

AM6 Series / Inductive Proximity Switches

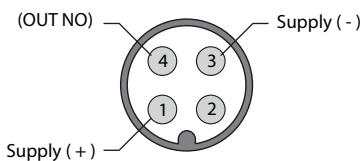
Switching Sensors



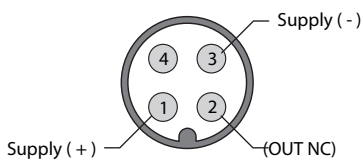
- Construction type: M12x1
- Switching distance: 2 mm / 4 mm / 8 mm
- Connection type: Cable and M12 connector
- Housing material: Brass nickel-plated
- IP67 Ingress protection
- Power supply: 10 - 30 V DC

Connector

M12 NO



M12 NC



	AM6/xx-xA	AM6/xx-xH
GENERAL DATA		
Series	AM6	
Measurement method	Induction	
Sensorfunction	Switch	
Construction type	M12x1	
Display elements	LED - output status	
MEASUREMENT DATA		
Repeat accuracy	5 %	
Temperature drift	10 %	
OUTPUTS		
Output current	≤ 200 mA	
Time delay before availability	50 ms	
Switching hysteresis	1 - 20 %	
Switching frequency	2000 Hz	
POWER SUPPLY		
Power supply	10 - 30 V DC	
No-load current	10 mA	
Short circuit protection	Yes	
Reverse polarity protection	Yes	
Induction protection	Yes	
Ripple max.	≤ 10 %	
Voltage drop	≤ 1.8 V @ 200 mA	
Leakage current	10 µA	
PHYSICAL CHARACTERISTICS		
Housing material	Brass nickel-plated	
Ingress protection	IP67	
Dimensions (ø x L)	12 x 40 mm	12 x 52.5 mm
Cable length	2000 mm	-
Weight	20 g	60 g
Sensing face	PBT (polybutylene terephthalate)	
ENVIRONMENTAL		
Operating temperature range	-25 - +70 °C	
APPROVALS		
Shock	EN 60947-5-2 / § 7.4	
Vibration	EN 60947-5-2 / § 7.4	
EMC	EN 60947-5-2 / EN 60255-5 / EN61000-4-2,3,4 Level 3	

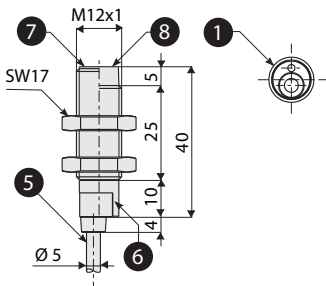
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Versions

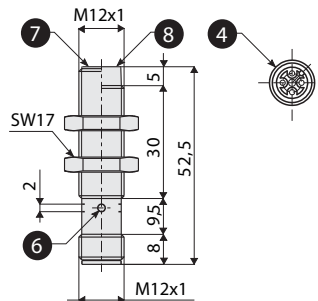
CONSTRUCTION TYPE	TYPE OF INSTALLATION	CONNECTION TYPE	SWITCHING DISTANCE	DIGITAL NPN NO	DIGITAL PNP NO	DIGITAL NPN NC	DIGITAL PNP NC
M12x1	Shielded	Cable 4-core (3 of them used)	2 mm	AM6/AN-1A	AM6/AP-1A	AM6/CN-1A	AM6/CP-1A
		M12 connector, 4-pin	2 mm	AM6/AN-1H	AM6/AP-1H	AM6/CN-1H	AM6/CP-1H
	Un-shielded	Cable 4-core (3 of them used)	4 mm	AM6/AN-2A	AM6/AP-2A	AM6/CN-2A	AM6/CP-2A
		M12 connector, 4-pin	4 mm	AM6/AN-2H	AM6/AP-2H	AM6/CN-2H	AM6/CP-2H
	Shielded	Cable 4-core (3 of them used)	4 mm	AM6/AN-3A	AM6/AP-3A	AM6/CN-3A	AM6/CP-3A
		M12 connector, 4-pin	4 mm	AM6/AN-3H	AM6/AP-3H	AM6/CN-3H	AM6/CP-3H
	Un-shielded	Cable 4-core (3 of them used)	8 mm	AM6/AN-4A	AM6/AP-4A	AM6/CN-4A	AM6/CP-4A
		M12 connector, 4-pin	8 mm	AM6/AN-4H	AM6/AP-4H	AM6/CN-4H	AM6/CP-4H

