



AD series

M5 cylindrical
miniaturized inductive sensors



M5 cylindrical
miniaturized

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



web contents



- Application notes
- Photos
- Catalogue / Manuals



code description (*)

AD 1 / A P - 1 F 8F

series	AD	Inductive sensor M5
housing	1	Miniaturized 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 cUL^{us}

Models with cable exit in PVC → certification UL

(*) 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
			M8		AD1/AP-1F	AD1/AN-1F	AD1/CP-1F	AD1/CN-1F
		long distance	cable	1.5	AD1/AP-3A	AD1/AN-3A	AD1/CP-3A	AD1/CN-3A
			M8		AD1/AP-3F	AD1/AN-3F	AD1/CP-3F	AD1/CN-3F

AD



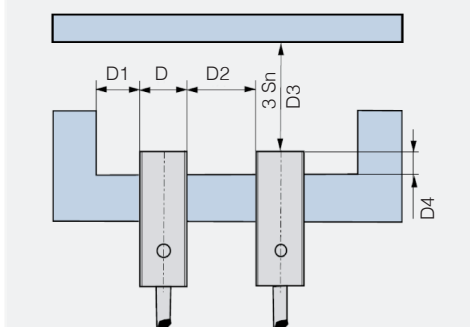
technical specification

	AD1/**-1*	AD1/**-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

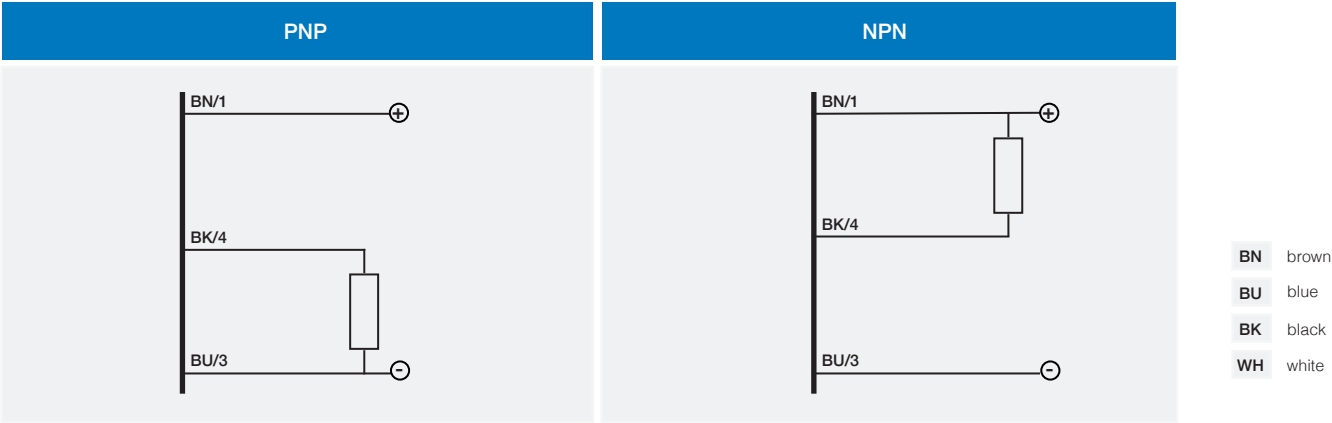
model	FE 360	copper	aluminium	brass	stainless steel
AD1/**-1*	1	0.32 ± 10%	0.26 ± 10%	0.35 ± 10%	0.66 ± 10%
AD1/**-3*		0.33 ± 10%	0.27 ± 10%	0.34 ± 10%	

installation

	model	D4	D1	D2	D3
	AD1/**-1*	≥ 0 mm ⁽¹⁾	≥ 5 mm	≥ 5 mm	≥ 2.4 mm
	AD1/**-3*	≥ 1 mm ⁽²⁾		≥ 10 mm	≥ 4.5 mm

