



AH series

Ø 6.5 mm cylindrical inductive sensors



Ø 6.5 mm cylindrical

features

- Extremely reduced dimensions
- Metal housing (stainless steel)
- LED status indicator 360° visible
- IP 67 protection degree
- 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 (*)

			AH	1	/	A	P	-	1	A
series	AH	Ø 6.5 mm 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.

available models

standard housing

Ø 6.5 mm cylindrical

diameter (mm)	installation	distance	connection	distance	NPN/NO	NPN/NC	PNP/NO	PNP/NC
Ø 6,5	shielded	standard	cable	1.5	AH1/AN-1A	AH1/CN-1A	AH1/AP-1A	AH1/CP-1A
			M8		AH1/AN-1F	AH1/CN-1F	AH1/AP-1F	AH1/CP-1F
			M12		AH1/AN-1H	AH1/CN-1H	AH1/AP-1H	AH1/CP-1H
			cable		2.5	AH1/AN-2A	AH1/CN-2A	AH1/AP-2A
	M8	AH1/AN-2F	AH1/CN-2F	AH1/AP-2F		AH1/CP-2F		
	M12	AH1/AN-2H	AH1/CN-2H	AH1/AP-2H		AH1/CP-2H		
	cable	2	AH1/AN-3A	AH1/CN-3A		AH1/AP-3A	AH1/CP-3A	
	M8		AH1/AN-3F	AH1/CN-3F	AH1/AP-3F	AH1/CP-3F		
	M12		AH1/AN-3H	AH1/CN-3H	AH1/AP-3H	AH1/CP-3H		
	cable		4	AH1/AN-4A	AH1/CN-4A	AH1/AP-4A	AH1/CP-4A	
	M8	AH1/AN-4F		AH1/CN-4F	AH1/AP-4F	AH1/CP-4F		
	M12	AH1/AN-4H		AH1/CN-4H	AH1/AP-4H	AH1/CP-4H		
shielded	long distance	cable		1.5	AH1/AN-1A	AH1/CN-1A	AH1/AP-1A	AH1/CP-1A
unshielded		M8	AH1/AN-1F		AH1/CN-1F	AH1/AP-1F	AH1/CP-1F	
		M12	AH1/AN-1H		AH1/CN-1H	AH1/AP-1H	AH1/CP-1H	
shielded		standard	cable		2.5	AH1/AN-2A	AH1/CN-2A	AH1/AP-2A
	M8		AH1/AN-2F	AH1/CN-2F		AH1/AP-2F	AH1/CP-2F	
unshielded	long distance	cable	2	AH1/AN-3A	AH1/CN-3A	AH1/AP-3A	AH1/CP-3A	
		M8		AH1/AN-3F	AH1/CN-3F	AH1/AP-3F	AH1/CP-3F	
shielded	standard	cable	4	AH1/AN-4A	AH1/CN-4A	AH1/AP-4A	AH1/CP-4A	
		M8		AH1/AN-4F	AH1/CN-4F	AH1/AP-4F	AH1/CP-4F	
unshielded	long distance	cable	1.5	AH1/AN-1A	AH1/CN-1A	AH1/AP-1A	AH1/CP-1A	
		M8		AH1/AN-1F	AH1/CN-1F	AH1/AP-1F	AH1/CP-1F	

