



# AES series

M8 cylindrical  
miniaturized inductive sensors



M8 cylindrical  
miniaturized

## features

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



## web contents



- Application notes
- Photos
- Catalogue / Manuals



## code description (\*)

AE S / A P - 1 F 8F

series	<b>AE</b>	Inductive sensor M8
housing	<b>S</b>	Miniaturized housing
output state	<b>A</b>	NO output
	<b>C</b>	NC output
output logic	<b>N</b>	NPN output
	<b>P</b>	PNP output
distance	<b>1</b>	Standard distance shielded 1.5 mm
	<b>3</b>	Long distance shielded 2 mm
connect.	<b>A</b>	Cable exit
	<b>F</b>	M8 connector exit
special models	<b>8F</b>	Models with cable in PUR

Models with plug or cable exit in PUR → certification

Models with cable exit in PVC → certification or

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

## available models


diameter	installation	distance	plug	distance	PNP/NO	NPN/NO	PNP/NC	NPN/NC
M8	shielded	standard	cable	1.5 mm	AES/AP-1A	AES/AN-1A	AES/CP-1A	AES/CN-1A
			M8		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		AES/AP-3F	AES/AN-3F	AES/CP-3F	AES/CN-3F

AES

## technical specification

according to IEC EN 60947-5-2 / DIN 44030

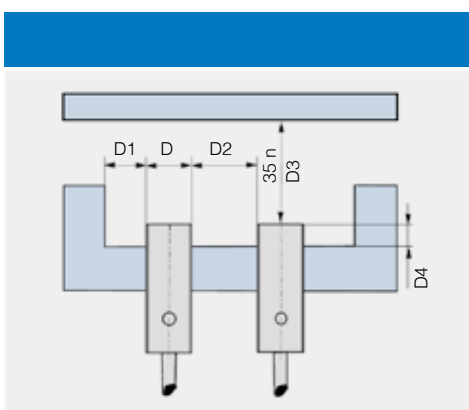
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	AES/**-1*	AES/**-3*
		
nominal sensing distance $S_n$	1,5 mm	2,0 mm
working distance	0...1.21 mm	0...1.62 mm
hysteresis	1...20%	
standard target	8 x 8 mm	
repeatability	5% @UB=20...30 V; Ta = 23°C ±5°C	
operating voltage	10...30 Vcc	
output type	NPN or PNP - NO or NC	
ripple	≤ 10%	
output current	≤ 100 mA	
output voltage drop	≤ 1.5 V @ 100mA	
no-load supply current	≤ 10 mA	
leakage current	≤ 10 µA	
switching frequency	7 kHz	
power on delay	≤ 50 ms	
temperature range	-25°C...+70°C	
temperature drift	≤ 10%	
power supply protections	polarity reversal	
output protection	short circuit (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	30 g cable / 4g M8 connector	

## correction factors

model	FE 360	copper	aluminium	brass	stainless steel
AES/**1*	1	0.15 ± 10%	0.10 ± 10%	0.15 ± 10%	0.55 ± 10%
AES/**3*			0.15 ± 10%	0.21 ± 10%	0.56 ± 10%

## installation



model	D4	D1	D2	D3
AES/**-1*	≥ 3 mm <sup>(1)</sup>	≥ 8 mm	≥ 8 mm	≥ 4.5 mm
AES/**-3*	≥ 3.5 mm <sup>(2)</sup>	≥ 8 mm	≥ 8 mm	≥ 6 mm

