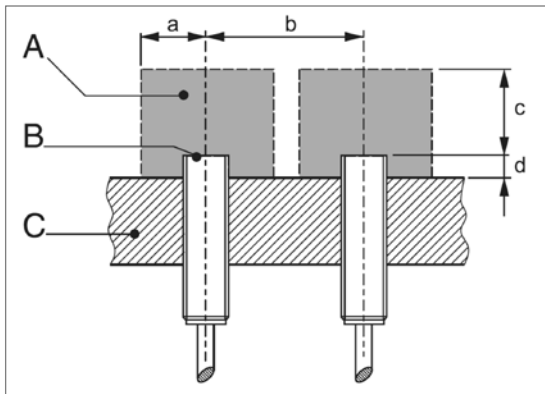
**Colors:** 1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black)

**Functions:** 1 = L+, 2 = n.c., 3 = L-, 4 = PNP NO

**Dimensional drawing**



**Installation conditions**



a	9mm
b	70mm
c	9mm
d	aluminum: 13mm steel: 15mm brass: 14mm stainless steel: 16mm
A	metal free zone
B	active surface
C	support

**SAFETY WARNINGS:**

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!  
Never use these articles in applications where the safety of a person depends on their functionality.