



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



M8 cylindrical

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.



M8 cylindrical

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	0.79

	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
repeatability	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

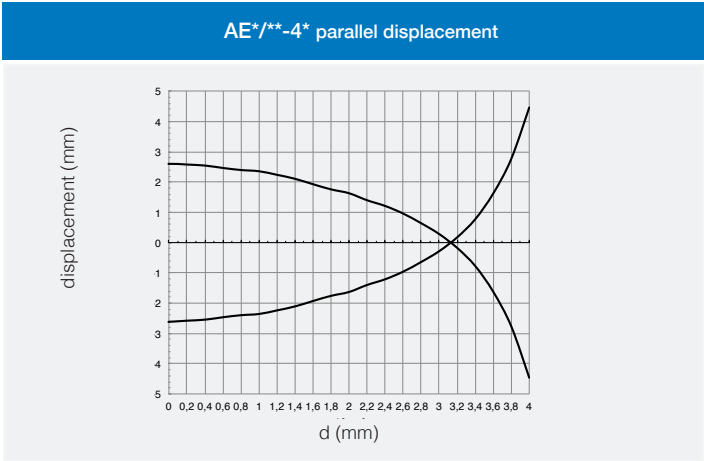
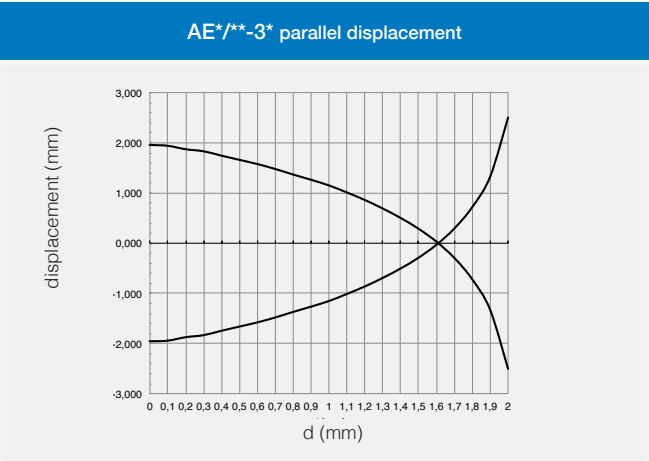
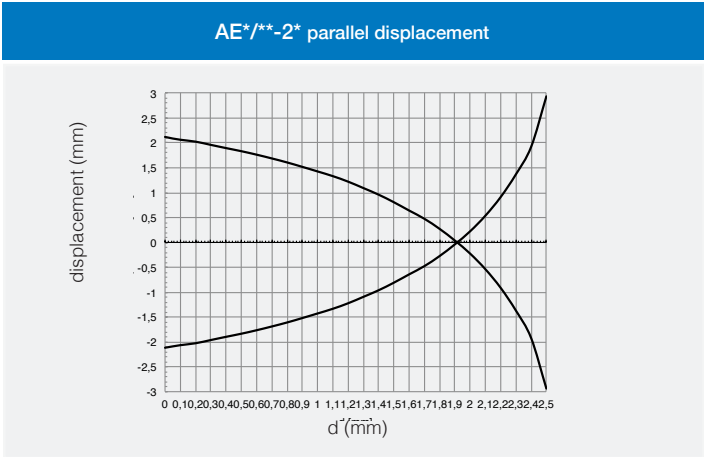
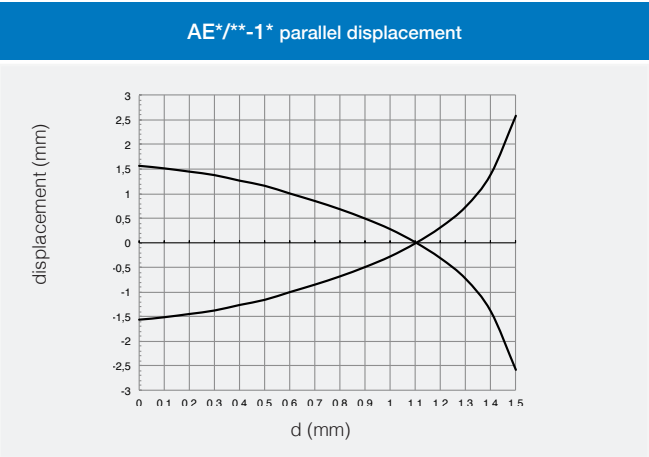
M12 PNP	M12 NPN
M8 PNP	M8 NPN