available models





short housing

diameter (mm)	installation	distance	connection	distance (mm)	NPN/NO	NPN/NC	PNP/NO	PNP/NC
Ø 6,5	shielded	standard	cable	1.5	AH6/AN-1A	AH6/CN-1A	AH6/AP-1A	AH6/CP-1A
			M8		AH6/AN-1F	AH6/CN-1F	AH6/AP-1F	AH6/CP-1F
			M12		AH6/AN-1H	AH6/CN-1H	AH6/AP-1H	AH6/CP-1H
			cable		2.5	AH6/AN-2A	AH6/CN-2A	AH6/AP-2A
	M8	AH6/AN-2F	AH6/CN-2F	AH6/AP-2F		AH6/CP-2F		
	M12	AH6/AN-2H	AH6/CN-2H	AH6/AP-2H		AH6/CP-2H		
	cable	2	AH6/AN-3A	AH6/CN-3A		AH6/AP-3A	AH6/CP-3A	
	M8		AH6/AN-3F	AH6/CN-3F	AH6/AP-3F	AH6/CP-3F		
	M12		AH6/AN-3H	AH6/CN-3H	AH6/AP-3H	AH6/CP-3H		
	cable		4	AH6/AN-4A	AH6/CN-4A	AH6/AP-4A	AH6/CP-4A	
	M8	AH6/AN-4F		AH6/CN-4F	AH6/AP-4F	AH6/CP-4F		
	M12	AH6/AN-4H		AH6/CN-4H	AH6/AP-4H	AH6/CP-4H		
unshielded	long distance	cable		1.5	AH6/AN-1A	AH6/CN-1A	AH6/AP-1A	AH6/CP-1A
shielded		M8	AH6/AN-1F		AH6/CN-1F	AH6/AP-1F	AH6/CP-1F	
		M12	AH6/AN-1H		AH6/CN-1H	AH6/AP-1H	AH6/CP-1H	
unshielded		standard	cable		2.5	AH6/AN-2A	AH6/CN-2A	AH6/AP-2A
	M8		AH6/AN-2F	AH6/CN-2F		AH6/AP-2F	AH6/CP-2F	
shielded	long distance	cable	2	AH6/AN-3A	AH6/CN-3A	AH6/AP-3A	AH6/CP-3A	
		M8		AH6/AN-3F	AH6/CN-3F	AH6/AP-3F	AH6/CP-3F	
unshielded	standard	cable	4	AH6/AN-4A	AH6/CN-4A	AH6/AP-4A	AH6/CP-4A	
		M8		AH6/AN-4F	AH6/CN-4F	AH6/AP-4F	AH6/CP-4F	
shielded	long distance	cable	1.5	AH6/AN-1A	AH6/CN-1A	AH6/AP-1A	AH6/CP-1A	
		M8		AH6/AN-1F	AH6/CN-1F	AH6/AP-1F	AH6/CP-1F	

correction factors

code	steel FE 360	copper	alluminium	brass	stainless steel
AH**1*	1	0.06	0.13	0.24	0.56
AH**2*		0.39	0.45	0.54	0.81
AH**3*		0.1	0.17	0.25	0.6
AH**4*		0.42	0.47	0.52	0.77

