



AD series

M5 cylindrical
miniaturized inductive sensors



M5 cylindrical
miniaturized



features

- Extremely reduced models
- 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

web contents



- Application notes
- Photos
- Catalogue / Manuals



code description (*)

AD 1 / A P - 1 A 8F

series	AD	Inductive sensor M5
housing	1	Miniaturized housing
	6	Miniaturized short housing
output state	A	NO output state
	C	NC output state
output logic	N	NPN logic output
	P	PNP logic 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



Models with cable exit in PVC → certification

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

available models

model	installation	sensing	plug	distance (mm)	PNP/NO	NPN/NO	PNP/NC	NPN/NC
M5	shielded	standard	cable	0,8	AD1/AP-1A	AD1/AN-1A	AD1/CP-1A	AD1/CN-1A
					AD6/AP-1A	AD6/AN-1A	AD6/CP-1A	AD6/CN-1A
			M8	AD1/AP-1F	AD1/AN-1F	AD1/CP-1F	AD1/CN-1F	
	long distance	cable	1,5	cable	AD1/AP-3A	AD1/AN-3A	AD1/CP-3A	AD1/CN-3A
					AD6/AP-3A	AD6/AN-3A	AD6/CP-3A	AD6/CN-3A
				M8	AD1/AP-3F	AD1/AN-3F	AD1/CP-3F	AD1/CN-3F

AD

	AD*/**-1*	AD*/**-3*
		
nominal sensing distance S_n	0.8 mm	1.5 mm
operating distance	0...0.65 mm	0...1.21 mm
hysteresis	1...20%	
standard target	5 x 5 mm	
repeatability	5% @UB=20...30 V; Ta = 23°C ±5°C	
operating voltage	10...30 Vdc	
ripple	≤ 10%	
output type	NPN or PNP - NO or NC	
output current	≤ 100 mA	
output voltage drop	≤ 1.5 V @ 100mA	
no-load supply current	≤ 10 mA	
leakage current	≤ 10 µA	
switching frequency	5 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	

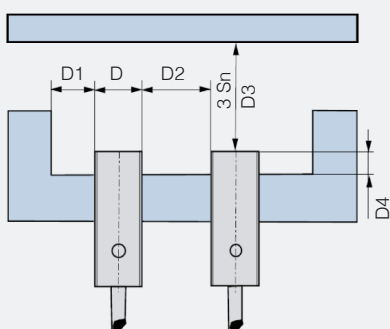
correction factors

model	FE 360	copper	aluminium	brass	stainless steel
AD*/**-1*	1	0.32 ± 10%	0.26 ± 10%	0.35 ± 10%	0.66 ± 10%
AD*/**-3*		0.33 ± 10%	0.27 ± 10%	0.34 ± 10%	

installation

model	D4	D1	D2	D3
AD*/**-1*	≥ 0 mm ⁽¹⁾	≥ 5 mm	≥ 5 mm	≥ 2.4 mm
AD*/**-3*	≥ 1 mm ⁽²⁾		≥ 10 mm	≥ 4.5 mm

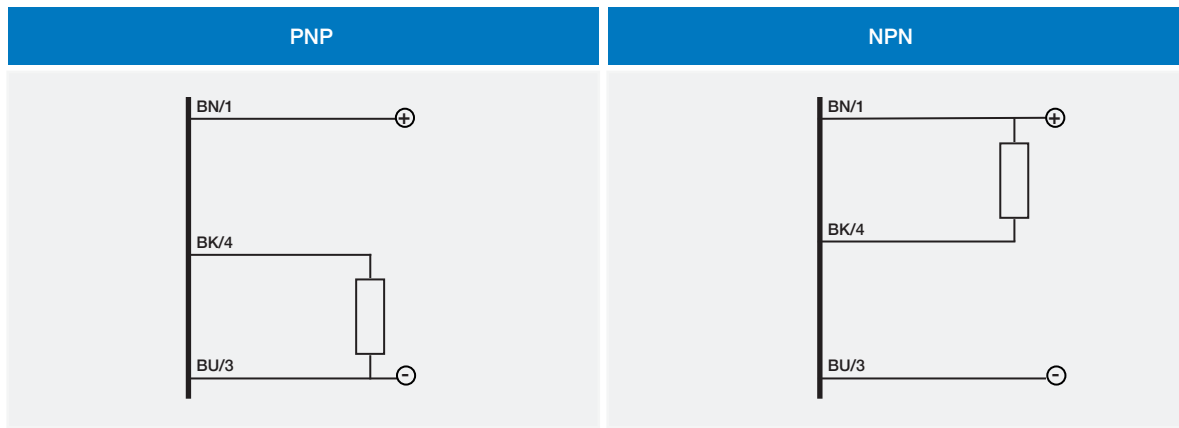
⁽¹⁾ ≥ 1 mm without ferro-magnetic material
⁽²⁾ ≥ 2 mm without ferro-magnetic material



