

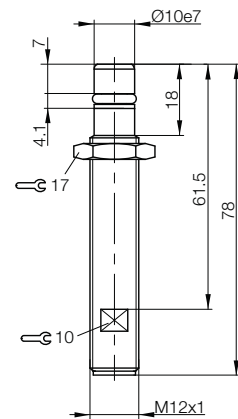
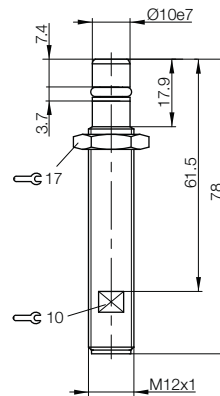
Inductive Sensors with Special Properties
High pressure rated sensors, EX protected
M12x1

up to 500 bar
EX



Size	M12x1	M12x1
Installation type (pay attention to the note in the Basic Information chapter)	Flush	Flush
Rated switching distance s_n	1.5 mm	1.5 mm
Assured switching distance s_a	0...1.2 mm	0...1.2 mm
Pressure range	Oil-pressure resistant up to 350 bar	Oil pressure resistant up to 500 bar
PNP, NO	Ordering code	BHS0031
	Part number	BES 516-300-S321-NEX-S4-D
Supply voltage U_s	10...30 V DC	10...30 V DC
Voltage drop U_d at I_e max.	1.5 V	2 V
Rated insulation voltage U_i	75 V DC	75 V DC
Rated operating current I_e	200 mA	200 mA
Output resistance R_a	33 k Ω	150 k Ω
Polarity reversal protected/transposition protected/short-circuit protected	Yes/Yes/Yes	Yes/Yes/Yes
Ambient temperature T_a	-25...+80 °C	-25...+90 °C
Switching frequency f max.	1 kHz	2 kHz
Degree of protection as per IEC 60529	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
Approvals	CE	CE
Material	Housing Stainless steel	Housing Stainless steel
	Sensing surface EP	Sensing surface EP
Sealing ring material/size/replacement part number	FPM 70/5.85x2.4/636594	N70B200V/5.3x2.4/631753
Supporting ring material/size/replacement part number	PTFE/5.3x2.4/705918	PTFE/5.3x2.4/705918
Connection	M12 connector, 4-pin	M12 connector, 4-pin

Wiring diagrams, see page 958.



Sensors with ATEX approval Category 3G

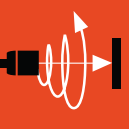
Devices in this category are designed for use in areas where explosive atmospheres occur infrequently (Zone 2).

Before design, installation and startup, please read the user's guide found at www.balluff.com.

Inductive Sensors with Special Properties

High pressure rated sensors, Ex protected

M12x1, M18x1



M12x1	M12x1	M12x1	M18x1
Flush	Flush	Flush	Flush
1.5 mm	1.5 mm	1.5 mm	1.5 mm
0...1.2 mm	0...1.2 mm	0...1.2 mm	0...1.2 mm
Oil pressure resistant up to 500 bar	Oil pressure resistant up to 500 bar	Oil pressure resistant up to 500 bar	Oil pressure resistant up to 500 bar
BHS002W	BHS001K	BHS005P	BHS004H
BES 516-300-S249-NEX-S4-D	BES 516-300-S135-NEX-S4-D	BHS B135V-PSD15-NEX-S04	BES 516-300-S308-NEX-S4-D
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
2 V	1.5 V	2.5 V	2 V
75 V DC	75 V DC	75 V DC	75 V DC
200 mA	200 mA	200 mA	200 mA
150 kΩ	33 kΩ	33 kΩ	150 kΩ
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
-25...+80 °C	-25...+80 °C	-25...+120 °C*	-25...+80 °C
2 kHz	1 kHz	400 Hz	2 kHz
IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
CE	CE	CE	CE
Stainless steel	Stainless steel	Stainless steel	Stainless steel
EP	EP	Ceramic	EP
N70B200V/5.3x2.4/631753	FPM 70/5.85x2.4/636594	FPM 80/6.75x1.78/149621	NBR 60-80/12.42x1.78/642828
PTFE/5.3x2.4/705918	PTFE/5.3x2.4/705918	PTFE/10x7.0x1.8/150229	PTFE/15x12.2x0.7/642827
M12 connector, 4-pin	M12 connector, 4-pin	M12 connector, 4-pin	M12 connector, 4-pin

Inductive Sensors

Global DC 3-wire

DC 3-/4-wire

DC 2-wire

AC/DC 2-wire

AC 2-wire

Special Properties

High-pressure Resistant Sensors

Ex Sensors

Steelface Sensors

High Temperature Rated Sensors

Full PTFE Sensor

Sensors for the Food Industry

Factor 1 Sensors

Weld and Magnetic Field Immune Sensors

Diagnostics Sensors

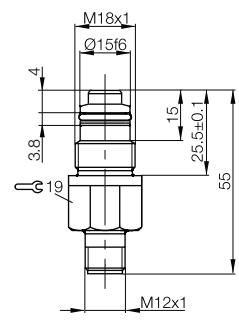
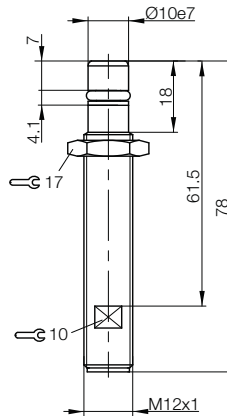
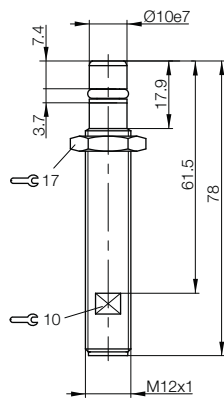
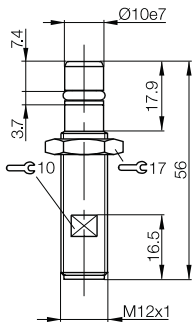
Large Designs

Ring Sensors

Hose Sensors

Analogue Distance Measurement

Accessories



*Current reduction as a function of ambient temperature range