<sup>(1)</sup> ≥ 3 mm without ferro-magnetic material

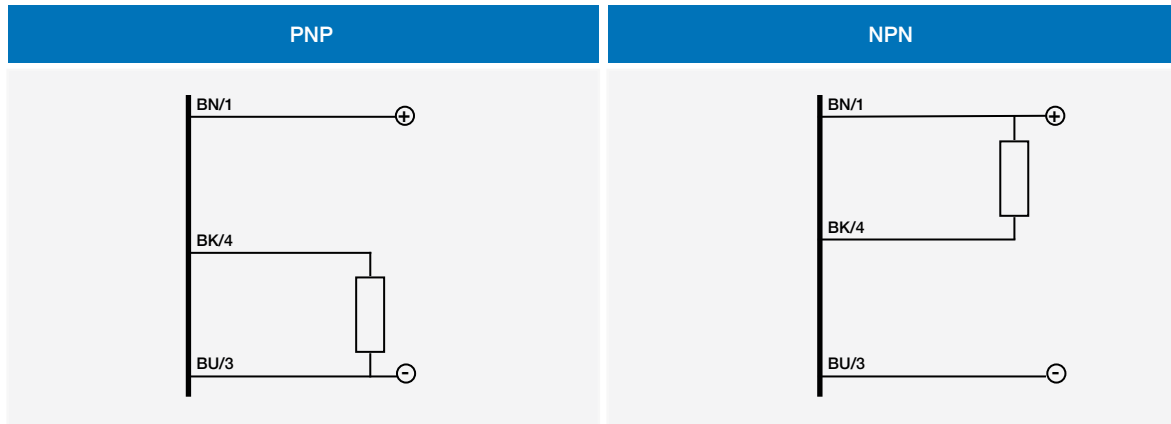
<sup>(2)</sup> ≥ 4 mm without ferro-magnetic material