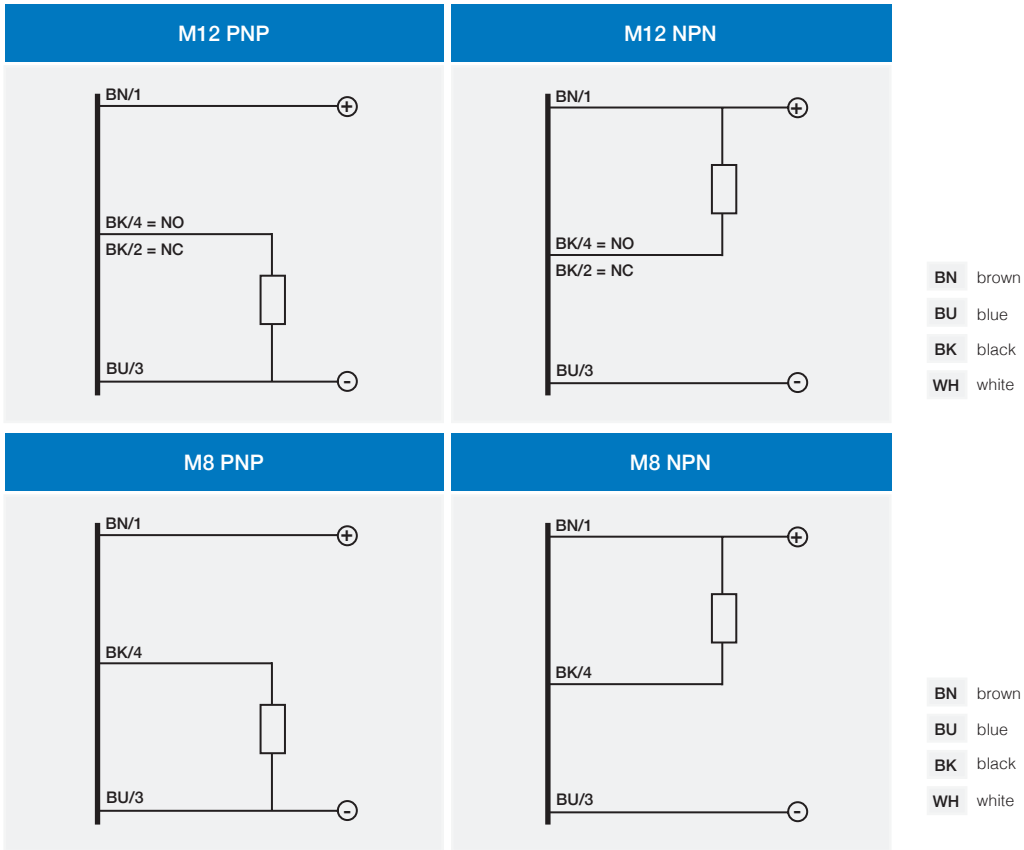


	AH*/**-1*	AH*/**-2*	AH*/**-3*	AH*/**-4*
				
nominal sensing	1.5 mm	2.5 mm	2 mm	4 mm
working distance	0...1.35 mm	0...2.25 mm	0...1.8 mm	0...3.5 mm
hysteresis	1...20% Sr			
standard target	8x8 mm FE360			12x12 mm FE360
repeatability	5%			
operating voltage	10...30 Vdc			
max ripple content	≤ 10%			
output 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	5 g connector / 5 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	stainless steel			
active head material	PBT			
connection	cable 2 m PVC - plug M8 or M12			

