



Micro Detectors

Italian Sensors Technology



Miniaturized cylindrical inductive sensor M8 AES



Proximity Sensors
Catalogue

Cod. CAT3EAE1474301

Datasheet - AES - english - Ed.01/2014





Products

inductive
miniaturized

Series **AES**

inductive miniaturized



download area

- catalogues
- high resolution photos
- installation manuals

<http://www.microdetectors.com/ita/prodotti/dettaglioifamiglia.aspx?idfamiglia=32>



features

Miniaturized dimensions: M8 x 20 mm (cable) / 30 mm (plug) lenght

Operating voltage: 10 ÷ 30 Vcc

Output current: 100 mA

LED output indicator

Totally protected against electrical damages

Cable and plug M8 output

Stainless steel housing

approvals



protection degree

IP67





Products

inductive
miniaturized

cylindrical inductive sensors M8 AES

Inductive proximity sensors AES have a stainless steel housing, M8 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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additional commercial and technical documents available

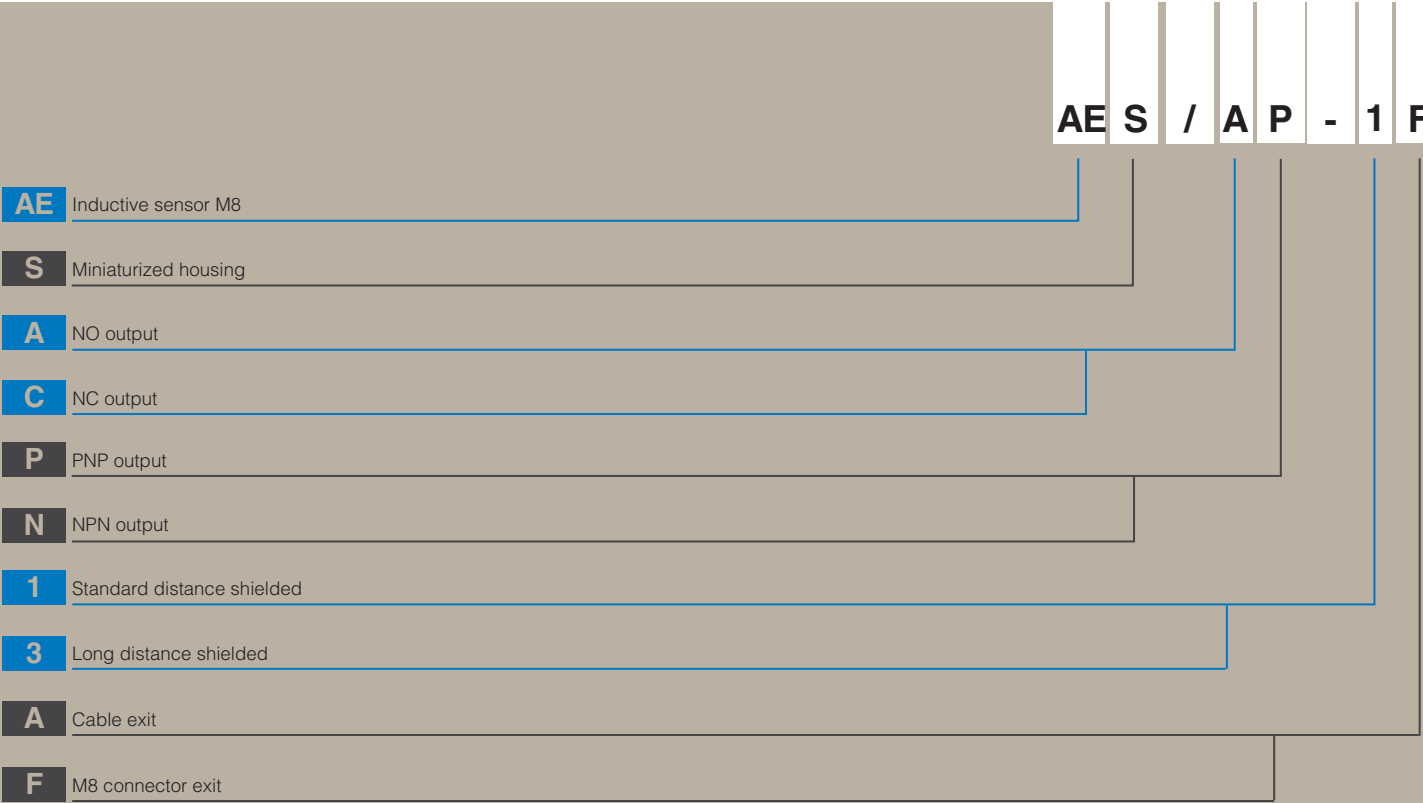
High resolution photos

customizations already tested

-

minimum order quantity

1 piece



available models

diameter	installation	distance	connection	distance	PNP - NO	NPN - NO	PNP - NC	NPN - NC
M8	shielded	standard distance	cable	1,5 mm	AES/AP-1A	AES/AN-1A	AES/CP-1A	AES/CN-1A
			M8 connector		AES/AP-1F	AES/AN-1F	AES/CP-1F	AES/CN-1F
		long distance	cable	2 mm	AES/AP-3A	AES/AN-3A	AES/CP-3A	AES/CN-3A
			M8 connector		AES/AP-3F	AES/AN-3F	AES/CP-3F	AES/CN-3F

