



AB series

M4 cylindrical miniaturized inductive sensors



M4 cylindrical miniaturized

features

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



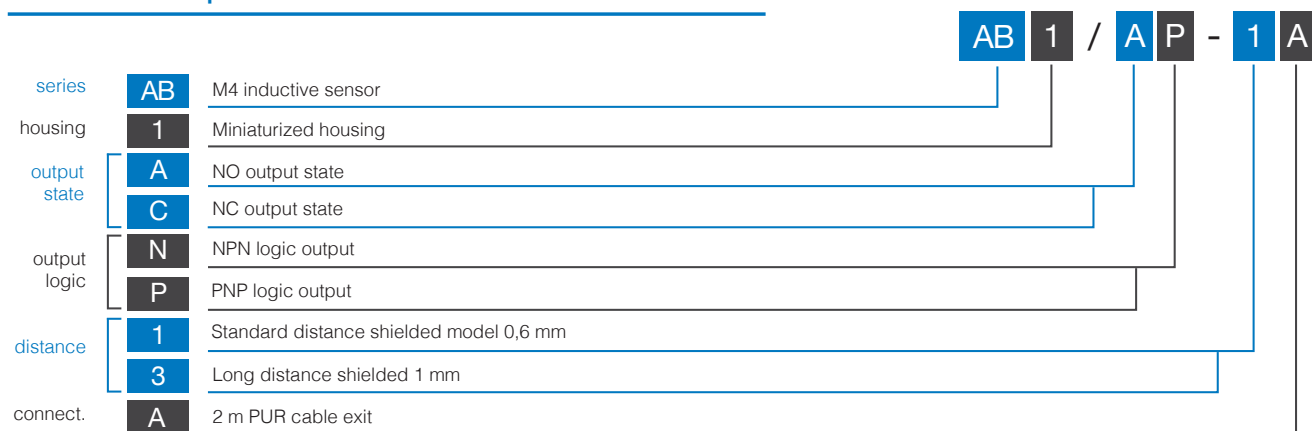
web contents



- Application notes
- Photos
- Catalogue / Manuals





code description



available models

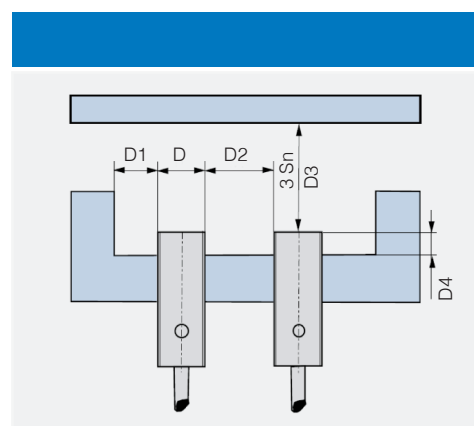
model	installation	sensing	plug	distance (mm)	PNP/NO	NPN/NO	PNP/NC	NPN/NC
M4	shielded	standard	cable	0.6 mm	AB1/AP-1A	AB1/AN-1A	AB1/CP-1A	AB1/CN-1A
		long distance		1 mm	AB1/AP-3A	AB1/AN-3A	AB1/CP-3A	AB1/CN-3A

	AB1/**-1*	AB1/**-3*
		
nominal sensing distance S_n	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; $T_a = 23^\circ\text{C} \pm 5^\circ\text{C}$	
operating voltage	10...30 Vdc	
ripple	$\leq 10\%$	
output type	NPN or PNP - NO or NC	
output current	$\leq 100 \text{ mA}$	
output voltage drop	$\leq 1.5 \text{ V @ } 100\text{mA}$	
no-load supply current	$\leq 10 \text{ mA}$	
leakage current	$\leq 10 \mu\text{A}$	
switching frequency	3 kHz	3.5 kHz
power on delay	$\leq 50 \text{ ms}$	
temperature range	$-25^\circ\text{C}...+70^\circ\text{C}$	
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/**-1*	1	$0.23 \pm 10\%$	$0.26 \pm 10\%$	$0.31 \pm 10\%$	$0.52 \pm 10\%$
AB1/**-3*	1	$0.30 \pm 10\%$	$0.22 \pm 10\%$	$0.32 \pm 10\%$	$0.57 \pm 10\%$

