



Micro Detectors

Italian Sensors Technology



Cylindrical inductive sensor
miniaturized M5 AD1



Proximity Sensors
Catalogue

Cod. CAT3EAD1373701

Datasheet - AD1 - english - Ed.01/2014





Products

inductive
miniaturized

Series AD1

inductive miniaturized



AD1 download area

www.microdetectors.com<http://www.microdetectors.com/ita/prodotti/dettaglioifamiglia.aspx?idfamiglia=37>

market sectors and applications

- plastic industry
- robot industry
- wood industry
- textile industry
- automatic machines
- packaging industry
- electronic components production
- printing industry
- sorting mail machine



features

Extremely reduced models: M5 x 30 mm (cable) / 38 mm (plug) lenght

Operating voltage: 10 ÷ 30 Vcc

Output current: 100 mA

LED output indicator

Totally protected against electrical damages

Cable and M8 plug output

Stainless steel housing

approvals



protection degree

IP67





Products

inductive
miniaturized

cylindrical inductive sensors M5 AD1

Inductive proximity sensors AD1 have a stainless steel housing, M5 diameter. Yellow output LED 360° visible. Available 2 m PVC cable models or M8 connector models. The sensors have a **IP 67 protection degree**.

pack content

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further commercial and technical documents available

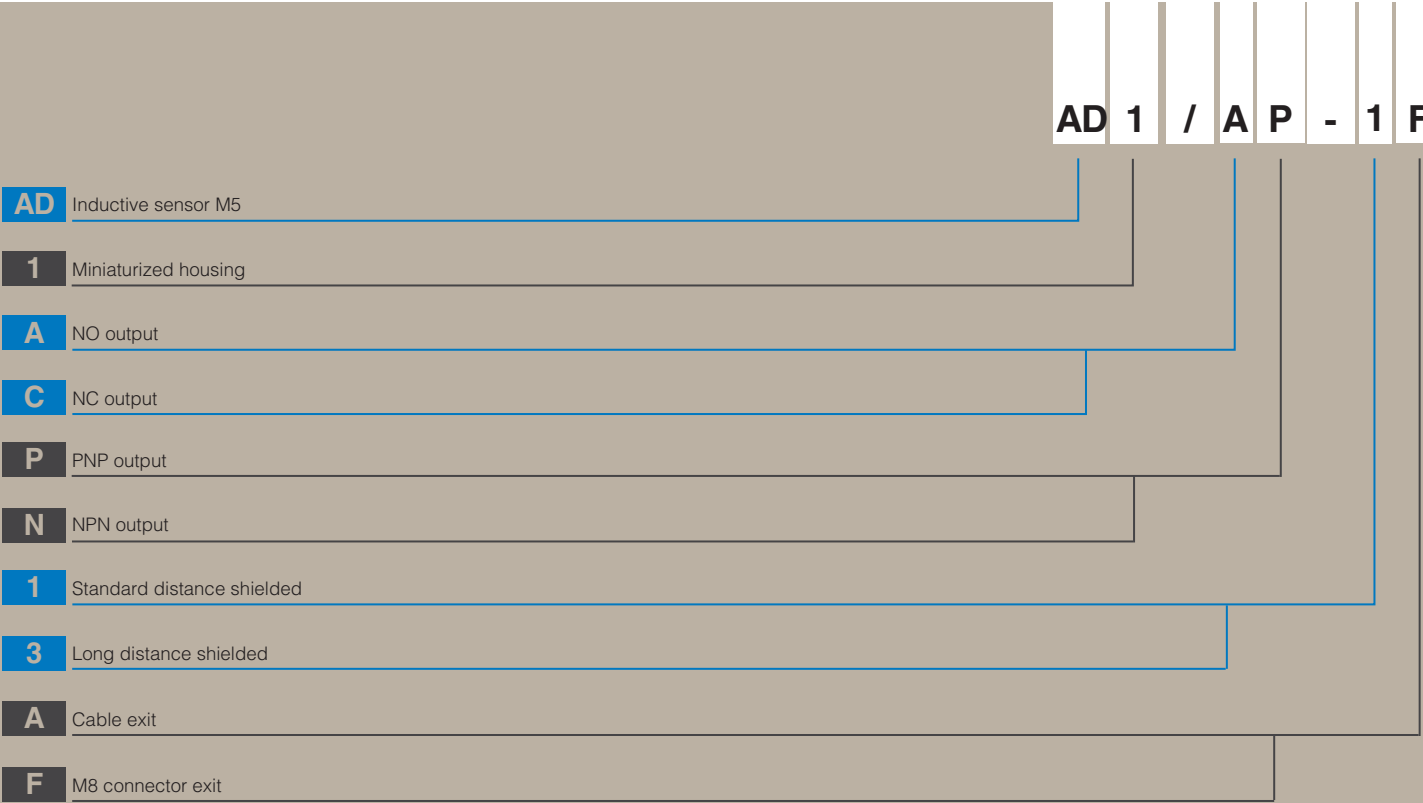
High resolution photos

customization already tested

-

minimum quantity that can be ordered

1 piece



available models

