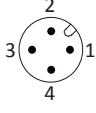


M18 METAL BARREL SERIES

ARTICLE PROPERTIES

<b>SENSOR TYPE</b>	Capacitive sensor	<b>CONNECTION TYPES</b> (see table)	
<b>SIZE</b>	M18x1	<ul style="list-style-type: none"> <li>• cable PVC, 0.34 mm<sup>2</sup>, 2 m**</li> <li>• M12 connector, A-coded</li> </ul>	
<b>RATED OPERATING DISTANCE</b>	see table		
<b>NUMBER OF CONDUCTORS</b>	2-wire / 3-wire / 4-wire (see table)		

\*\* other cable lengths are available on request

MECHANICAL DATA

<b>MOUNTING</b> (mounting nuts included in delivery)	flush/non-flush (see table)
<b>HOUSING</b>	threaded cylindrical
<b>MATERIAL HOUSING</b>	brass nickel-plated
<b>MATERIAL SENSING SURFACE</b>	PBT
<b>TIGHTENING TORQUE LOCKING</b>	10 Nm
<b>STANDARD TEST</b>	FE360

ELECTRICAL DATA

<b>OPERATING VOLTAGE</b>	DC: 10 ... 30 V DC AC: 20 ... 250 V AC
<b>RATED OPERATING CURRENT</b>	2-wire AC: ≤ 200 mA 3-wire: ≤ 200 mA 4-wire: ≤ 200 mA
<b>SWITCHING FREQUENCY</b>	see table
<b>SWITCHING OUTPUT</b>	see table
<b>FUNCTION INDICATOR</b>	yellow LED
<b>HYSTERESIS</b>	3 ... 15 %
<b>TEMPERATURE DRIFT</b>	±10 %
<b>SHORT-CIRCUIT PROTECTION</b>	yes
<b>OVERLOAD RESISTANCE</b>	yes
<b>REVERSE POLARITY PROTECTION</b>	yes

ENVIRONMENTAL CONDITIONS

<b>PROTECTION CLASS</b>	IP67	<b>VIBRATION RESISTANCE (EN 60068-2-27)</b>	50 Hz, 1 mm
<b>AMBIENT TEMPERATURE</b>	-25 ... 70 °C	<b>SHOCK RESISTANCE (EN 60068-2-6)</b>	30g/11 ms

STANDARDS AND DIRECTIVES

<b>LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR</b>	DIN EN IEC 60947-5-2:2021-04
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APPROVALS



## M18 METAL BARREL SERIES

## AC 2-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
FC5-M18-OSA3L	flush	5 mm	AC NO (WD3)	15 Hz	see Fig. 1
FC5-M18-CSA3L	flush	5 mm	AC NC (WD4)	15 Hz	see Fig. 1
NC8-M18-OSA3L	non-flush	8 mm	AC NO (WD3)	15 Hz	see Fig. 2
NC8-M18-CSA3L	non-flush	8 mm	AC NC (WD4)	15 Hz	see Fig. 2

## AC 2-WIRE OUTPUT M12 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
FC5-M18-OSA3L-Q12	flush	5 mm	AC NO (WD3)	15 Hz	see Fig. 5
FC5-M18-CSA3L-Q12	flush	5 mm	AC NC (WD4)	15 Hz	see Fig. 5
NC8-M18-OSA3L-Q12	non-flush	8 mm	AC NO (WD3)	15 Hz	see Fig. 6
NC8-M18-CSA3L-Q12	non-flush	8 mm	AC NC (WD4)	15 Hz	see Fig. 6

## DC 3-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
FC5-M18-OP6L	flush	5 mm	PNP NO (WD5)	50 Hz	see Fig. 3
FC5-M18-ON6L	flush	5 mm	NPN NO (WD6)	50 Hz	see Fig. 3
FC5-M18-CP6L	flush	5 mm	PNP NC (WD7)	50 Hz	see Fig. 3
FC5-M18-CN6L	flush	5 mm	NPN NC (WD8)	50 Hz	see Fig. 3
NC8-M18-OP6L	non-flush	8 mm	PNP NO (WD5)	50 Hz	see Fig. 4
NC8-M18-ON6L	non-flush	8 mm	NPN NO (WD6)	50 Hz	see Fig. 4
NC8-M18-CP6L	non-flush	8 mm	PNP NC (WD7)	50 Hz	see Fig. 4
NC8-M18-CN6L	non-flush	8 mm	NPN NC (WD8)	50 Hz	see Fig. 4