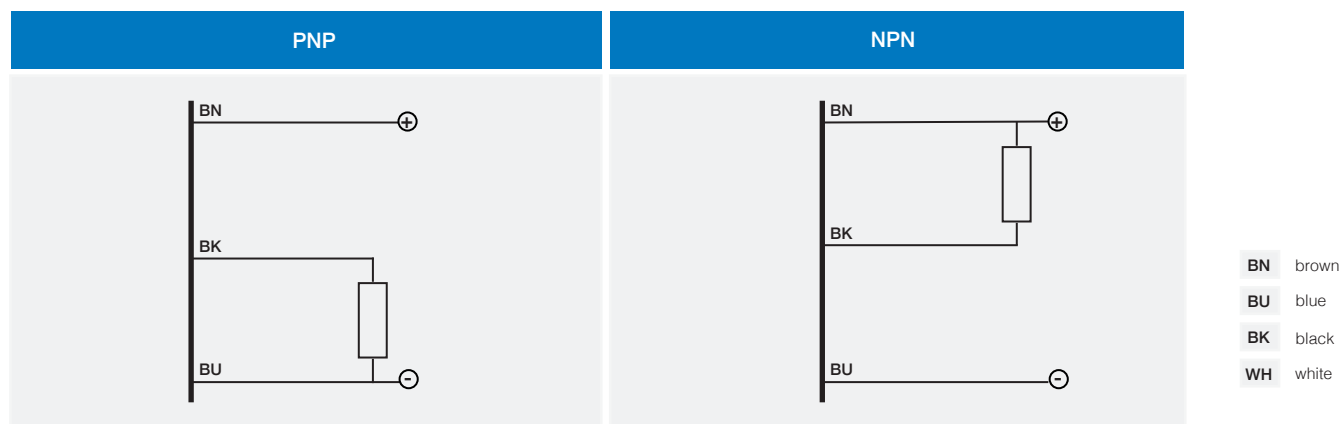
installation



model	D4	D1	D2	D3
AC1/**-1*	$\geq 0 \text{ mm}^{(1)}$	$\geq 2 \text{ mm}$	$\geq 4 \text{ mm}$	$\geq 1.8 \text{ mm}$
AC1/**-3*	$\geq 0 \text{ mm}^{(2)}$	$\geq 2 \text{ mm}$	$\geq 4 \text{ mm}$	$\geq 3 \text{ mm}$

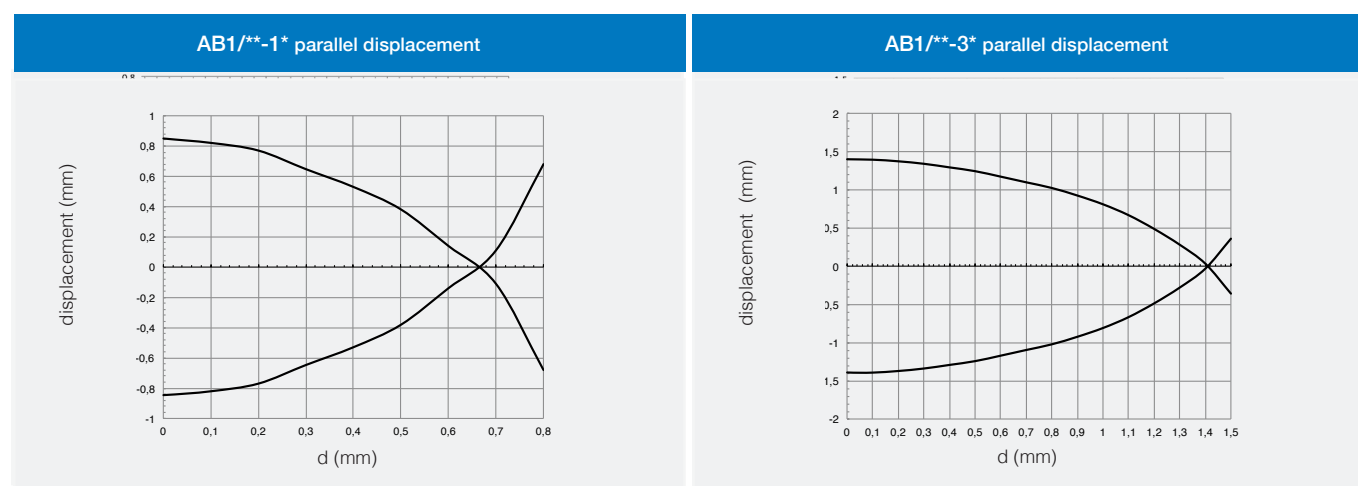
⁽¹⁾ $\geq 2.5 \text{ mm}$ without ferro-magnetic material
⁽²⁾ $\geq 2.5 \text{ mm}$ without ferro-magnetic material

