AC series

Ø 4 mm cylindrical
miniaturized inductive sensors

features

- **Smooth stainless steel housing**
- **Ø4 mm diameter**
- **Yellow output LED 360° visible**
- **Availabe 2 m PVC cable models or M8 connector models**
- **IP 67 protection degree**



web contents

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- **Catalogue / Manuals**

code description(*)

AC 1 / A P - 1 A 8F

series	AC	Inductive sensor Ø4 mm
housing	1	Miniaturized housing
	6	Miniaturized short housing
output state	A	NO output state
	C	NC output state
output logic	P	PNP output
	N	NPN output
distance	1	Standard distance shielded 0.8 mm
	3	Long distance shielded 1.5 mm
connect.	A	Cable exit
	F	M8 connector exit
special models	8F	Models with cable in PUR

Models with plug or cable exit in PUR ⟶ certification c UL us

Models with cable exit in PVC ⟶ certification UL

(*) ATEX models available, contact our Sales Dept. for further information.

available models

diameter	installation	distance	plug	distance (mm)	PNP/NO	NPN/NO	PNP/NC	NPN/NC
Ø 4	shielded	standard	cable	0,8	AC1/AP-1A	AC1/AN-1A	AC1/CP-1A	AC1/CN-1A
					AC6/AP-1A	AC6/AN-1A	AC6/CP-1A	AC6/CN-1A
			M8		AC1/AP-1F	AC1/AN-1F	AC1/CP-1F	AC1/CN-1F
		long distance	cable	1,5	AC1/AP-3A	AC1/AN-3A	AC1/CP-3A	AC1/CN-3A
					AC6/AP-3A	AC6/AN-3A	AC6/CP-3A	AC6/CN-3A
			M8		AC1/AP-3F	AC1/AN-3F	AC1/CP-3F	AC1/CN-3F

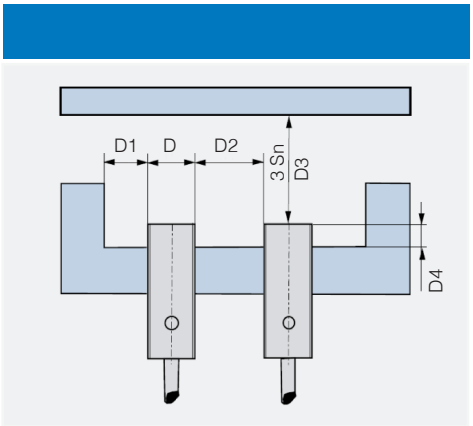
technical specification

	AC*/**-1*	AC*/**-3*
		
nominal sensing distance Sn	0.8 mm	1.5 mm
working distance	0...0.65 mm	0...1.21 mm
hysteresis	1...20%	
standard target	4 x 4 mm	4.5 x 4.5 mm
repeatibility	5% @UB=20...30 V; Ta = 23°C ±5°C	
operating voltage	10...30 Vdc	
output type	NPN or PNP - NO or NC	
ripple	≤ 10%	
output current	≤ 100 mA	
output voltage drop	≤ 1.5 V @ 100 mA	
no-load supply current	≤ 10 mA	
leakage current	≤ 10 µA	
switching frequency	5 kHz	
power on delay	≤ 50 ms	
temperature range	-25...+70 °C	
temperature drift	≤ 10%	
power supply protections	polarity reversal	
output protection	short circut (auto reset), overvoltage pulses	
EMC	in conformity with the EMC Directive according to IEC 60947-5-2	
shock and vibration	IEC 60947-5-2	
protection degree	IP67	
housing material	stainless steel AISI 303	
active head material	PBT	
reduction factor	see table	
LEDs	on (yellow LED)	
weight	4g M8 connector / 30 g cable	

correction factors

model	FE 360	copper	aluminium	brass	stainless steel
AC1/**-1*	1	0.28 ± 10%	0.21 ± 10%	0.32 ± 10%	0.63 ± 10%
AC1/**-3*		0.29 ± 10%	0.23 ± 10%	0.31 ± 10%	0.66 ± 10%

installation

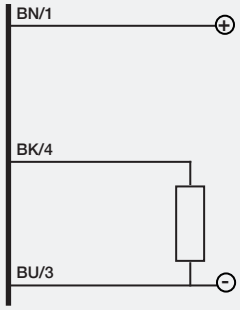


model	D4	D1	D2	D3
AC1/**-1*	≥ 2 mm (1)	≥ 4 mm	≥ 8 mm	≥ 2.4 mm
AC1/**-3*	≥ 3 mm (2)	≥ 4 mm	≥ 8 mm	≥ 4.5 mm

