AE series

M8 cylindrical inductive sensors

features

- **Extremely reduced measure**
- **Metal housing**
- **LED status indicator 360° visible**
- **IP 67 housing protection**
- **ATEX models, cat. 3, available on request**
- **Complete protection against electrical damages**
- **Standard and long distance models**
- **Standard and short body housing**

web contents

- **Application notes**
- **Photos**
- **Catalogue / Manuals**



code description

AE 1 / A P - 1 A

series	AE	M8 inductive proximity switch
housing	1	Standard body
	6	Short body
output state	A	NO output state
	C	NC output state
output logic	N	NPN logic output
	P	PNP logic output
distance	1	Shielded standard 1.5 mm
	2	Unshielded standard 2.5 mm
	3	Long distance shielded 2 mm
	4	Unshielded long distance 4 mm
connect.	A	Axial cable exit
	F	M8 plug cable exit
	H	M12 plug cable exit

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

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Instrumentación | Proyectos | Servicios

available models

standard housing

diameter	installation	distance	plug	distance (mm)	NPN/NO	NPN/NC	PNP/NO	PNP/NC
M8	shielded	standard	cable	1.5	AE1/AN-1A	AE1/CN-1A	AE1/AP-1A	AE1/CP-1A
			M8		AE1/AN-1F	AE1/CN-1F	AE1/AP-1F	AE1/CP-1F
			M12		AE1/AN-1H	AE1/CN-1H	AE1/AP-1H	AE1/CP-1H
	unshielded		cable	2.5	AE1/AN-2A	AE1/CN-2A	AE1/AP-2A	AE1/CP-2A
			M8		AE1/AN-2F	AE1/CN-2F	AE1/AP-2F	AE1/CP-2F
			M12		AE1/AN-2H	AE1/CN-2H	AE1/AP-2H	AE1/CP-2H
	shielded	long distance	cable	2	AE1/AN-3A	AE1/CN-3A	AE1/AP-3A	AE1/CP-3A
			M8		AE1/AN-3F	AE1/CN-3F	AE1/AP-3F	AE1/CP-3F
			M12		AE1/AN-3H	AE1/CN-3H	AE1/AP-3H	AE1/CP-3H
	unshielded		cable	4	AE1/AN-4A	AE1/CN-4A	AE1/AP-4A	AE1/CP-4A
			M8		AE1/AN-4F	AE1/CN-4F	AE1/AP-4F	AE1/CP-4F
			M12		AE1/AN-4H	AE1/CN-4H	AE1/AP-4H	AE1/CP-4H

available models

short housing

diameter	installation	distance	plug	distance (mm)	NPN/NO	NPN/NC	PNP/NO	PNP/NC
M8	shielded	standard	cable	1.5	AE6/AN-1A	AE6/CN-1A	AE6/AP-1A	AE6/CP-1A
			M8		AE6/AN-1F	AE6/CN-1F	AE6/AP-1F	AE6/CP-1F
	unshielded		cable	2.5	AE6/AN-2A	AE6/CN-2A	AE6/AP-2A	AE6/CP-2A
			M8		AE6/AN-2F	AE6/CN-2F	AE6/AP-2F	AE6/CP-2F
	shielded	long distance	cable	2	AE6/AN-3A	AE6/CN-3A	AE6/AP-3A	AE6/CP-3A
			M8		AE6/AN-3F	AE6/CN-3F	AE6/AP-3F	AE6/CP-3F
	unshielded		cable	4	AE6/AN-4A	AE6/CN-4A	AE6/AP-4A	AE6/CP-4A
			M8		AE6/AN-4F	AE6/CN-4F	AE6/AP-4F	AE6/CP-4F

correction factors

code	steel FE 360	copper	alluminium	brass	stainless steel
AE*/**-1*	1	0.29	0.38	0.49	0.78
AE*/**-2*		0.43	0.51	0.59	0.83
AE*/**-3*		0.35	0.43	0.52	0.78
AE*/**-4*		0.47	0.52	0.58	079

