

AH

Ø 6,5 MM PROXIMITY INDUCTIVE SENSORS

Installation manual - 826001360 Rev. A - ENG - Created: 08/11/2022

SUPPLIED MATERIAL

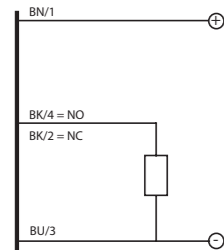
- Installation manual
- Safety instructions for dangerous areas
- Declaration of Conformity CE
- Label ATEX marked

GENERAL DESCRIPTION

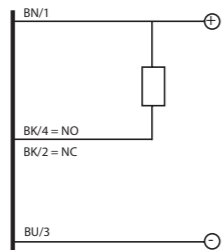
- Extremely reduced measure
- Metal housing
- LED status indicator 360° visible
- IP 67 protection degree
- Complete protection against electrical damages
- Standard and long distance models
- Standard and short body housing
- CE Mark
- ATEX certified

ELECTRICAL DIAGRAMS OF THE CONNECTIONS

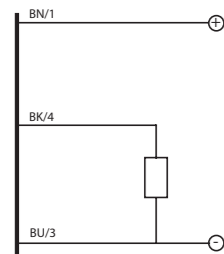
M12 PNP



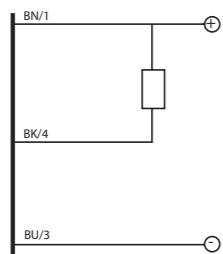
M12 NPN



M8 PNP



M8 NPN



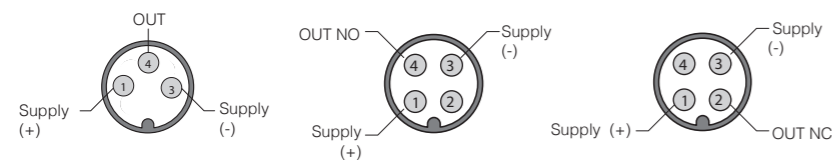
KEY:
BN = brown;
BK = black;
BU = blue;
WH = white.

CONNECTORS

M8

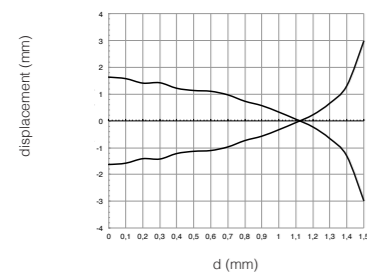
M12 - NO

M12 - NC

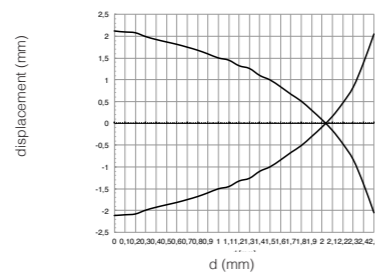


RESPONSE DIAGRAMS

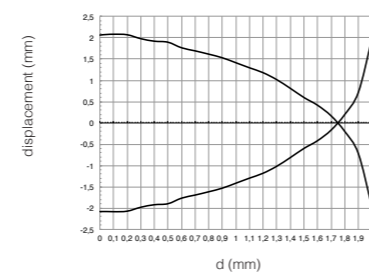
AH*/** -1* parallel displacement



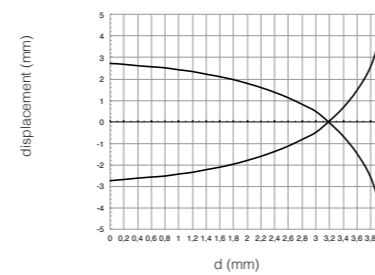
AH*/** -2* parallel displacement



AH*/** -3* parallel displacement



AH*/** -4* parallel displacement



SPECIFICATIONS

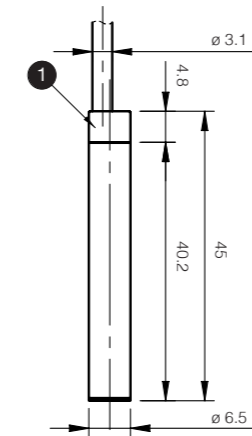
Models	AH*/** -1*	AH*/** -2*	AH*/** -3*	AH*/** -4*
nominal sensing	1.5 mm	2.5 mm	2 mm	4 mm
working distance	0...1.21 mm	0...2.02 mm	0...1.62 mm	0...3.24 mm
hysteresis	1...20% Sr			
standard target	8 x 8 mm FE360		12 x 12 mm FE360	
repeat accuracy	5 %			
supply voltage range	10...30 Vcc			
max ripple content	≤ 10 %			
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			
time delay before availability	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	7 g plug M8 version - 10 g plug M12 version - 35 g cable version			
LED indicators	yellow LED output state			
degree of protection	IP 67 (EN60529)			
EMC	conforming to EMC Directive requirements according to IEC 60947-5-2			
housing material	stainless steel			
sensing face	PBT			
connection	cable 2 m PVC / plug M8 or M12			

