

AT1 Series / Inductive Proximity Switches

Switching Sensors



- Construction type: M30x1.5
- Switching distance: 10 mm / 15 mm / 20 mm
- Connection type: Cable and M12 connector
- Housing material: Brass nickel-plated
- IP67 Ingress protection
- Power supply: 10 - 30 V DC

	AT1/xx-xA	AT1/xx-xH
GENERAL DATA		
Series	AT1	
Measurement method	Induction	
Sensorfunction	Switch	
Construction type	M30x1.5	
Display elements	LED - output status	
MEASUREMENT DATA		
Repeat accuracy	5 %	
Temperature drift	10 %	
OUTPUTS		
Output current	≤ 400 mA	
Time delay before availability	100 ms	
Switching hysteresis	1 - 20 %	
Switching frequency	<ul style="list-style-type: none"> • AT1/xx-1x - AT1/xx-3x: 200 Hz • AT1/xx-2x - AT1/xx-4x: 150 Hz 	
POWER SUPPLY		
Power supply	10 - 30 V DC	
No-load current	20 mA	
Short circuit protection	Yes	
Reverse polarity protection	Yes	
Induction protection	Yes	
Ripple max.	≤ 10 %	
Voltage drop	≤ 1 V @ 400 mA	
Leakage current	10 µA	
PHYSICAL CHARACTERISTICS		
Housing material	Brass nickel-plated	
Ingress protection	IP67	
Dimensions (ø x L)	30 x 62 mm	30 x 76 mm
Cable length	2000 mm	-
Weight	70 g	30 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	

AT1 Series / Inductive Proximity Switches

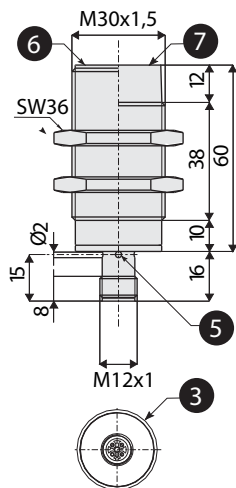
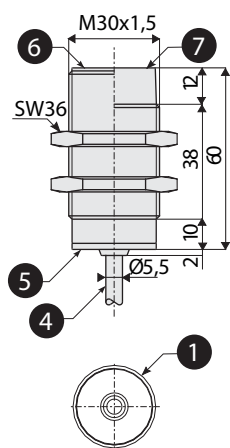
Versions

CONSTRUCTION TYPE	TYPE OF INSTALLATION	CONNECTION TYPE	SWITCHING DISTANCE	DIGITAL NPN NO	DIGITAL PNP NO	DIGITAL NPN NC	DIGITAL PNP NC
M30x1.5	Shielded	Cable, 4-core (3 of them used)	10 mm	AT1/AN-1A	AT1/AP-1A	AT1/CN-1A	AT1/CP-1A
		M12 connector, 4-pin (3 of them used)	10 mm	AT1/AN-1H	AT1/AP-1H	AT1/CN-1H	AT1/CP-1H
	Unshielded	Cable, 4-core (3 of them used)	15 mm	AT1/AN-2A	AT1/AP-2A	AT1/CN-2A	AT1/CP-2A
		M12 connector, 4-pin (3 of them used)	15 mm	AT1/AN-2H	AT1/AP-2H	AT1/CN-2H	AT1/CP-2H
	Shielded	Cable, 4-core (3 of them used)	15 mm	AT1/AN-3A	AT1/AP-3A	AT1/CN-3A	AT1/CP-3A
		M12 connector, 4-pin (3 of them used)	15 mm	AT1/AN-3H	AT1/AP-3H	AT1/CN-3H	AT1/CP-3H
	Unshielded	Cable, 4-core (3 of them used)	20 mm	AT1/AN-4A	AT1/AP-4A	AT1/CN-4A	AT1/CP-4A
		M12 connector, 4-pin (3 of them used)	20 mm	AT1/AN-4H	AT1/AP-4H	AT1/CN-4H	AT1/CP-4H
CONSTRUCTION TYPE	TYPE OF INSTALLATION	CONNECTOR TYPE	SWITCHING DISTANCE	DIGITAL NPN NO / NC		DIGITAL PNP NO / NC	
M30x1.5	Shielded	M12 connector, 4-pin	10 mm	AT1/ON-1H		AT1/OP-1H	
	Unshielded		15 mm	AT1/ON-2H		AT1/OP-2H	
	Shielded		15 mm	AT1/ON-3H		AT1/OP-3H	
	Unshielded		20 mm	AT1/ON-4H		AT1/OP-4H	