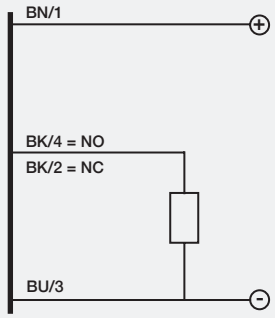
technical specification

	AE*/**-1*	AE*/**-2*	AE*/**-3*	AE*/**-4*
				
nominal sensing distance	1.5 mm	2.5 mm	2 mm	4 mm
operating distance	0...1.21 mm	0...2.02 mm	0...1.62 mm	0...3.24 mm
hysteresis	1...20% Sr			
standard target	8x8 mm FE360			12x12 mm FE360
repeatibility	5%			
operating voltage	10...30 Vdc			
max ripple content	≤ 10%			
output type	NPN or PNP - NO or NC			
output current	≤ 200 mA			
output voltage drop	≤ 1,8 V @ 200 mA			
no-load supply current	10 mA			
leakage current	≤10 µA			
switching frequency	5 kHz			
power on delay	50 ms			
ambient temperature range	-25...+70 °C			
temperature drift of Sr	10%			
short-circuit protection	●			
voltage reversal protection	●			
induction protection	●			
shocks and vibrations	IEC 60947-5-2			
weight	20 g connector / 45 g cable			
LEDs	yellow LED output state			
protection degree	IP 67 (EN60529)			
EMC	in conformity with the EMC Directive, according to IEC 60947-5-2			
housing material	nickel-plated brass			
active head material	PBT			
connection	cable 2 m PVC / plug M8 or M12			
tightening torque	3 Nm			