## DC 3-WIRE OUTPUT M12 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
FC5-M18-OP6L-Q12	flush	5 mm	PNP NO (WD5)	50 Hz	see Fig. 7
FC5-M18-ON6L-Q12	flush	5 mm	NPN NO (WD6)	50 Hz	see Fig. 7
FC5-M18-CP6L-Q12	flush	5 mm	PNP NC (WD7)	50 Hz	see Fig. 7
FC5-M18-CN6L-Q12	flush	5 mm	NPN NC (WD8)	50 Hz	see Fig. 7
NC8-M18-OP6L-Q12	non-flush	8 mm	PNP NO (WD5)	50 Hz	see Fig. 8
NC8-M18-ON6L-Q12	non-flush	8 mm	NPN NO (WD6)	50 Hz	see Fig. 8
NC8-M18-CP6L-Q12	non-flush	8 mm	PNP NC (WD7)	50 Hz	see Fig. 8
NC8-M18-CN6L-Q12	non-flush	8 mm	NPN NC (WD8)	50 Hz	see Fig. 8

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## DC 4-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
FC5-M18-BP6L	flush	5 mm	PNP NO+NC (WD9)	50 Hz	<i>see Fig. 3</i>
FC5-M18-BN6L	flush	5 mm	NPN NO+NC (WD10)	50 Hz	<i>see Fig. 3</i>
NC8-M18-BP6L	non-flush	8 mm	PNP NO+NC (WD9)	50 Hz	<i>see Fig. 4</i>
NC8-M18-BN6L	non-flush	8 mm	NPN NO+NC (WD10)	50 Hz	<i>see Fig. 4</i>

## DC 4-WIRE OUTPUT M12 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
FC5-M18-BP6L-Q12	flush	5 mm	PNP NO+NC (WD9)	50 Hz	<i>see Fig. 7</i>
FC5-M18-BN6L-Q12	flush	5 mm	NPN NO+NC (WD10)	50 Hz	<i>see Fig. 7</i>
NC8-M18-BP6L-Q12	non-flush	8 mm	PNP NO+NC (WD9)	50 Hz	<i>see Fig. 8</i>
NC8-M18-BN6L-Q12	non-flush	8 mm	NPN NO+NC (WD10)	50 Hz	<i>see Fig. 8</i>

M18 METAL BARREL SERIES

DIMENSIONS

Fig. 1 Capacitive sensor with cable (flush)

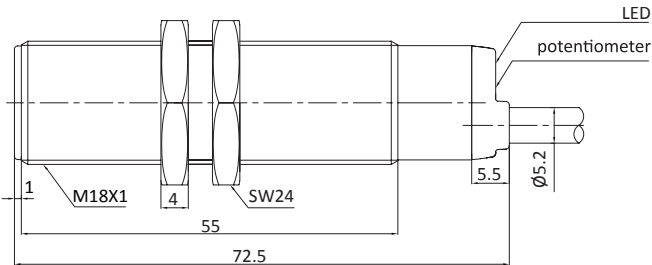


Fig. 2 Capacitive sensor with cable (non-flush)

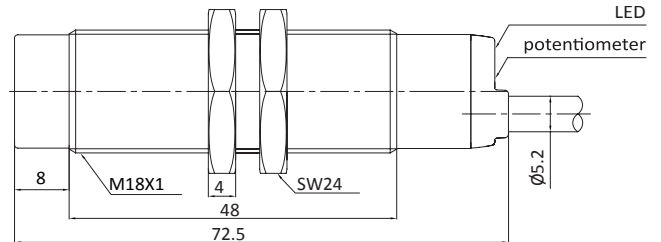


Fig. 3 Capacitive sensor with cable (flush)

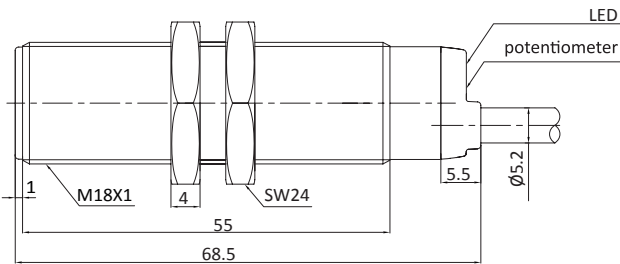


Fig. 4 Capacitive sensor with cable (non-flush)