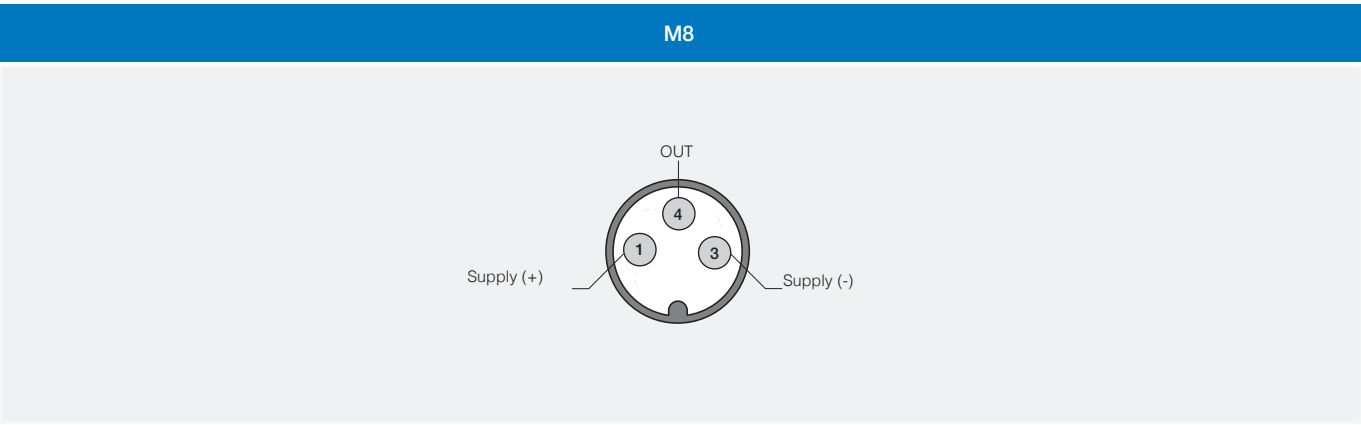
⁽¹⁾ ≥ 1 mm without ferro-magnetic material
⁽²⁾ ≥ 2 mm without ferro-magnetic material