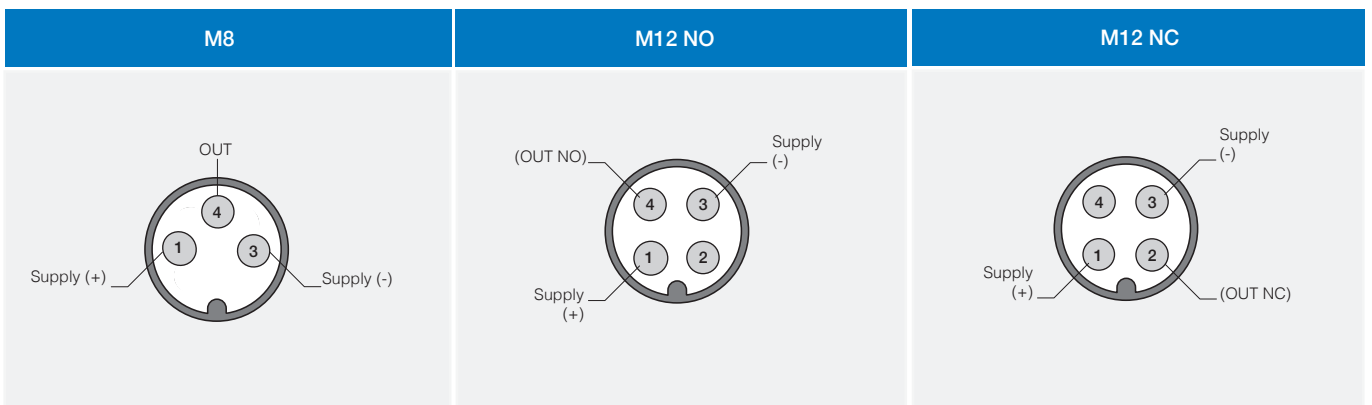
Ø 6.5 mm cylindrical

electrical diagrams of connections

3 wires versions



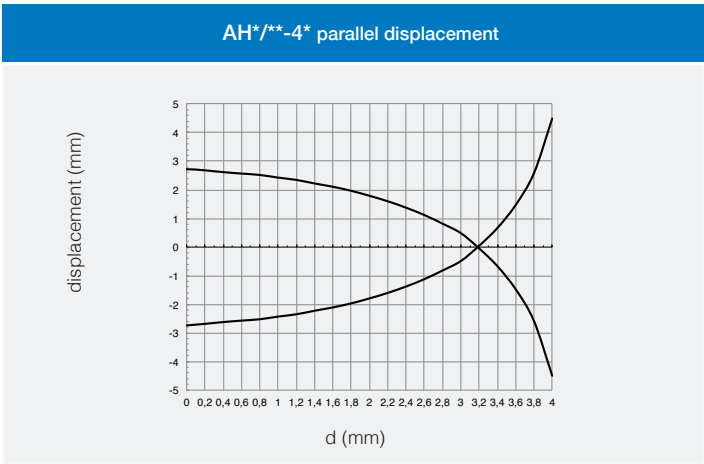
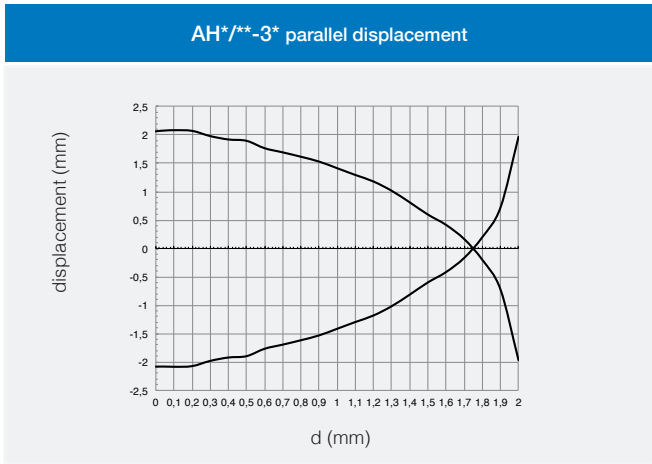
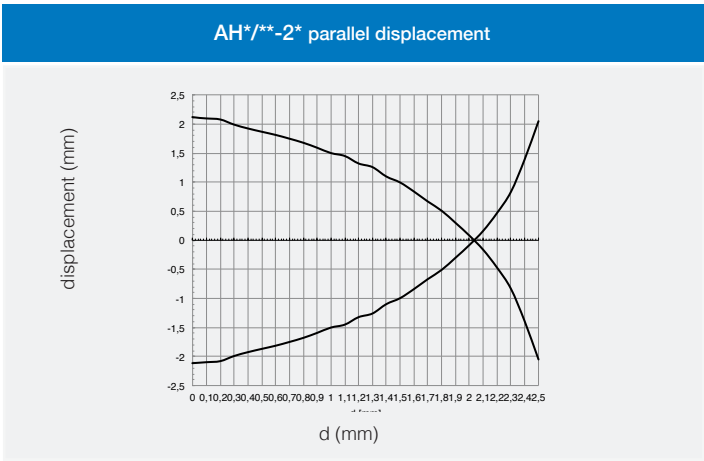
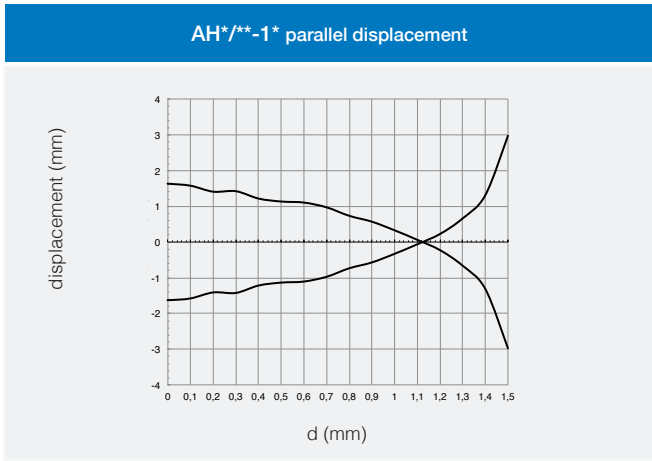
plug