CODE DESCRIPTION

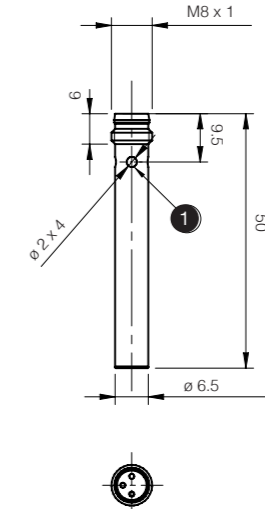
series	AE	M8 inductive proximity switch
housing	1	Standard body
	6	Short body
output state	A	NO output state
	C	NC output state
output logic	N	NPN logic output
	P	PNP logic output
distance	1	Shielded standard 1.5 mm
	2	Unshielded standard 2.5 mm
	3	Long distance shielded 2 mm
	4	Unshielded long distance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

DIMENSIONS (mm)

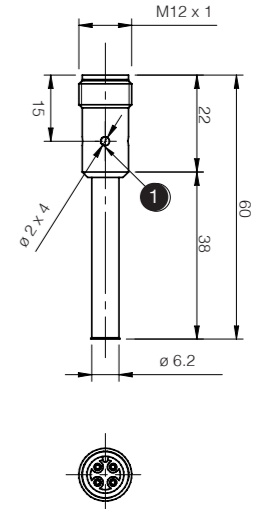
AH1 /** -A



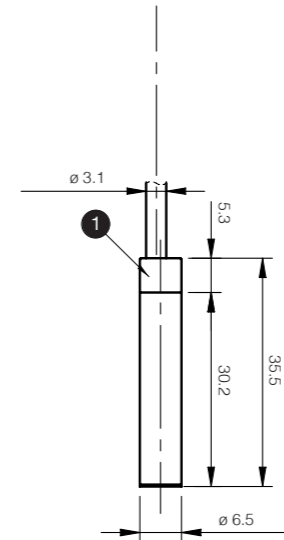
AH1 /** -F



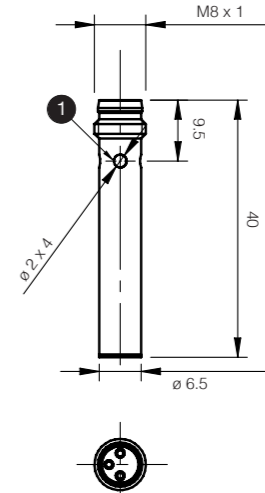
AH1 /** -H



AH6 /** -A

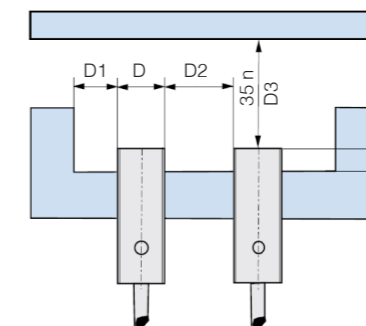


AH6 /** -F



1 LED

INSTALLATION



code	D4	D1	D2	D3
AH*/** -1*	≥ 3.9 mm	≥ 3.25 mm	≥ 6.5 mm	≥ 4.5 mm
AH*/** -2*	≥ 4 mm (1)	≥ 6.5 mm	≥ 13 mm	≥ 7.5 mm
AH*/** -3*	≥ 3.9 mm	≥ 3.75 mm	> 7 mm	≥ 6 mm
AH*/** -4*	≥ 6 mm	≥ 6.5 mm	> 15 mm	≥ 12 mm

(1) ≥ 2.6 mm for non magnetic materials



Micro Detectors
Italian Sensors Technology

CE
Model AH
II 3G Ex nA IIC T5 Gc
II 3D Ex tc IIIB T90°C Dc
Certificate N° : 0802003X

WARNING These products are NOT safety sensors and are NOT suitable for use in personal safety application.
For ATEX models read carefully safety instruction before installation.

