



# AB series

M4 cylindrical miniaturized inductive sensors



M4 cylindrical miniaturized

## features

- Complete range of cylindrical ultraminiaturized inductive sensors M4
- IP67 protection degree



## web contents

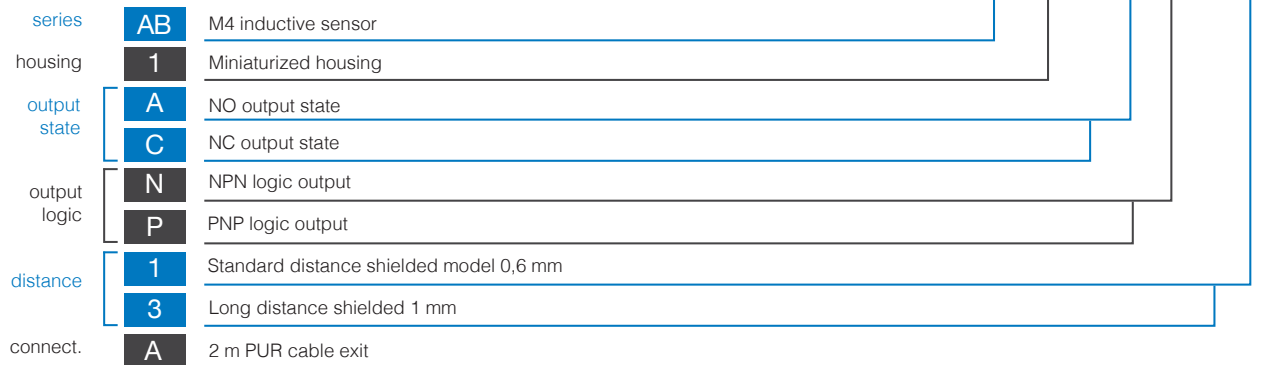


- Application notes
- Photos
- Catalogue / Manuals





## code description

AB 1 / A P - 1 A



## available models

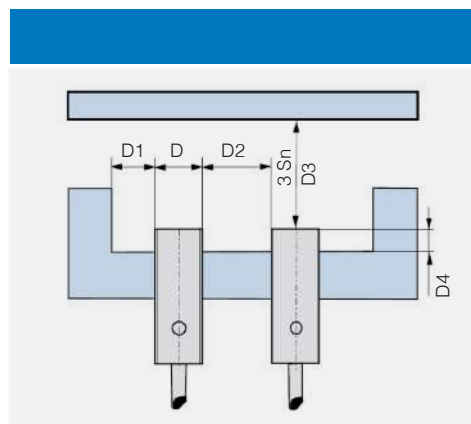
model	installation	sensing	plug	distance (mm)	PNP/NO	NPN/NO	PNP/NC	NPN/NC
M4	shielded	standard	cable	0.6 mm	AB1/AP-1A	AB1/AN-1A	AB1/CP-1A	AB1/CN-1A
		long distance		1 mm	AB1/AP-3A	AB1/AN-3A	AB1/CP-3A	AB1/CN-3A

	AB <sup>*/**</sup> -1*	AB <sup>*/**</sup> -3*
		
nominal sensing distance S <sub>n</sub>	0,6 mm	1 mm
operating distance	0...0,48 mm	0...0,81 mm
hysteresis	1...20%	
standard target	4x4 mm FE360	
repeatability	5% @UB=20...30 V; T <sub>a</sub> = 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	3 kHz	3.5 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)	
connection	2m PUR cable	

## correction factors

model	FE 360	copper	aluminium	brass	stainless steel
AB1 <sup>*/**</sup> -1*	1	0.23 ± 10%	0.26 ± 10%	0.31 ± 10%	0.52 ± 10%
AB1 <sup>*/**</sup> -3*	1	0.30 ± 10%	0.22 ± 10%	0.32 ± 10%	0.57 ± 10%

## installation



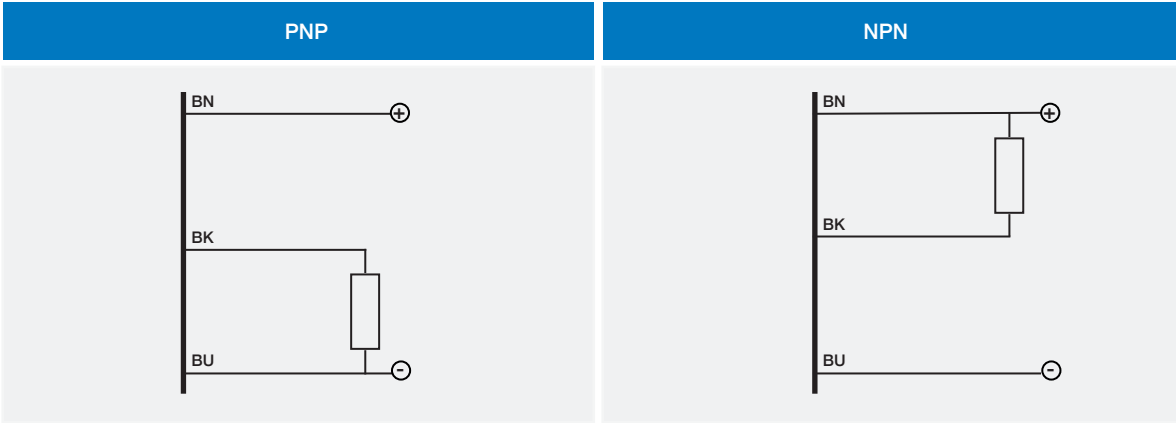
model	D4	D1	D2	D3
AC1 <sup>*/**</sup> -1*	≥ 0 mm <sup>(1)</sup>	≥ 2 mm	≥ 4 mm	≥ 1.8 mm
AC1 <sup>*/**</sup> -3*	≥ 0mm <sup>(2)</sup>	≥ 2 mm	≥ 4 mm	≥ 3 mm