electrical diagrams of connections

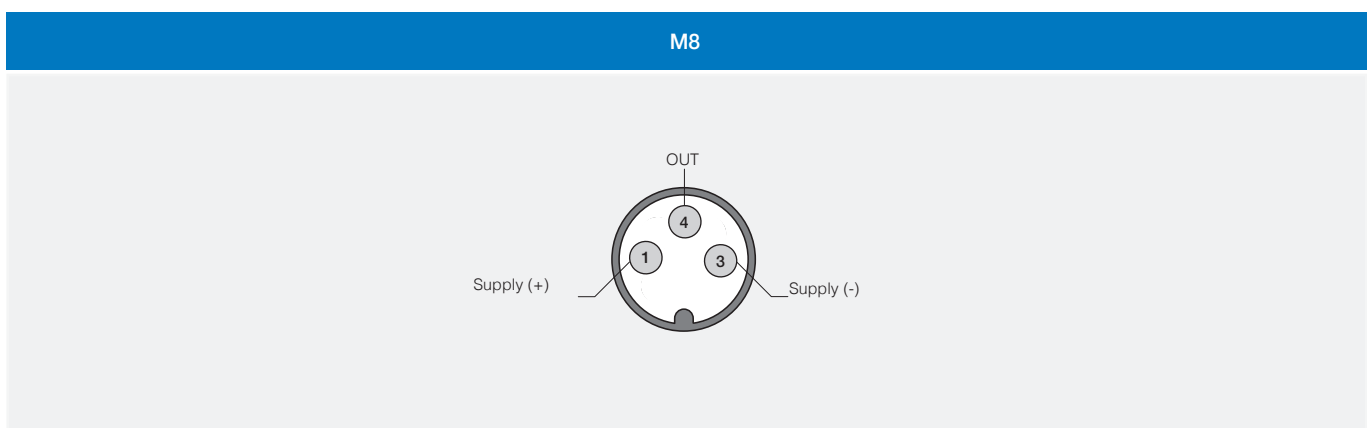


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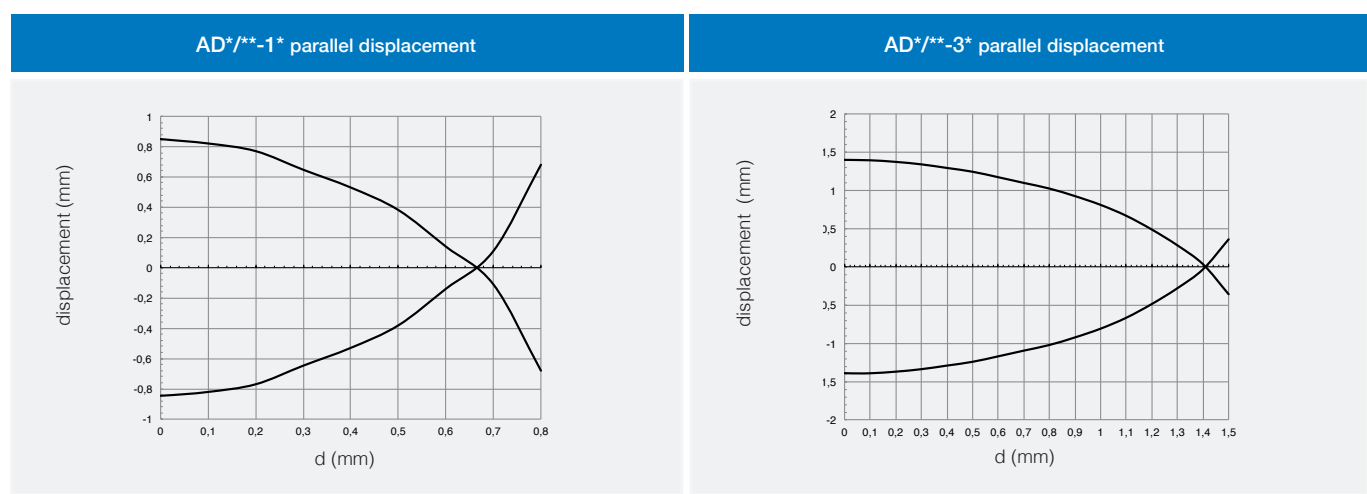