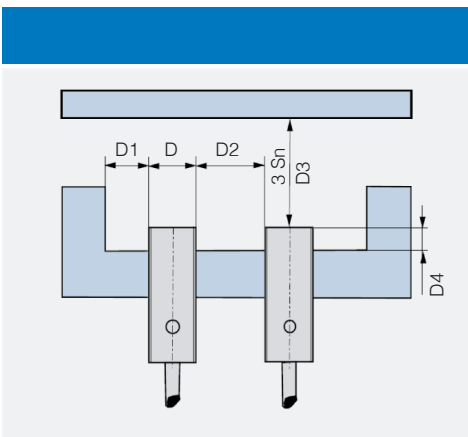
response diagram



Ø 6.5 mm cylindrical



installation



code	D4	D1	D2	D3
AH*/**-1*	≥ 1.3 mm ⁽¹⁾	≥ 3.25 mm	≥ 6.5 mm	≥ 4.5 mm
AH*/**-2*	≥ 5 mm	≥ 6.5 mm	≥ 13 mm	≥ 7.5 mm
AH*/**-3*	≥ 1.95 mm ⁽¹⁾	≥ 3.25 mm	> 6.5 mm	≥ 6 mm
AH*/**-4*	≥ 8 mm	≥ 6.5 mm	> 13 mm	≥ 12 mm

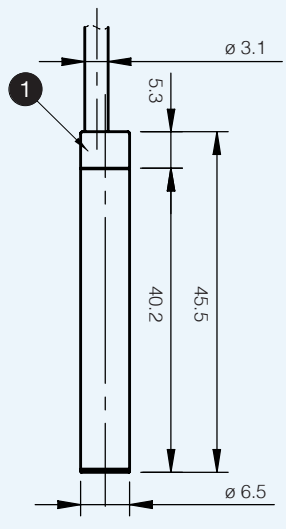
⁽¹⁾ ≥ 2,6 mm for non magnetic materials



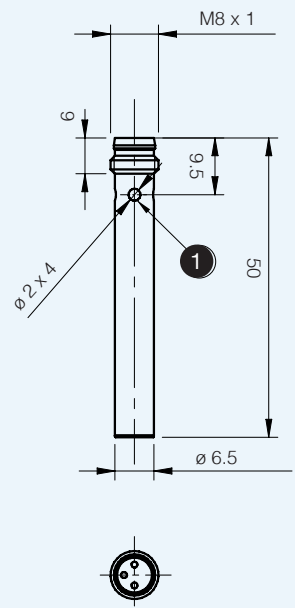
dimensions (mm)

Ø 6.5 mm cylindrical

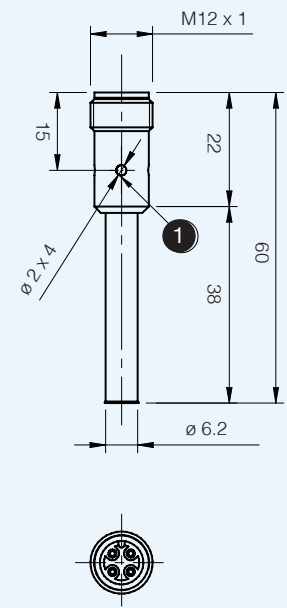
AH1/**-1A
AH1/**-3A



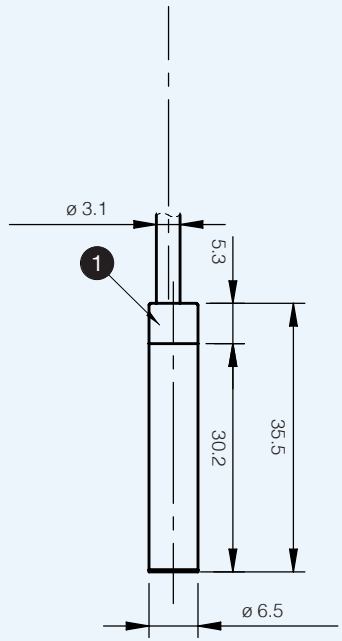
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AH1/**-3F