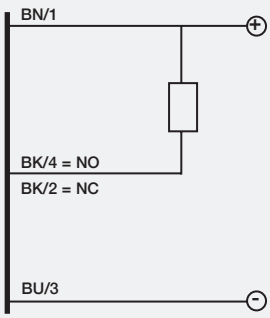
electrical diagrams of connections

3 wires versions

M12 PNP

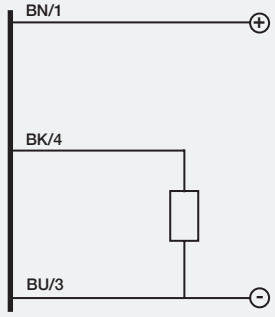


M12 NPN

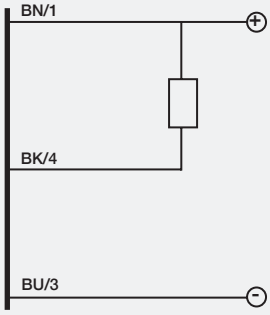


BN	brown
BU	blue
BK	black
WH	white

M8 PNP



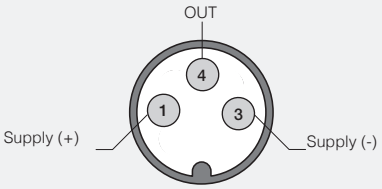
M8 NPN



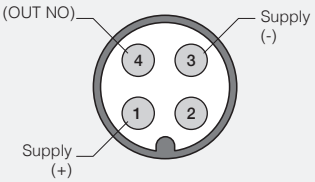
BN	brown
BU	blue
BK	black
WH	white

plug

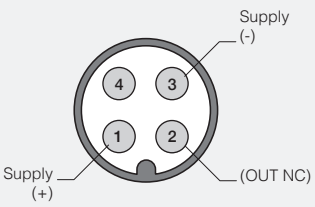
M8



M12 - NO

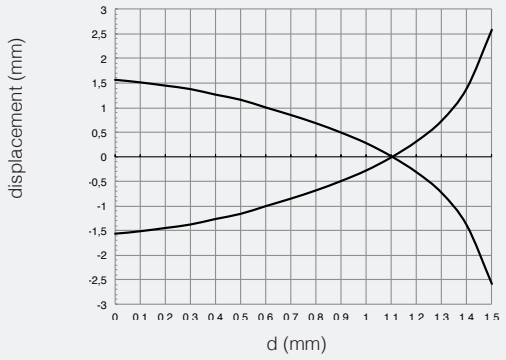


M12 - NC

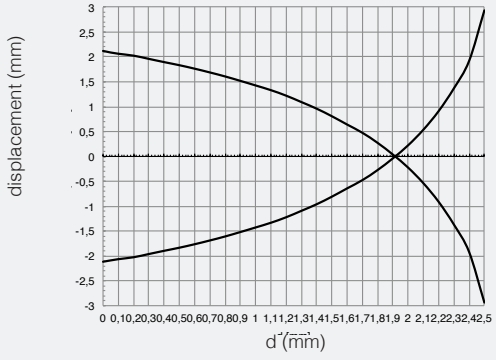


response diagram

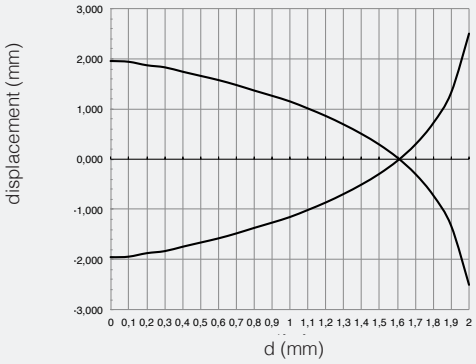
AE*/**-1* parallel displacement



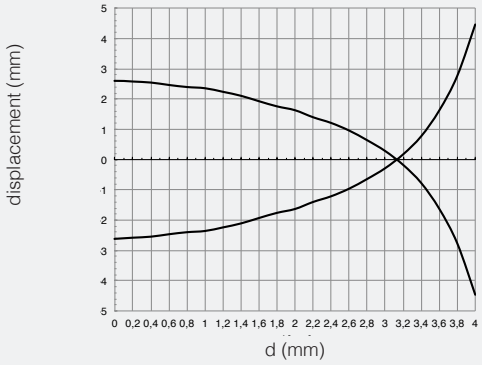
AE*/**-2* parallel displacement



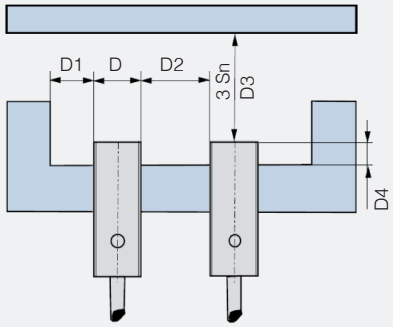
AE*/**-3* parallel displacement



AE*/**-4* parallel displacement



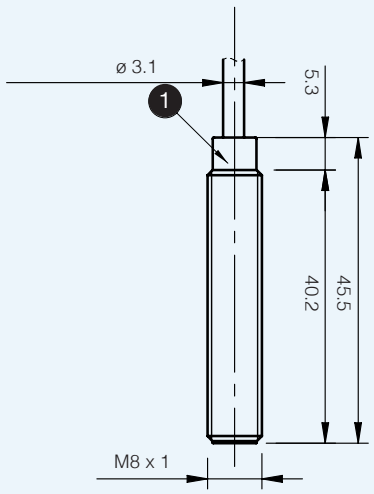
installation



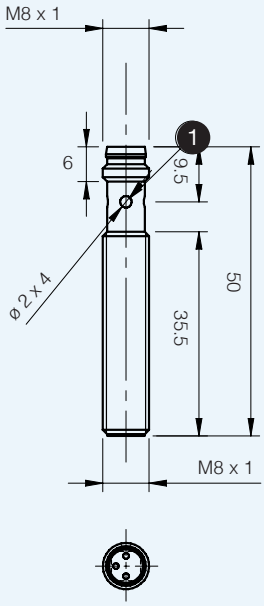
code	D4	D1	D2	D3
AE*/**-1*	≥ 1.6 mm	≥ 3.25 mm	≥ 6.5 mm	≥ 4.5 mm
AE*/**-2*	≥ 5 mm	≥ 6.5 mm	> 13 mm	≥ 7.5 mm
AE*/**-3*	≥ 1.6 mm	≥ 3.25 mm	≥ 6.5 mm	≥ 6 mm
AE*/**-4*	≥ 8 mm	≥ 6.5 mm	> 13 mm	≥ 12 mm

dimensions (mm)