AES

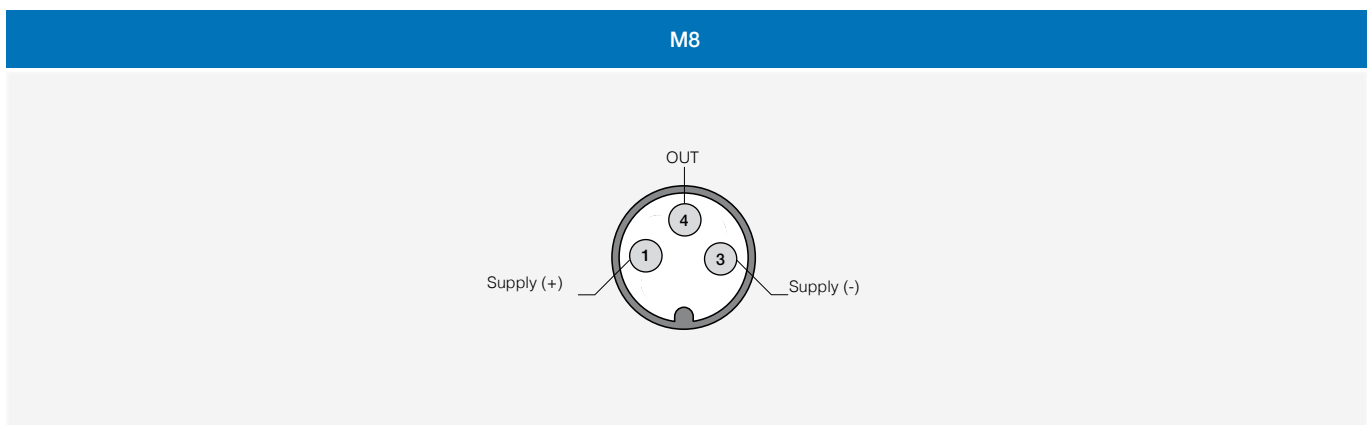
# electrical diagrams of connections



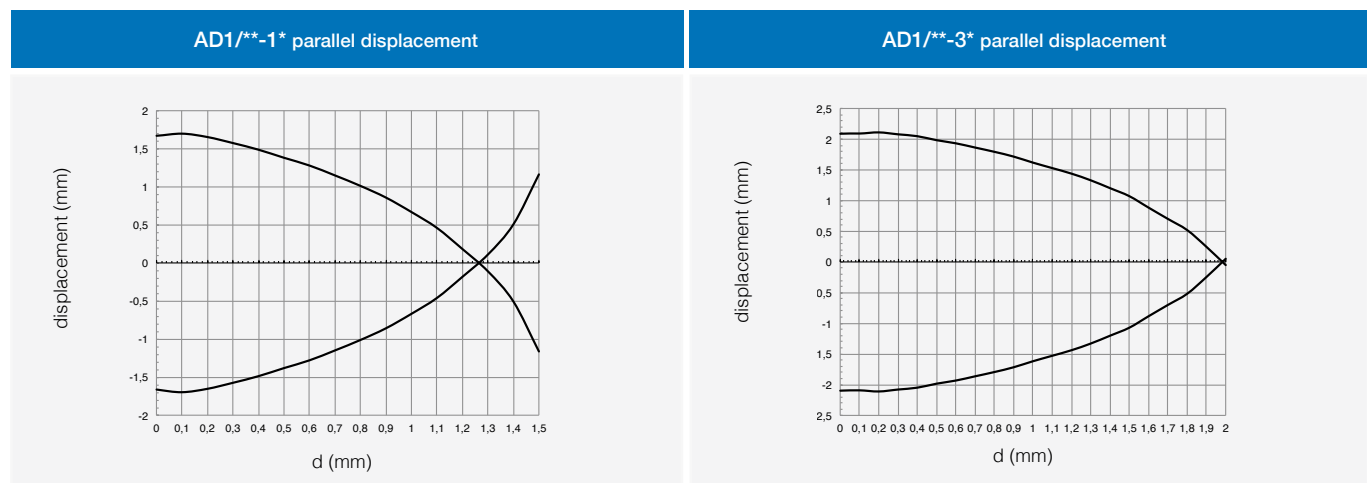
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# plug



# response diagram



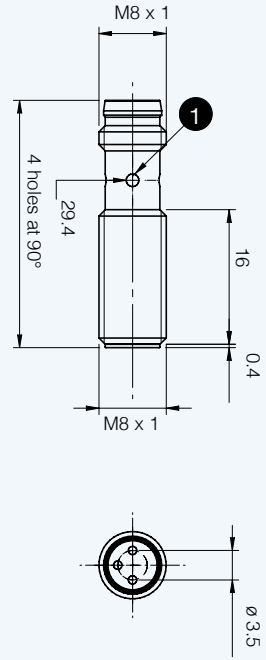
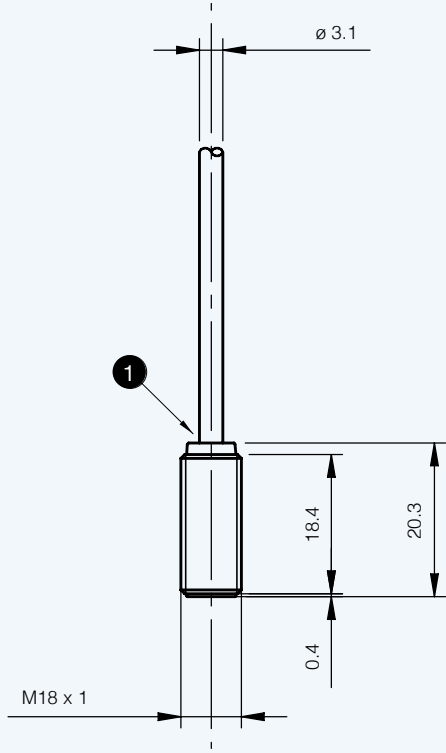


# dimensions (mm)

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AES/\*\*-\*A

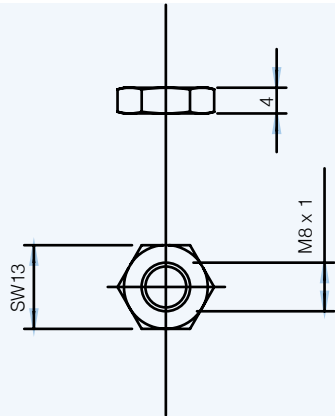
AES/\*\*-\*F



1 LED

# dimensions (mm)

accessories included models



metallic  
nut (2 x)

AES