Declaration of conformity
Datsensing S.r.l. declares under our sole responsibility that these products are in conformity with the EMC directive.

Datsensing S.r.l.
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Tel. +39 059 420411 - Fax +39 059 253973 -
www.datsensing.com

AH SENSORI DI PROSSIMITÀ INDUTTIVI CILINDRICI Ø 6,5 MM

Manuale d'installazione - 826001360 Rev. A - ITA - Creato il: 08/11/2022

CONTENUTO DELLA CONFEZIONE

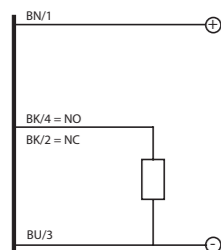
- Manuale di installazione
- Manuale di sicurezza per aree pericolose
- Dichiarazione di conformità CE
- Etichetta con Marcatura ATEX

DESCRIZIONE GENERALE

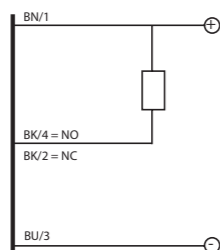
- Dimensioni estremamente ridotte
- Corpo metallico
- Indicatore LED visibile 360°
- Grado di protezione IP 67
- Totalmente protetti contro danneggiamenti di tipo elettrico
- Modelli distanza standard e lunga distanza
- Modelli con corpo standard e corpo corto
- Marchio CE
- Certificazione ATEX

SCHEMI ELETTRICI CONNESSIONI

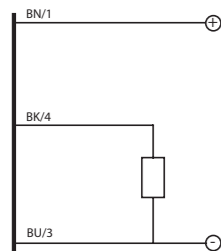
M12 PNP



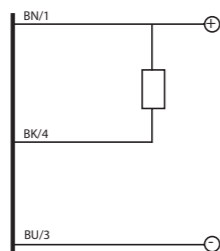
M12 NPN



M8 PNP



M8 NPN



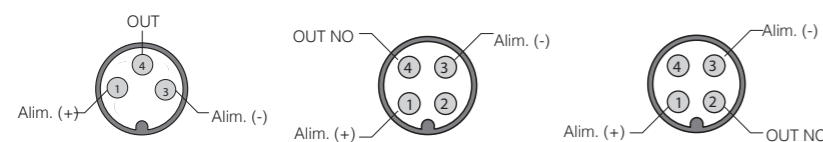
LEGENDA:
BN = marrone;
BK = nero;
BU = blu;
WH = bianco.