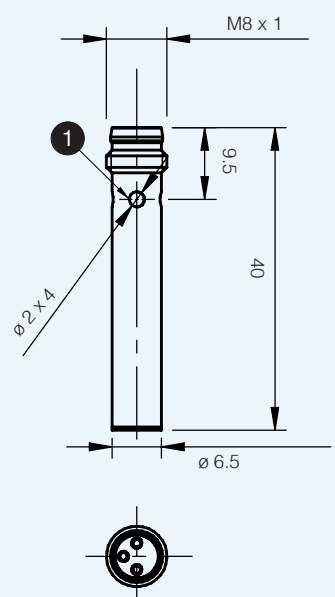
AH1/**-1H
AH1/**-3H



AH6/**-1A
AH6/**-3A



AH6/**-1F
AH6/**-3F

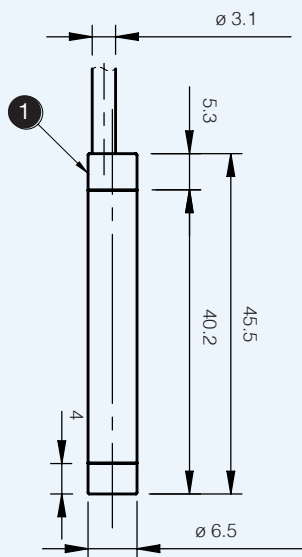


1 LED

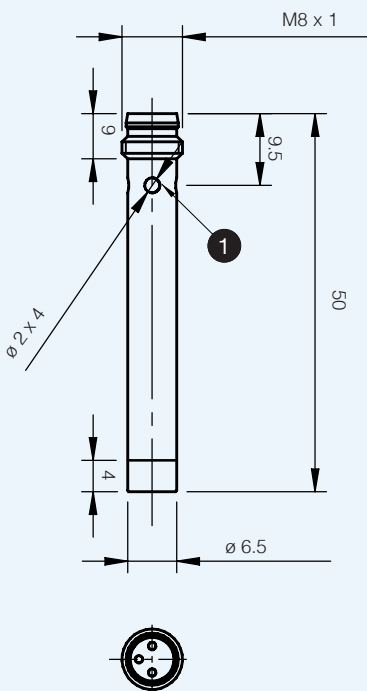


Ø 6.5 mm cylindrical

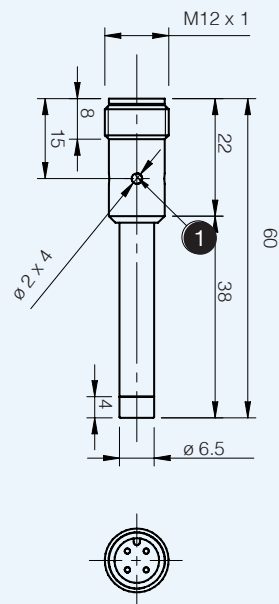
AH1/**-2A
AH1/**-4A



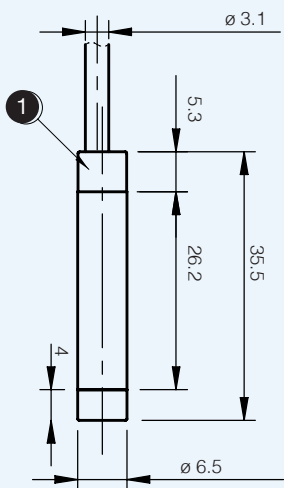
AH1/**-2F
AH1/**-4F



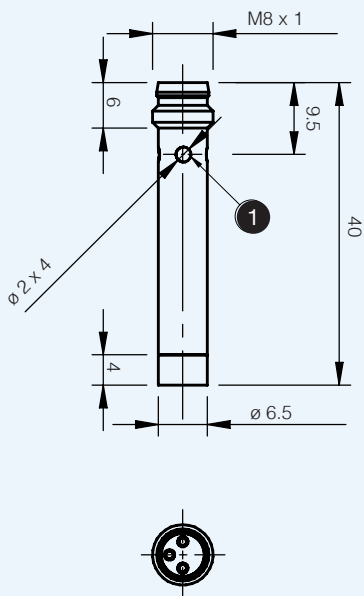
AH1/**-2H
AH1/**-4H



AH6/**-2A
AH6/**-4A



AH6/**-2F
AH6/**-4F



1 LED