electrical diagrams of connections



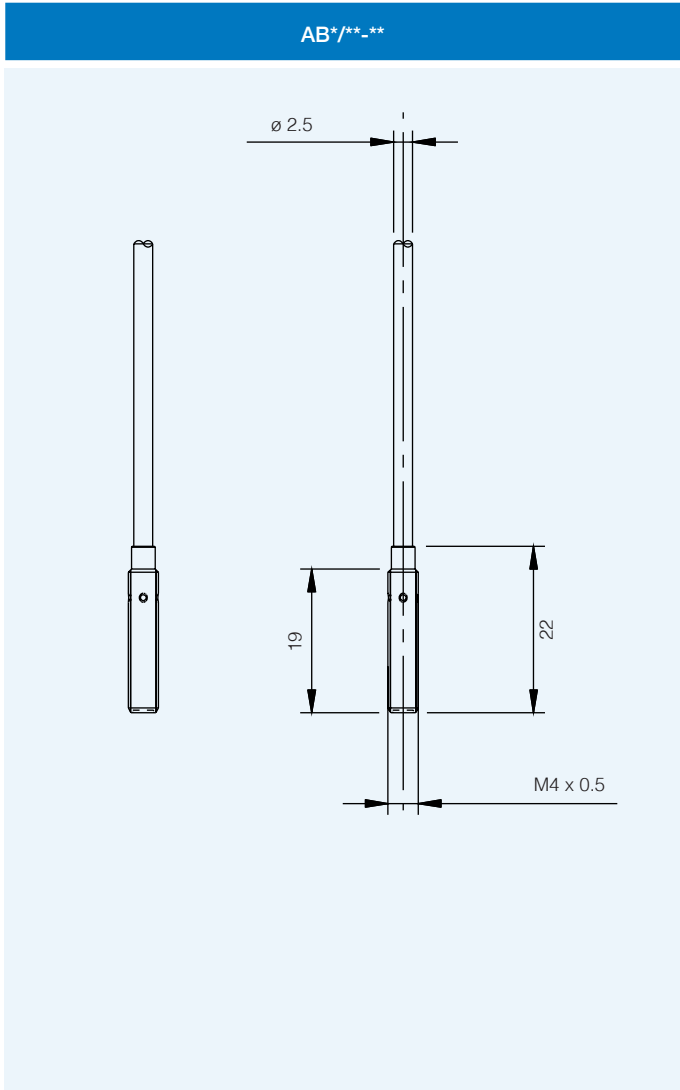
M4 cylindrical
miniaturized

response diagram



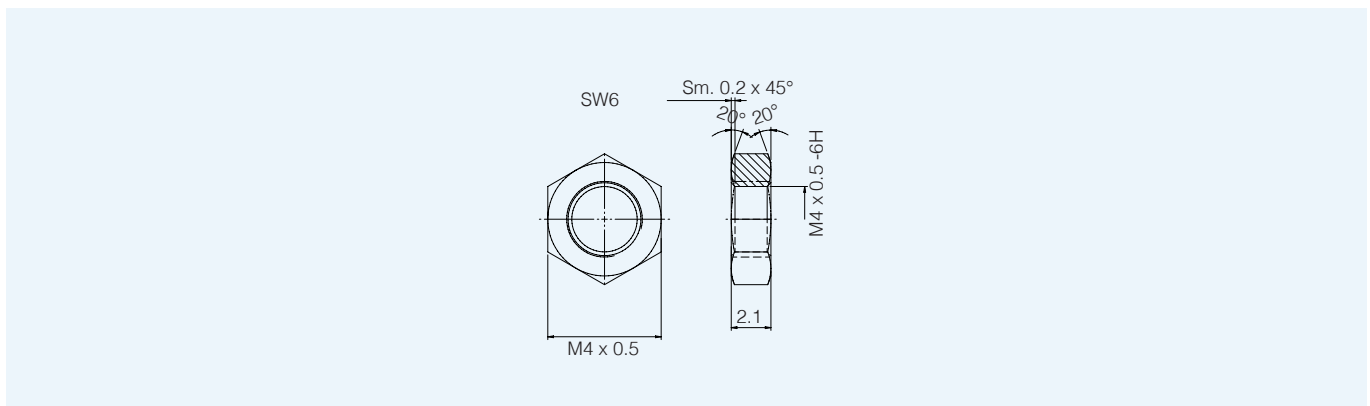
dimensions (mm)

M4 cylindrical
miniaturized



dimensions (mm)

accessories included in all models



AB