Dimensions (mm)

AM6/xx-xA



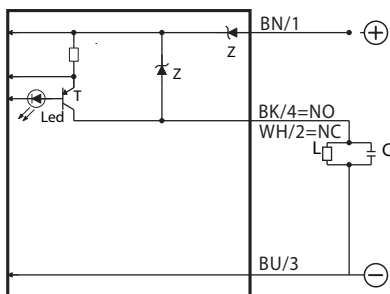
AM6/xx-xH



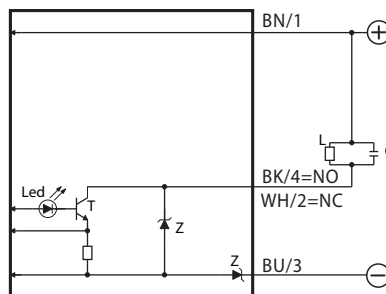
- 1: Cable, 4-core (3 of them used)
- 4: M12 connector
- 5: Cable, \varnothing 3.75 mm, PVC, 2000 mm
- 6: LED - Output status
- 7: Shielded version
- 8: Unshielded version

Electrical diagrams

PNP



NPN

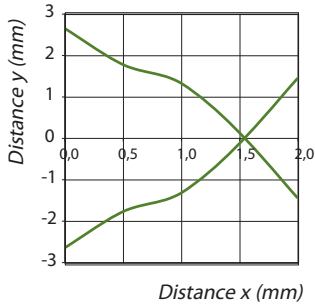


- BN: brown
- BK: black
- BU: blue
- WH: white

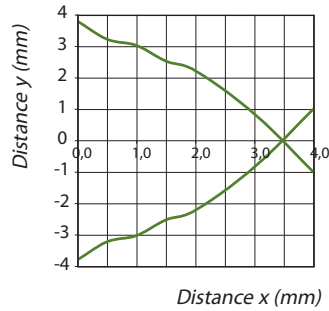
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Sensing area

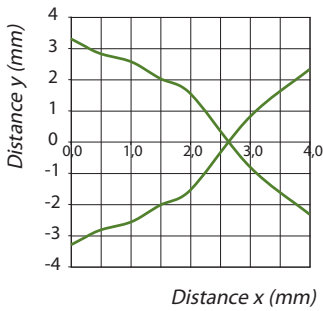
AM6/xx-1x



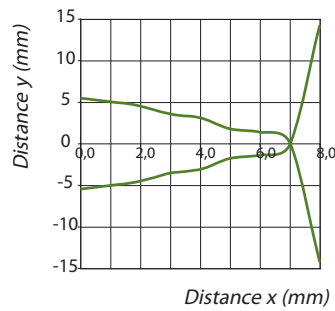
AM6/xx-3x



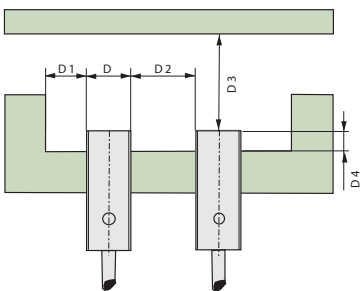
AM6/xx-2x



AM6/xx-4x



Mounting



	D4	D1	D2	D3
AM6/xx-1x	≥ 0 mm	≥ 6 mm	≥ 12 mm	≥ 6 mm
AM6/xx-2x	≥ 1.2 mm	≥ 12 mm	≥ 24 mm	≥ 12 mm
AM6/xx-3x	≥ 12 mm ⁽¹⁾	≥ 6 mm	≥ 12 mm	≥ 12 mm
AM6/xx-4x	≥ 8 mm	≥ 12 mm	≥ 24 mm	≥ 24 mm

(1) ≥ 2 mm for non-magnetic materials