BN brown
BU blue
BK black
WH white

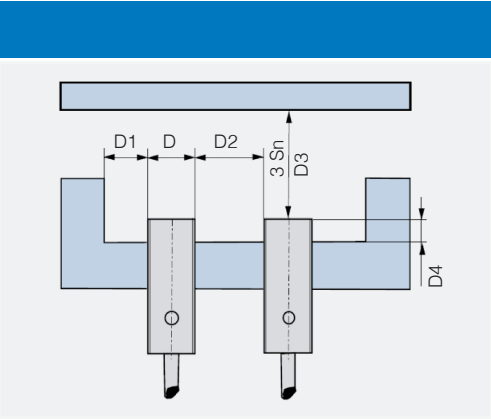
BN brown
BU blue
BK black
WH white

plug

M8	M12 - NO
M12 - NC	



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

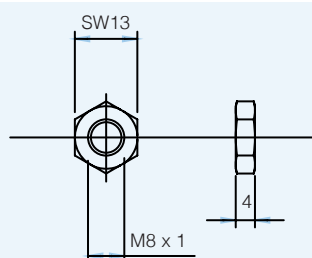


M8 cylindrical

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)

AE

EU Declaration of Conformity

UE DICHIARAZIONE DI CONFORMITA', UE DECLARACIÓN DE CONFORMIDAD, UE DÉCLARATION DE CONFORMITÉ, EU KONFORMITÄTSEKTLÄRUNG, EU CONFORMITEITSVERKLARING, EU FÖRSÄKRAN OM ÖVERENSSTÄMMELSE

Manufacturer / Produttore / Fabricante / Fabricant / Hersteller / Fabrikant / Tillverkaren

Datasensing S.r.l.

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Apparatus / Apparato / Aparato / Appareil / Gerätetyp / Apparaatmodel / Apparatmodell

AE_AN

Proximity Sensor

This declaration of conformity is issued under the sole responsibility of the manufacturer / La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante / La presente declaración de conformidad se expide bajo la exclusiva responsabilidad del fabricante / La présente déclaration de conformité est établie sous la seule responsabilité du fabricant / Die alleinige Verantwortung für die Ausstellung dieser onformitätserklärung trägt der Hersteller / Deze conformiteitsverklaring wordt verstrekt onder volledige verantwoordelijkheid van de fabrikant / Denna försäkran om överensstämmelse utfärdas på tillverkarens eget ansvar.

The object of the declaration described above is in conformity with the relevant Union harmonization legislation: / L'oggetto della dichiarazione di cui sopra è conforme alla pertinente normativa di armonizzazione dell'Unione: / El objeto de la declaración descrita anteriormente es conforme con la legislación de armonización pertinente de la Unión: / L'objet de la déclaration décrit ci-dessus est conforme à la législation d'harmonisation de l'Union applicable: / Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union: / Het hierboven beschreven voorwerp is in overeenstemming de desbetreffende harmonisatiewetgeving van de Unie: / Föremålet för försäkran ovan överensstämmer med den relevanta harmoniserade unionslagstiftningen:

2014/30/EU (EMC)

2011/65/EU (RoHS 3)

2014/34/EU (ATEX)

References to the relevant harmonised standards: / Riferimento alle pertinenti norme armonizzate: / Referencias a las normas armonizadas: / Références des normes harmonisées: / Angabe der einschlägigen harmonisierten Normen: / Vermelding van de toegepaste relevante geharmoniseerde normen: / Hänvisningar till de relevanta harmoniserade standarder:

EN60079-0:2018, EN IEC 60079-7:2015/A1:2018, EN60079-31:2014, EN IEC 60947-5-2:2020, EN60947-5-7:2003, EN IEC 63000:2018

to the protection mode/al
modo di protezione



**II 3G Ex ec nC IIC T5 Gc
II 3D Ex tc IIIB T90°C Dc (connector)
II 3G Ex nC IIC T5 Gc
II 3D Ex tc IIIB T90°C Dc (cable)**

Certificate nr.
Nr. Certificato

0802004X

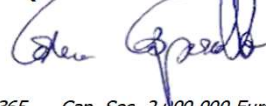
The sign "X" placed after the certificate number indicates that the device or protective system is subject to special conditions for safe use specified in the technical documentation.

Il segno "X" posto dopo il numero di certificato indica che il dispositivo è soggetto a condizioni speciali per l'uso in sicurezza specificate nella documentazione tecnica.

EU 3

**Modena
8/01/2024**

**Cosimo Capuzzello
(Chief Executive Officer)**



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