CONNETTORI

M8

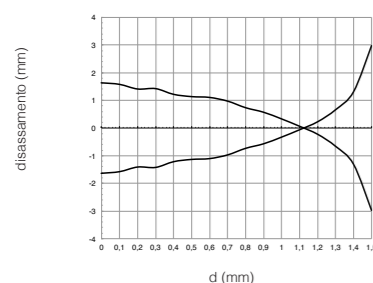
M12 - NO

M12 - NC

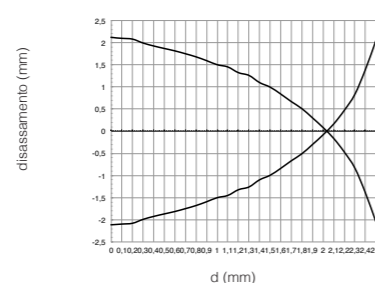


CURVE DI RISPOSTA

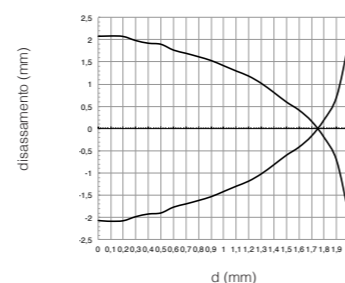
AH*/**-1* disassamento parallelo



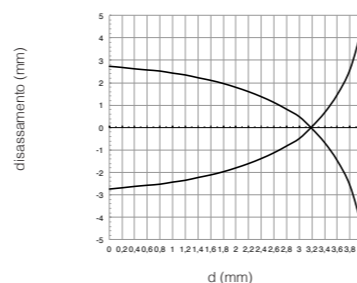
AH*/**-2* disassamento parallelo



AH*/**-3* disassamento parallelo



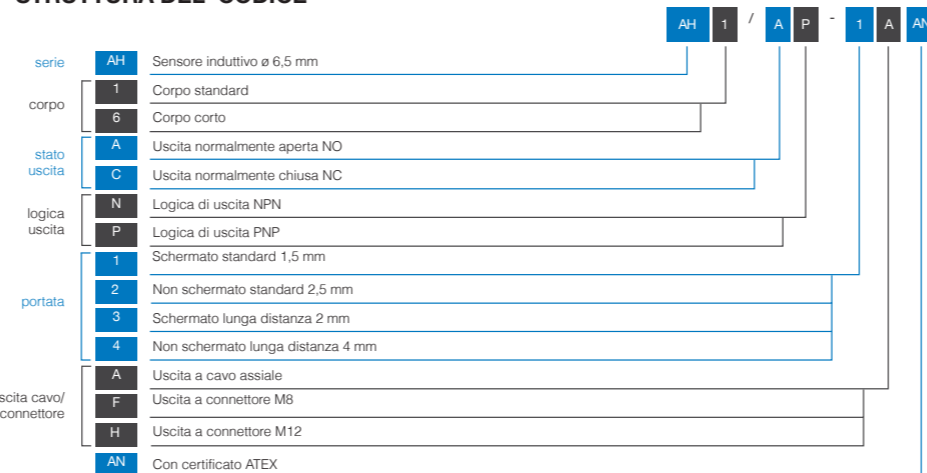
AH*/**-4* disassamento parallelo



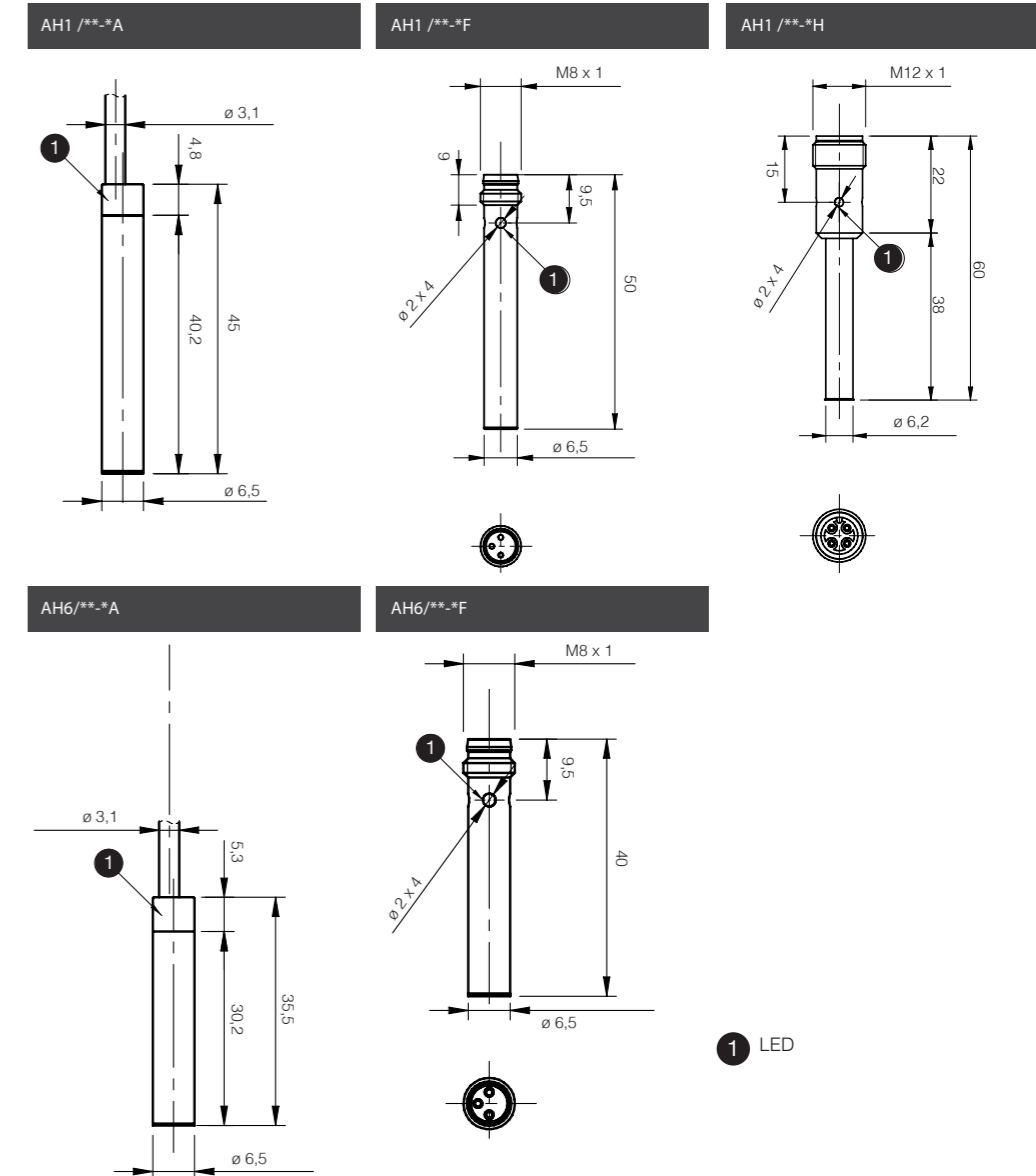
SPECIFICHE TECNICHE

Modelli	AH*/**-1*	AH*/**-2*	AH*/**-3*	AH*/**-4*
distanza di rilevazione nominale	1,5 mm	2,5 mm	2 mm	4 mm
distanza di lavoro	0...1,21 mm	0...2,02 mm	0...1,62 mm	0...3,24 mm
corsa differenziale	1...20% Sr			
dimensione oggetto normalizzato	8 x 8 mm FE360			12 x 12 mm FE360
ripetibilità	5 %			
campo di tensione di alimentazione	10...30 Vcc			
massima ondulazione residua	≤ 10 %			
corrente di uscita	≤ 200 mA			
tensione di saturazione di uscita	≤ 1,8 V @ 200 mA			
corrente di alimentazione senza carico	10 mA			
corrente di perdita	≤ 10 µA			
frequenza di commutazione	5 kHz			
ritardo all'accensione	50 ms			
campo di temperature ambiente	-25...+70 °C			
deriva termica di Sr	10%			
protezione al corto circuito	•			
protezione all'inversione di polarità di alimentazione	•			
protezione ai carichi induttivi	•			
shock e vibrazioni	IEC 60947-5-2			