diameter	installation	distance	connection	distance	PNP - NO	NPN - NO	PNP - NC	NPN - NC
M5	shield	standard distance	cable	0,8 mm	AD1/AP-1A	AD1/AN-1A	AD1/CP-1A	AD1/CN-1A
			M8 connector		AD1/AP-1F	AD1/AN-1F	AD1/CP-1F	AD1/CN-1F
		long distance	cable	1,5 mm	AD1/AP-3A	AD1/AN-3A	AD1/CP-3A	AD1/CN-3A
			M8 connector		AD1/AP-3F	AD1/AN-3F	AD1/CP-3F	AD1/CN-3F

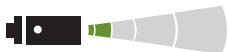


Products

inductive
miniaturized

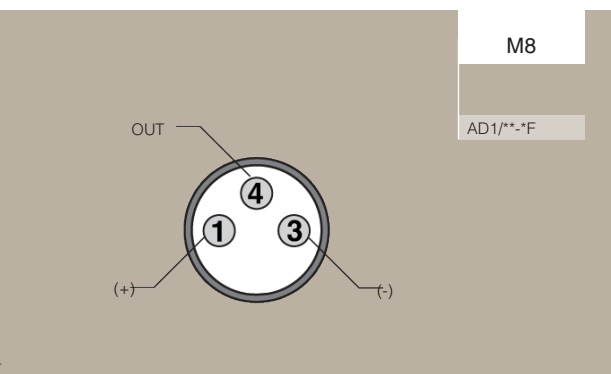
technical specifications

according to IEC EN 60947-5-2 and IEC EN 60947-5-7

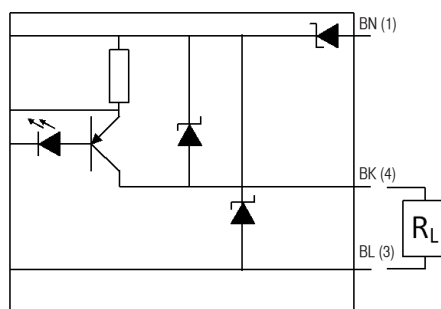
		
models	AD1/**-1*	AD1/**-3*
		
nominal sensing distance S_n	0,8 mm	1,5 mm
hysteresys	1 ÷ 20%	
standard target	5 x 5 mm	
repeat accuracy	5% @ $U_B = 20 \div 30 \text{ V}$; $T_a = 23^\circ\text{C} \pm 5^\circ\text{C}$	
operating voltage	10 ÷ 30 V _{cc}	
ripple	≤ 10 %	
output current	≤ 100 mA	
output voltage drop	≤ 1,5 V @ 100mA	
no-load current	≤ 10 mA	
leakage current	≤ 10 μA	
switching frequency	7 kHz	
time delay before availability	≤ 50 ms	
temperature range	-25°C ÷ +70°C	
thermal drift	≤ 10%	
supply electrical protection	polarity reversal	
output electrical protection	short circuit (auto reset), overvoltage pulses	
EMC compatibility	conforming to EC Directive 2004/108/EC requirements according to EN60947-5-2	
protection degree	IP67	
housing material	stainless steel AISI 303	
active head material	PBT	
reduction factor	see table	
LED indicators	on (yellow LED)	
weight	30 g (cable version); 4g (M8 connector version)	