electrical diagrams of connections

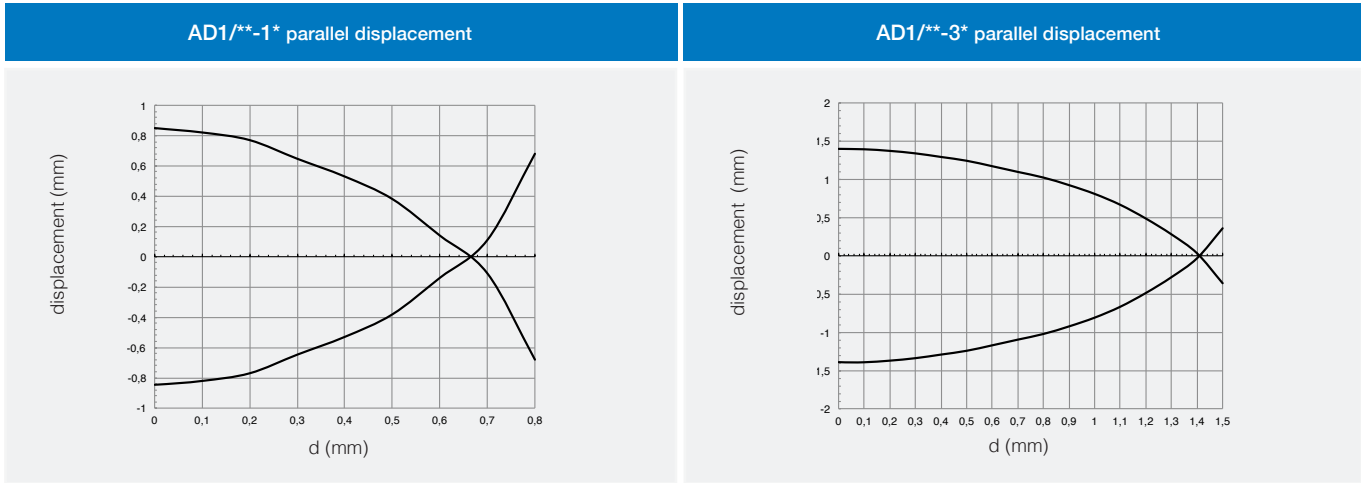


M5 cylindrical
miniaturized

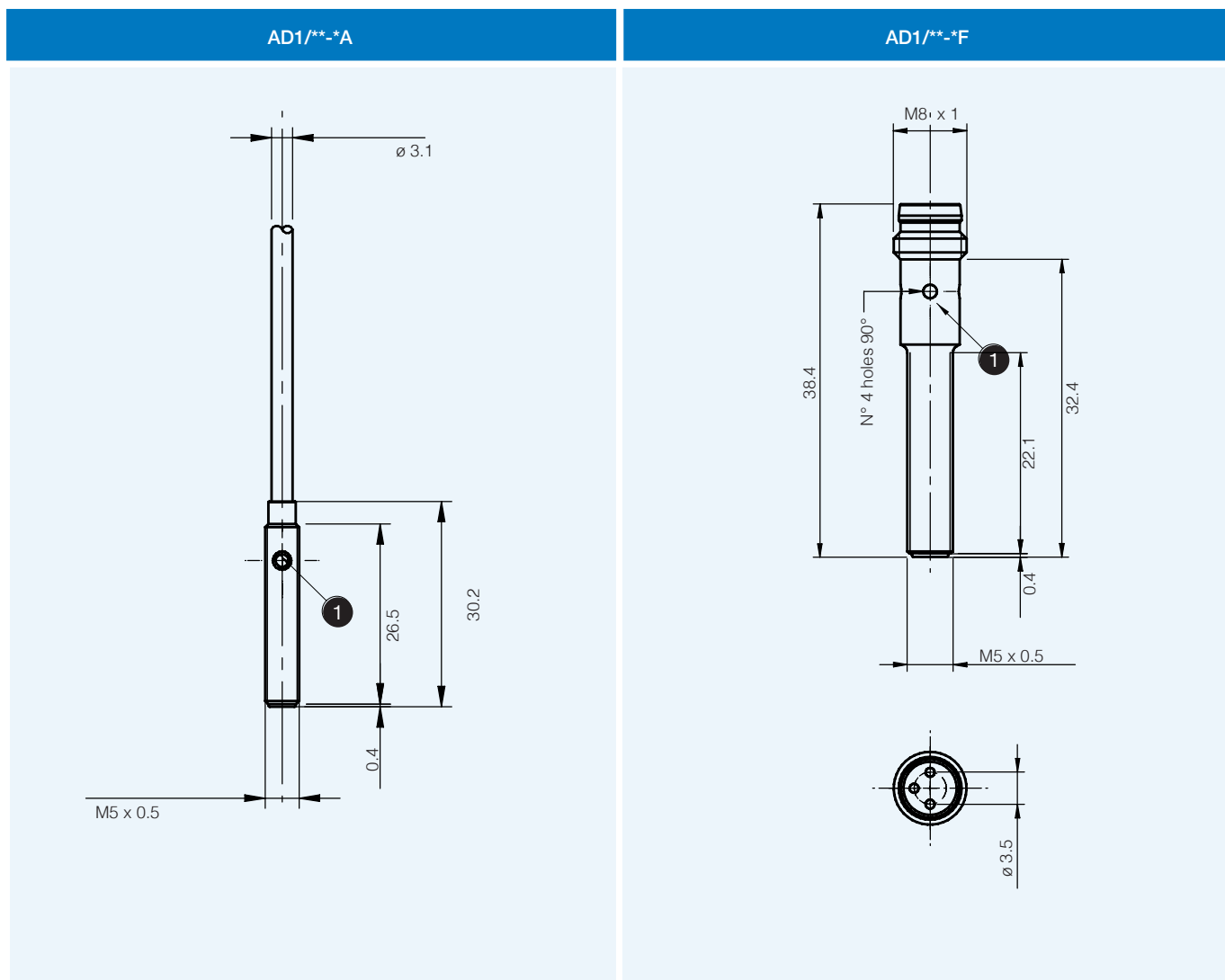
plug



response diagram



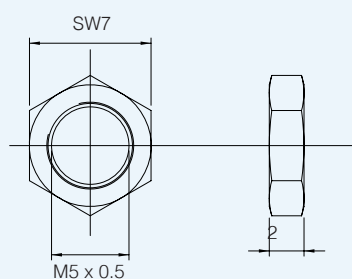
dimensions (mm)



1 LED

dimensions (mm)

accessories included in all models



metallic
nut (2 x)



PD1 series

M5 cylindrical miniaturized inductive sensors



M5 cylindrical miniaturized

features

- Cable and M8 plug versions
- Extremely reduced dimensions: M5 x 25 mm (cable) / 38 mm (plug) length
- Supply voltage 10...30 Vdc, output current 100 mA
- Led status indicator
- IP 67 housing protection
- Complete protection against electrical damages



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code description

			PD1 / A P - 1 A
series	PD1	M5 inductive proximity switch	
output state	A	NO output state	
	C	NC output state	
output logic	N	NPN logic output	
	P	PNP logic output	
distance	1	Standard shielded 0.8 mm	
	3	Long distance shielded 1.5 mm	
connect.	A	Cable exit output	
	F	M8 plug cable exit	

available models

model	installation	sensing	plug	distance (mm)	NPN/NO	NPN/NC	PNP/NO	PNP/NC
M5	shielded	standard	cable	0.8	PD1/AN-1A	-	PD1/AP-1A	PD1/CP-1A
			M8		-	PD1/CN-1F	PD1/AP-1F	PD1/CP-1F
		long distance	cable	1.5	PD1/AN-3A	-	-	-
			M8		PD1/AN-3F	-	PD1/AP-3F	-