<sup>(1)</sup> ≥ 2.5 mm without ferro-magnetic material  
<sup>(2)</sup> ≥ 2.5 mm without ferro-magnetic material

# electrical diagrams of connections

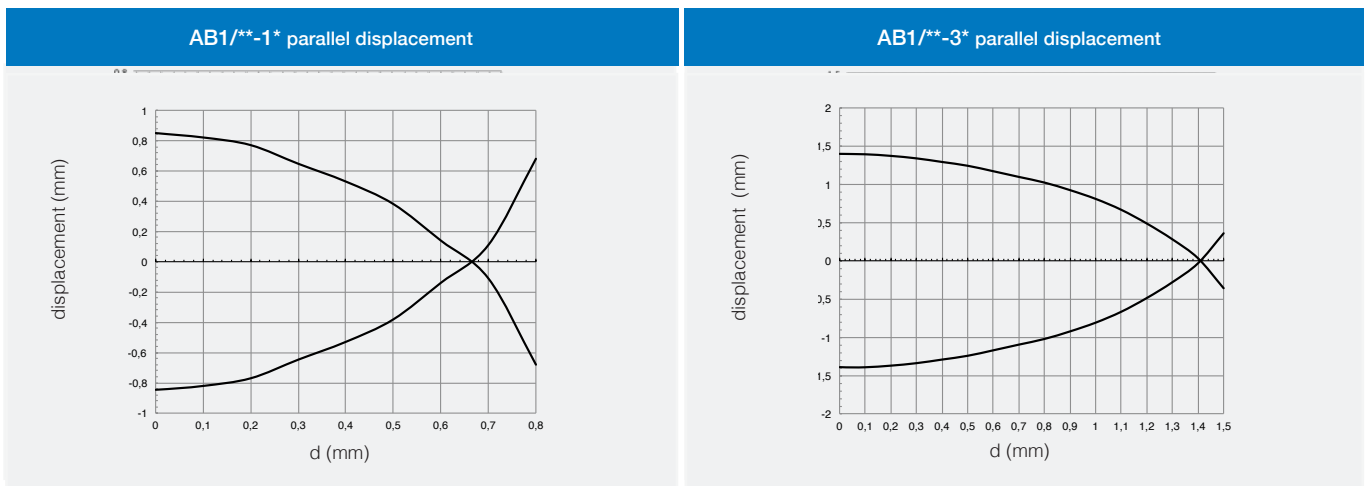


M4 cylindrical  
miniaturized



- BN brown
- BU blue
- BK black
- WH white

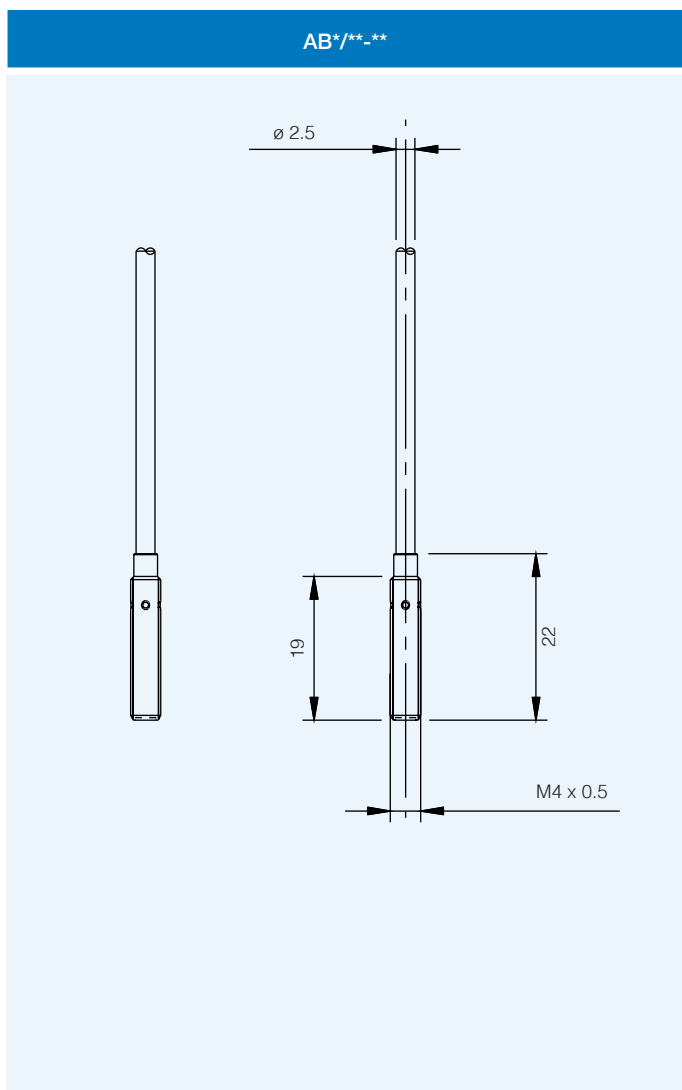
# response diagram





## dimensions (mm)

M4 cylindrical  
miniaturized



## dimensions (mm)

accessories included in all models