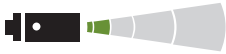


Products

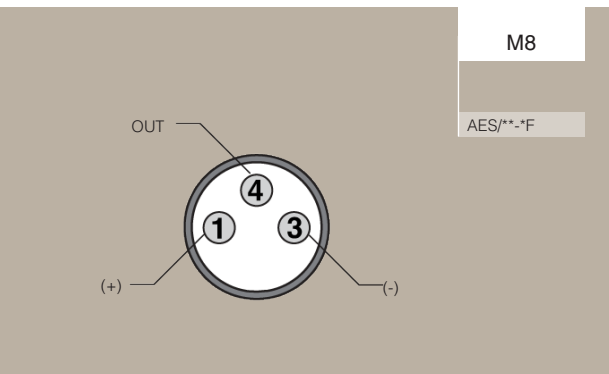
inductive
miniaturized

technical specifications

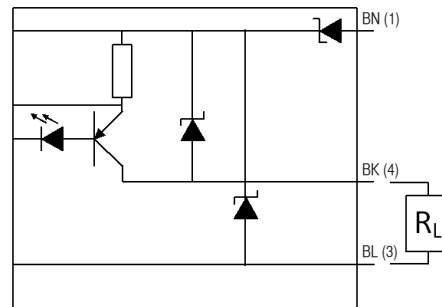
according to IEC EN 60947-5-2 and IEC EN 60947-5-7

		
	AES/**-1*	AES/**-3*
		
nominal sensing distance S_n	1,5 mm	2,0 mm
hysteresis	$1 \div 20\%$	
standard target	8 x 8 mm	
repeatability	5% @ $U_B = 20 \div 30 \text{ V}$; $T_a = 23^\circ\text{C} \pm 5^\circ\text{C}$	
operating voltage	$10 \div 30 \text{ V}_{cc}$	
ripple	$\leq 10 \%$	
output current	$\leq 100 \text{ mA}$	
output voltage drop	$\leq 1,5 \text{ V @ } 100\text{mA}$	
no-load current	$\leq 10 \text{ mA}$	
leakage current	$\leq 10 \mu\text{A}$	
switching frequency	7 kHz	
time delay before availability	$\leq 50 \text{ ms}$	
temperature range	$-25^\circ\text{C} \div +70^\circ\text{C}$	
thermal drift	$\leq 10\%$	
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)	

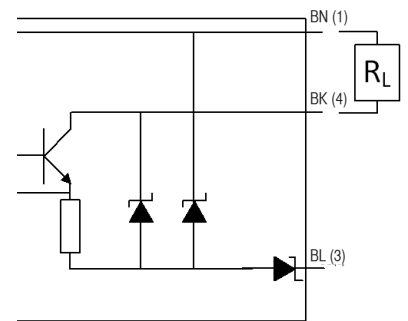
electrical connections



PNP models

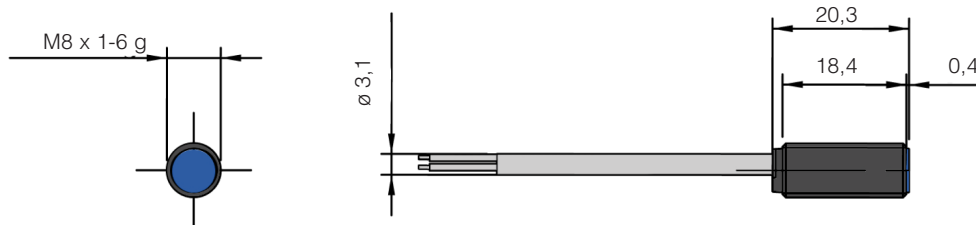


NPN models

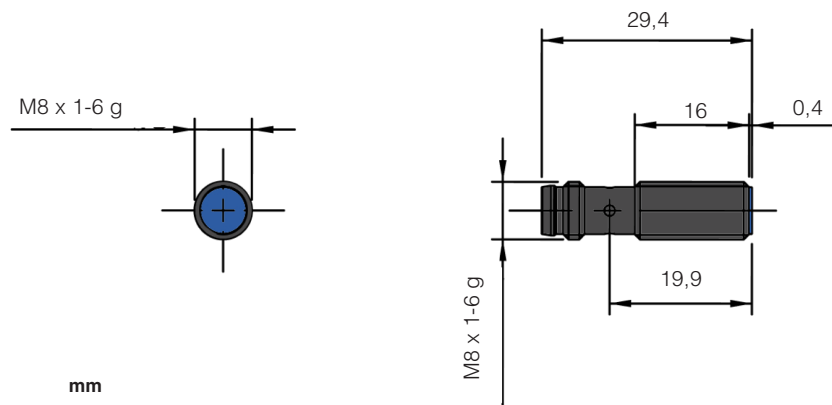


dimensions

AES/**-*A



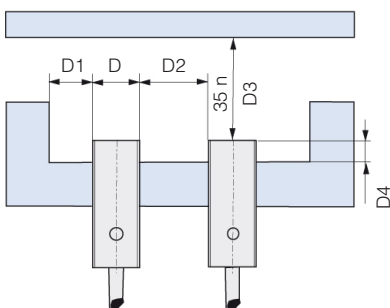
AES/**-*F



correction factors

model	FE360	copper	aluminium	brass	stainless steel
AES/xx-1x	1	0,15 ± 10%	0,10 ± 10%	0,15 ± 10%	0,55 ± 10%
AES/xx-3x	1	0,15 ± 10%	0,15 ± 10%	0,21 ± 10%	0,56 ± 10%

installation



model	D4	D1	D2	D3
AES/xx-1x	≥ 3 mm ⁽¹⁾	≥ 8 mm	≥ 8 mm	≥ 4,5 mm
AES/xx-3x	≥ 3,5 mm ⁽²⁾	≥ 8 mm	≥ 8 mm	≥ 6 mm

(1) $\geq 3,5$ mm without ferro-magnetic material
(2) ≥ 4 mm without ferro-magnetic material



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CAT3EAE1474301 DATASHEET AES ENGLISH ED.01/2014

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