- BN** brown
- BU** blue
- BK** black
- WH** white

plug

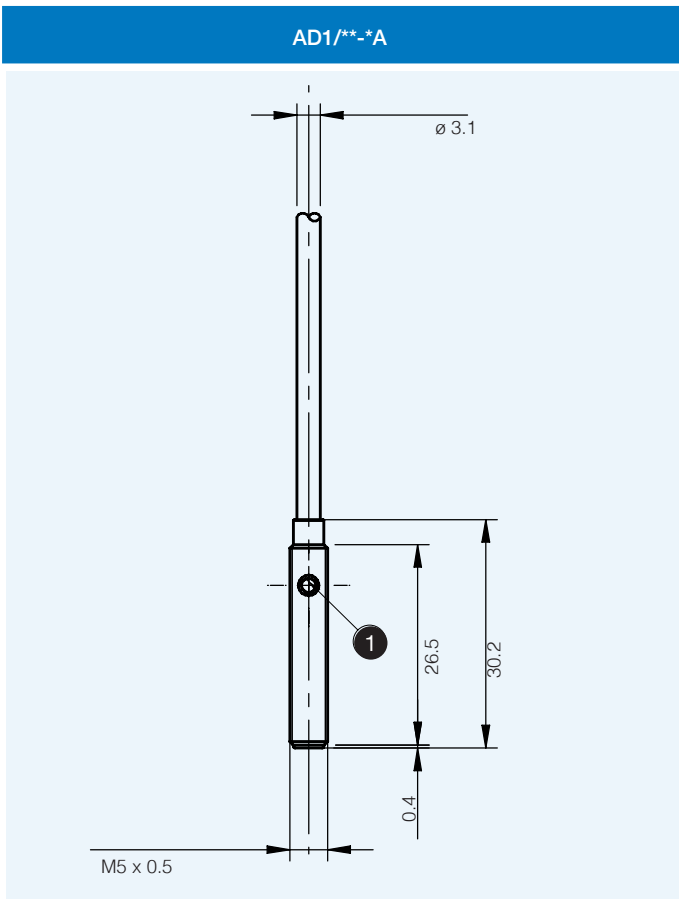


response diagram

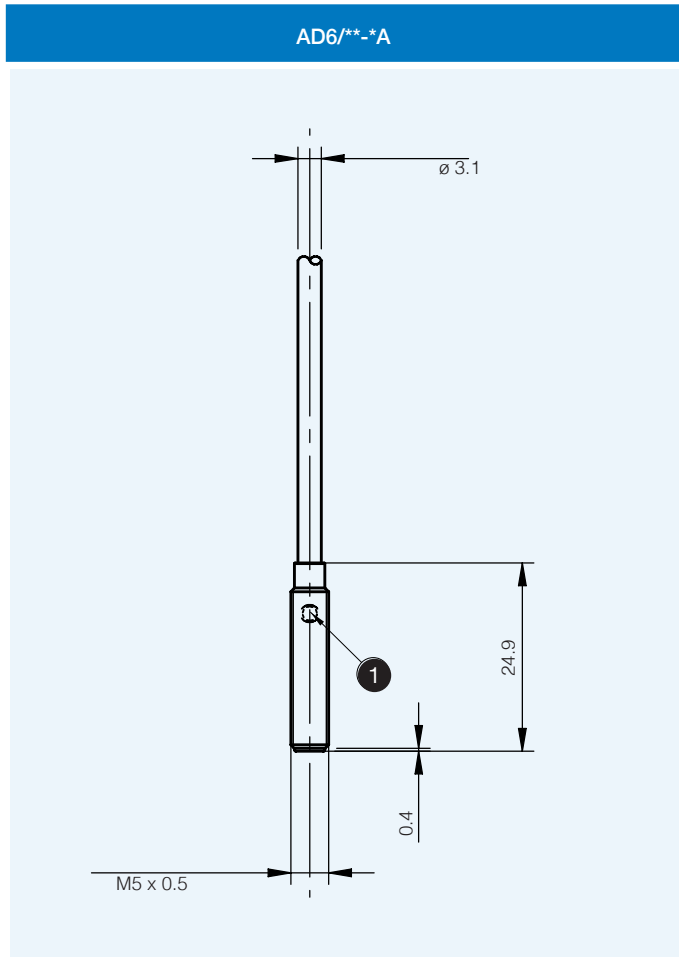
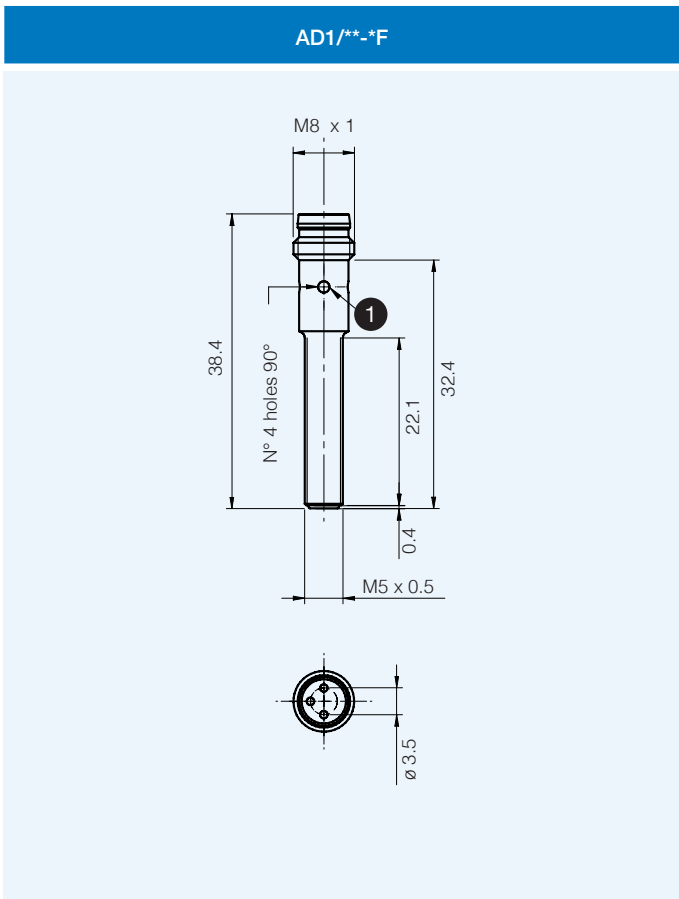


dimensions (mm)

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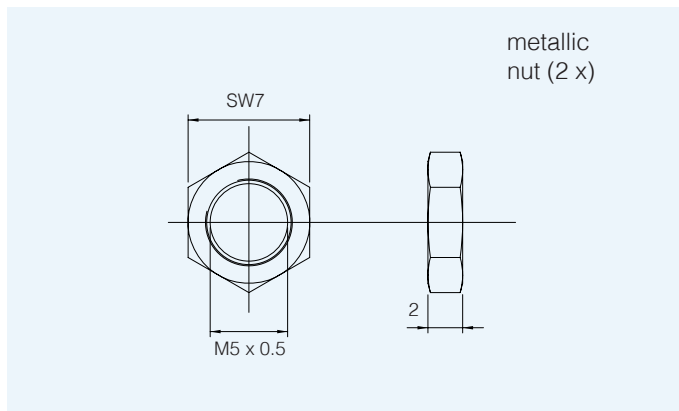
1 LED



1 LED

dimensions (mm)

accessories included in all models



AD