Dimensions (mm)

AT1/xx-xA

AT1/xx-xH

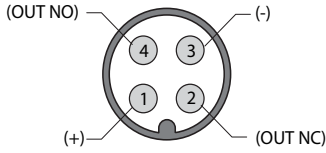


- 1: Cable, 4-core (3 of them used)
- 3: M12 connector, 4-pin
- 4: Cable, Ø 5.5 mm, 2000 mm
- 5: LED - Output status
- 6: Shielded version
- 7: Unshielded version

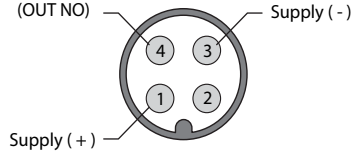
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Connector

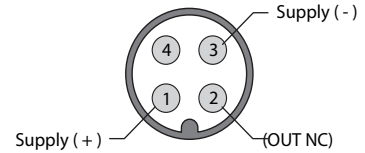
M12 NO / NC - AT1-Ox-xH



M12 NO - AT1-xx-xx

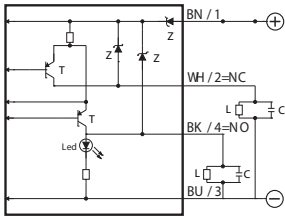


M12 NC - AT1-xx-xx

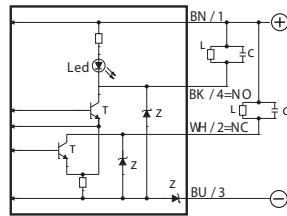


Electrical diagrams

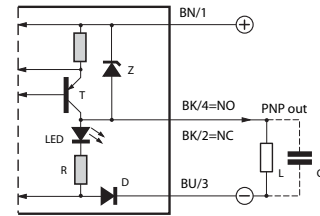
PNP - 4 wires



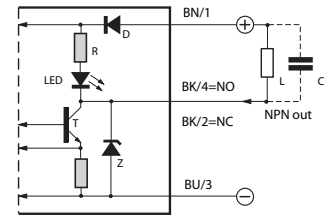
NPN - 4 wires



PNP - 3 wires



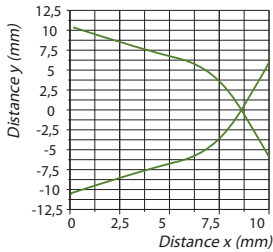
NPN - 3 wires



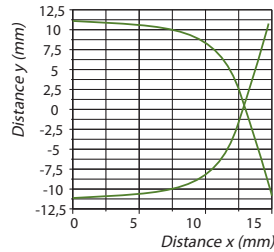
BN: brown • BK: black • BU: blue • WH: white

Sensing area

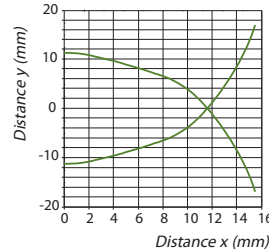
AT1/xx-1x



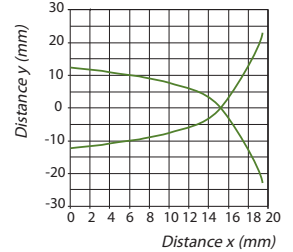
AT1/xx-2x



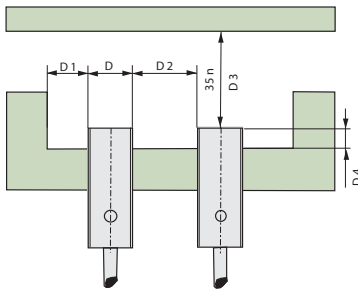
AT1/xx-3x



AT1/xx-4x



Mounting



	D4	D1	D2	D3
AT1/xx-1x	≥ 0 mm	≥ 10 mm	≥ 30 mm	≥ 30 mm
AT1/xx-2x	≥ 18 mm ⁽¹⁾	≥ 15 mm	≥ 45 mm	≥ 45 mm
AT1/xx-3x	≥ 3 mm	≥ 15 mm	≥ 40 mm	≥ 45 mm
AT1/xx-4x	≥ 20 mm ⁽¹⁾	≥ 20 mm	≥ 60 mm	≥ 60 mm

(1) ≥ 9 mm for non-magnetic materials