BN	brown
BL	blue
BK	black

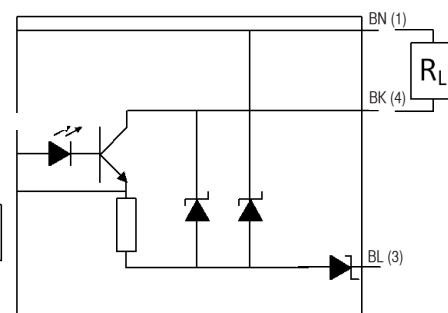
electrical diagrams of connections



PNP models

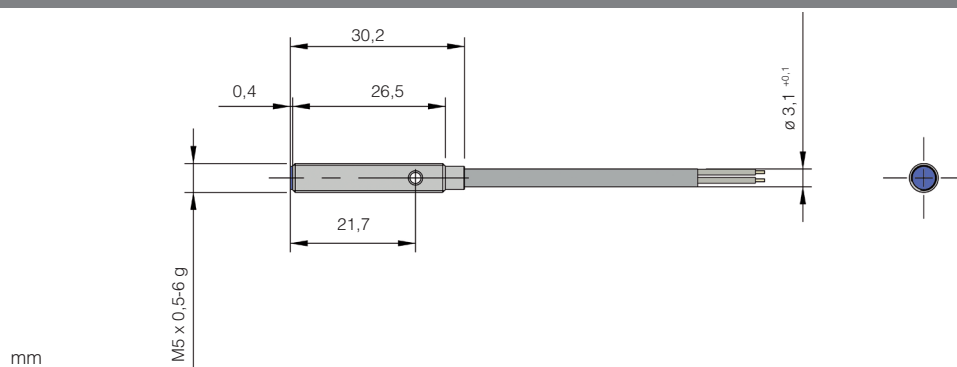


NPN models

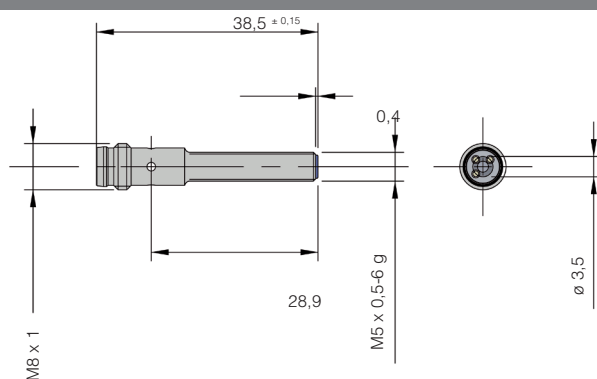


dimensions

AD1/**-*A



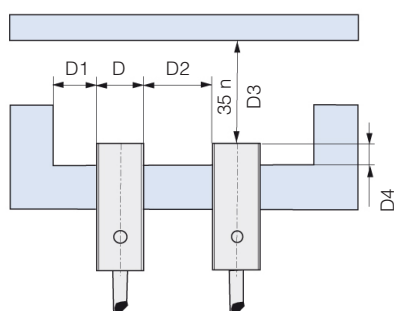
AD1/**-*F



correction factors

model	FE360	copper	aluminium	brass	stainless steel
AD1/xx-1x	1	0,32 ± 10%	0,26 ± 10%	0,35 ± 10%	0,66 ± 10%
AD1/xx-3x	1	0,33 ± 10%	0,27 ± 10%	0,34 ± 10%	0,66 ± 10%

installation



model	D4	D1	D2	D3
AD1/xx-1x	≥ 0 mm ⁽¹⁾	≥ 5 mm	≥ 5 mm	≥ 2,4 mm
AD1/xx-3x	≥ 1 mm ⁽²⁾	≥ 5 mm	≥ 10 mm	≥ 4,5 mm

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



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www.microdetectors.com