peso	7 g versione a connettore M8 - 10 g versione a connettore M12 - 35 g versione a cavo			
indicatori LED	LED giallo stato dell'uscita			
grado di protezione	IP 67 (EN60529)			
compatibilità elettromagnetica	conforme ai requisiti della Direttiva EMC in accordo a IEC 60947-5-2			
materiale corpo	acciaio INOX			
superficie sensibile	PBT			
connessione	cavo 2 m PVC - connettore M8 o M12			

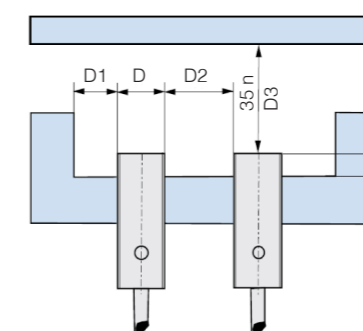
STRUTTURA DEL CODICE



DIMENSIONI (mm)



MONTAGGIO



codice	D4	D1	D2	D3
AH*/**-1*	≥ 3,9 mm	≥ 3,25 mm	≥ 6,5 mm	≥ 4,5 mm
AH*/**-2*	≥ 4 mm ⁽¹⁾	≥ 6,5 mm	≥ 13 mm	≥ 7,5 mm
AH*/**-3*	≥ 3,9 mm	≥ 3,75 mm	> 7 mm	≥ 6 mm
AH*/**-4*	≥ 6 mm	≥ 6,5 mm	> 15 mm	≥ 12 mm

(1) ≥ 2,6 mm per materiali non magnetici



Micro Detectors
Italian Sensors Technology

CE
Ex
Modello AH
II 3G Ex nA IIC T5 Gc
II 3D Ex tc IIB T90°C Dc
Certificato N°: 0802003X

ATTENZIONE Questo prodotto NON è un componente di sicurezza e NON deve essere usato in applicazioni di salvaguardia della sicurezza delle persone.
Per i modelli ATEX leggere attentamente le istruzioni di sicurezza prima dell'installazione.

Dichiarazione di conformità
Datsensing S.r.l. dichiara sotto la propria responsabilità che questi prodotti sono conformi ai contenuti della direttiva EMC.

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