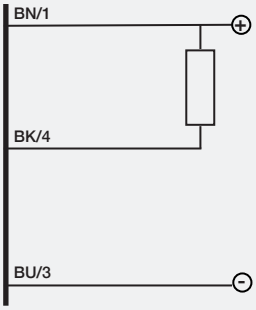
(1) ≥ 3 mm without ferro-magnetic material
(2) ≥ 4 mm without ferro-magnetic material

electrical diagrams of connections

PNP



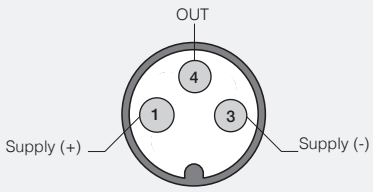
NPN



BN	brown
BU	blue
BK	black
WH	white

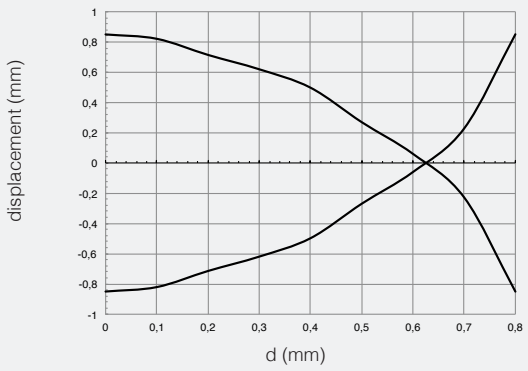
plug

M8

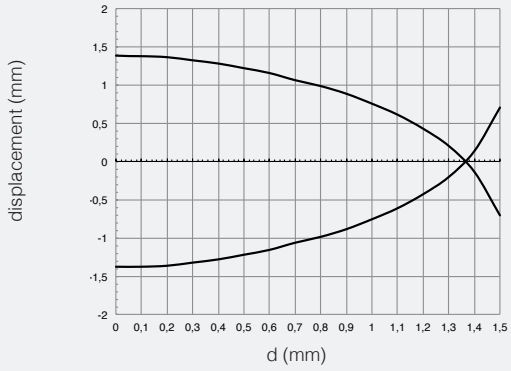


response diagrams

AC*/**-1* parallel displacement

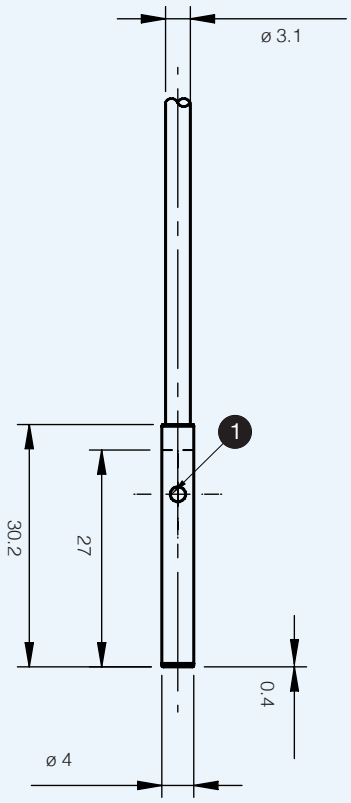


AC*/**-3* parallel displacement

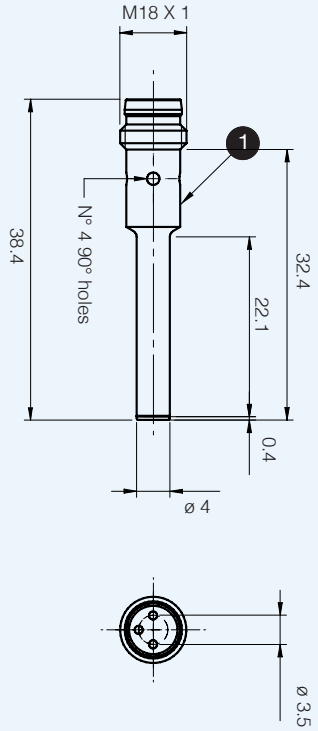


dimensions (mm)

AC1/**-*A

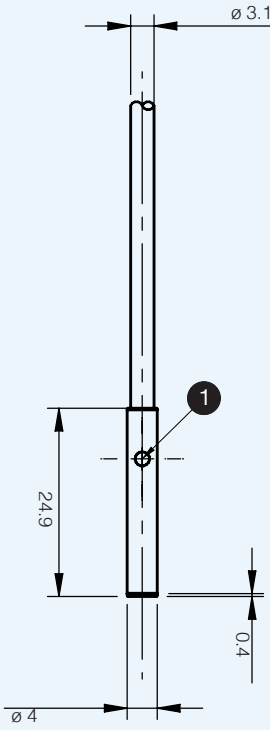


AC1/**-*F



1 LED

AC6/**-*A



1 LED