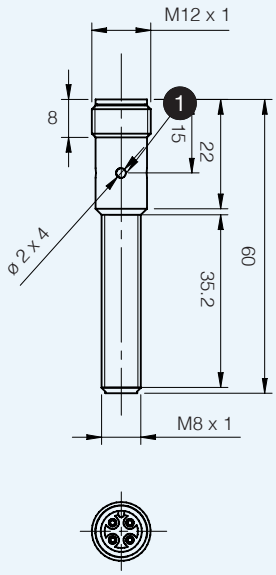
AE1/-1A**
AE1/-3A**



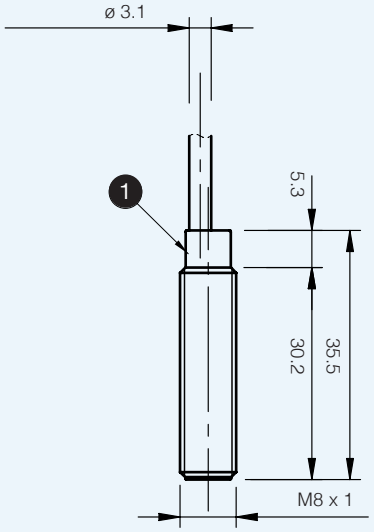
AE1/-1F**
AE1/-3F**



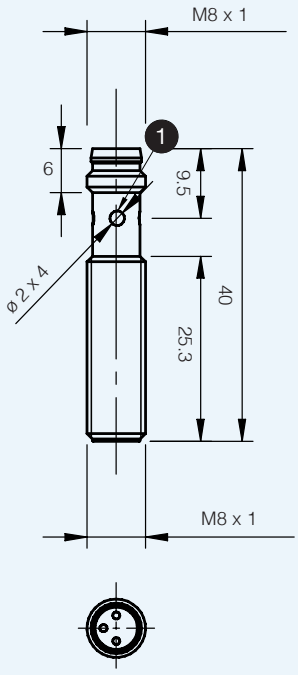
AE1/-1H**
AE1/-3H



AE6/-1A**
AE6/-3A**

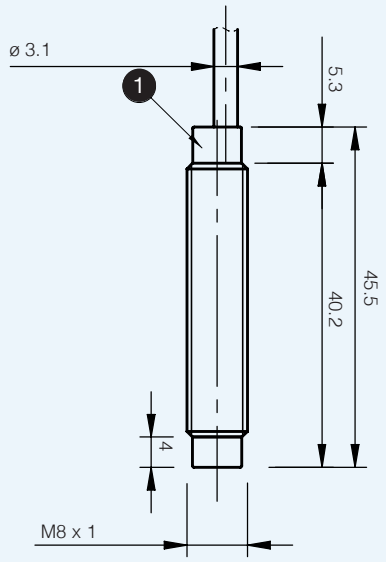


AE6/-1F**
AE6/-3F**

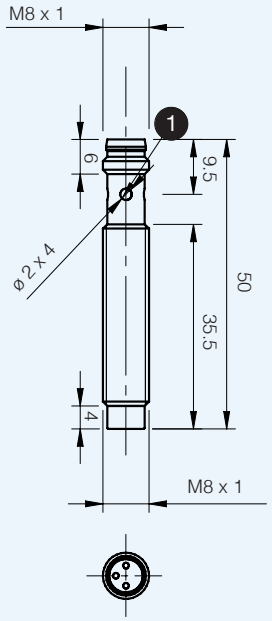


1 LED

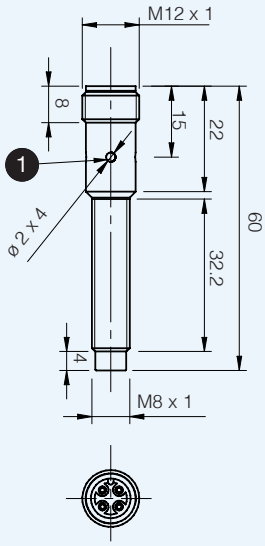
AE1/-2A**
AE1/-4A**



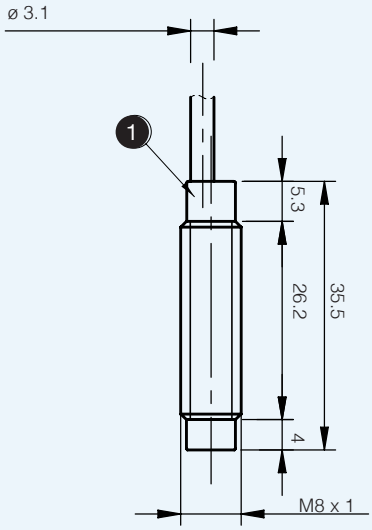
AE1/-2F**
AE1/-4F**



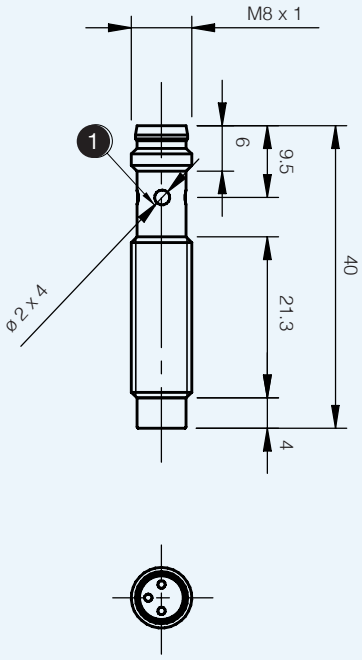
AE1/-2H**
AE1/-4H



AE6/-2A**
AE6/-4A**

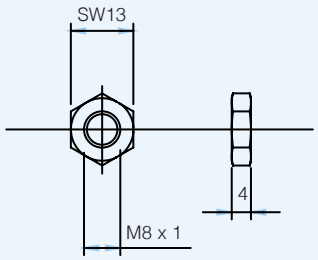


AE6/-2F**
AE6/-4F**



dimensions (mm)

accessories included



metallic
nut (2 x)