M12 Inductive DC Proximity Switches AM1/AM6

IMO

Compact inductive proximity switches for DC operation

- ø12 x 50mm and ø12 x 43.5mm
- Shielded and unshielded models
- IP67 nickel-plated brass housing
- Short-circuit protection
- LED status indicator 360˚ visible
- 2 wire DC (AM1)
- Additional cable exit options available
- Nominal sensing range: Shielded 2mm
Unshielded 4mm
- Long distance AM1: Shielded 4mm
Unshielded 8mm
- UL and CUL approved

3 YEAR GUARANTEE

Options and ordering codes

AM1 / AN - 1A

Standard proximity	AM1
ø12mm short version	AM6

NO output state	A
NC output state	C

NPN output type	N
PNP output type	P
2 wire AM1 only	O

Shielded	1
Unshielded	2
Long distance shielded	3
Long distance unshielded	4

Standard cable exit	A
M12 plug cable exit	H

Specification

Model	AM1/AM6
Hysteresis	10% maximum
Repeatability	5%
Supply voltage	10-30 VDC
Ripple	10% maximum
Maximum consumption	20mA
Switching frequency	AM1:2kHz, AM6:1kHz*
Output type	NPN or PNP
Output state	NO or NC
Load current	≤ 200mA
Residual output voltage	1.2V max. IL=100mA
Leakage current	<10μA
Time delay before availbility	100ms
Output current limit	250-300mA†
Short circuit protection	autoreset
Polarity reversal protection	yes
Inductive loads protection	yes
LED status indicator	yes (at the rear)
Insulation resistance	>1000mΩ to 1000VDC
Dielectric strength	1500VAC 50Hz for 1 min
Protection degree	IP67
Temperature range	-25˚ +70˚C
Temperature drift	10% Sn
Housing material	nickel-plated brass
Front material	PBT
Tightening torque	15 Nm max
Ambient humidity	35%-85% r.h.
Weight (approx.)	65g

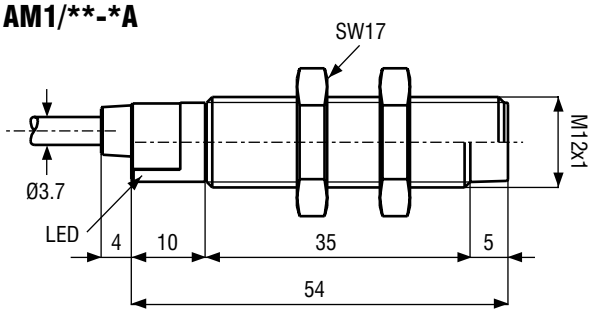
M12 Inductive DC Proximity Switches
AM1/AM6 continued

Dimensions (mm)

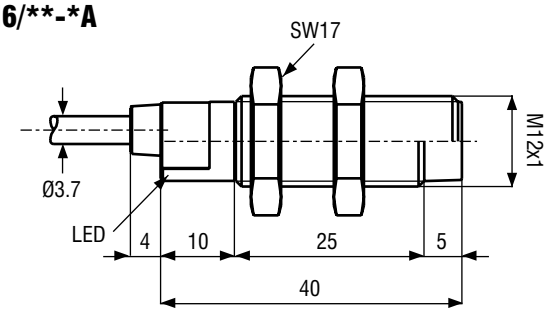
Standard cable exit

Cable: ø3.75mm, 2m length, 0.34mm² conductor section, PVC material

AM1/-*A**

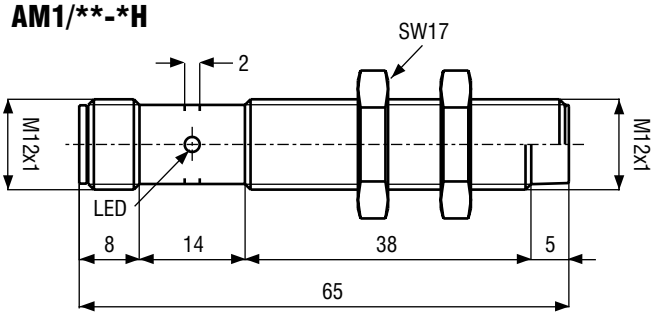


AM6/-*A**

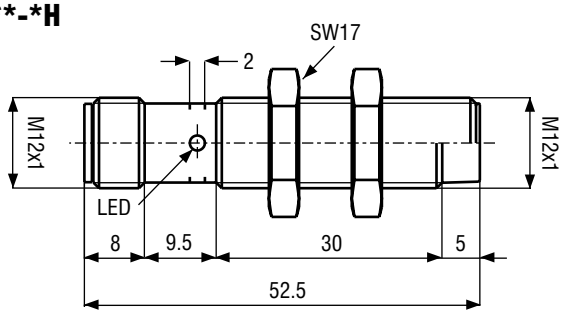


M12 plug cable exit

AM1/-*H**

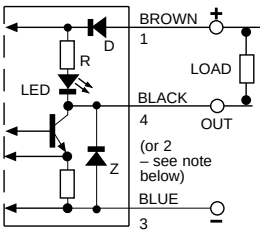


AM6/-*H**

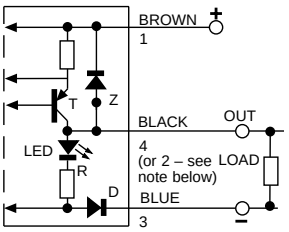


Output circuit - wiring connections

NPN output

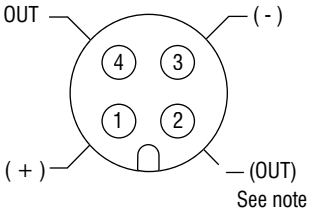


PNP output



NOTE: in case of combined load, i.e. resistive and capacitive, the maximum admissible capacity (C) is 0.05μF for maximum output voltage and current.

M12 plug - pin connections Cable exit option H



Other cable options:
Right angle cable
M8 Plug cable exit
Customised cables
Please contact IMO for price and availability

NOTE: (pin connections): At present, all plug exit sensors have the output on pin 4. According to EEC Directives, the output of NC plug exit models will be changing to pin 2 (NO will remain on pin 4). A plug cable to match these NC sensors MUST be a 4-wire type as 3-wire cables are connected to pins 1, 3 and 4 – contact IMO to check stock types.