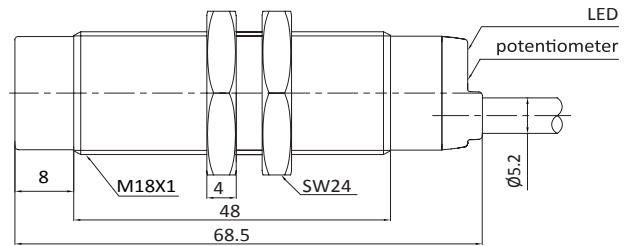


Fig. 5 Capacitive sensor with M12 connector (flush)

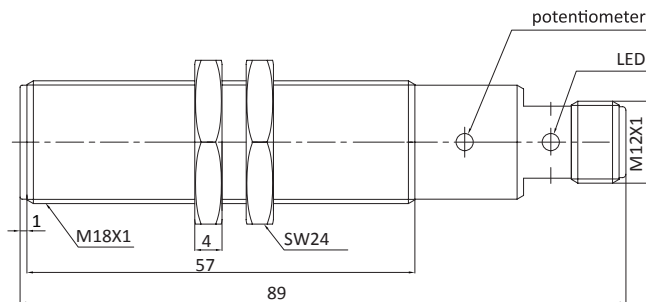


Fig. 6 Capacitive sensor with M12 connector (non-flush)

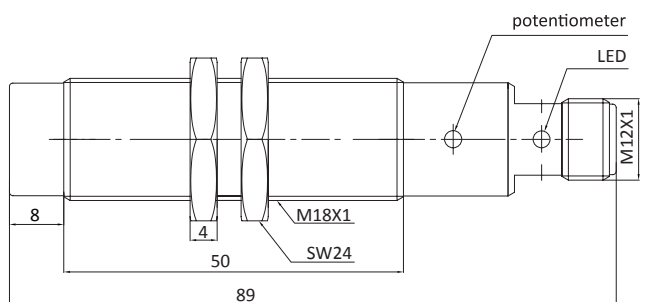


Fig. 7 Capacitive sensor with M12 connector (flush)

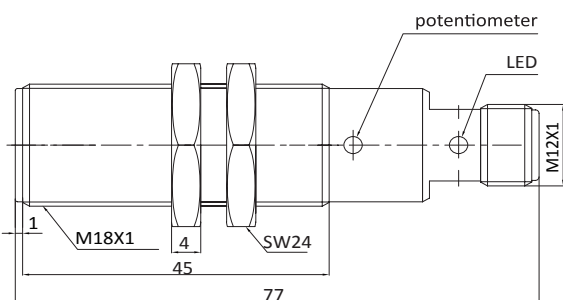
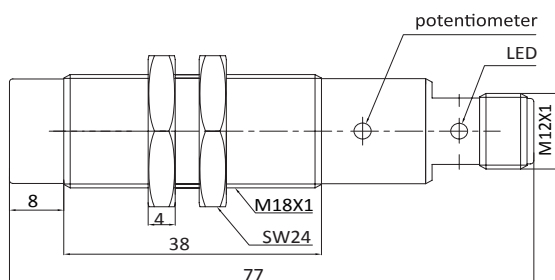


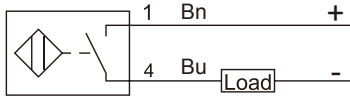
Fig. 8 Capacitive sensor with M12 connector (non-flush)



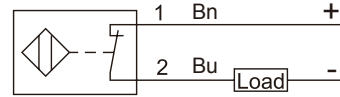
M18 METAL BARREL SERIES

WIRING DIAGRAMS (Note: 1 / 2 / 3 / 4 connector and terminals pin number Bn / Bu / Wh / Bk cable color)

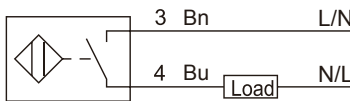
**WD1 DC 2-wire NO**



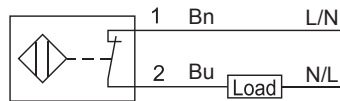
**WD2 DC 2-wire NC**



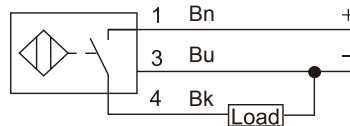
**WD3 AC 2-wire NO**



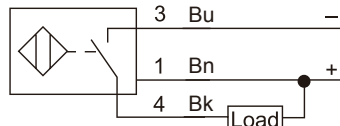
**WD4 AC 2-wire NC**



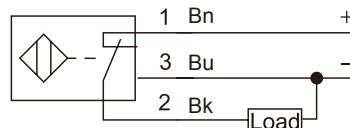
**WD5 DC 3-wire PNP NO**



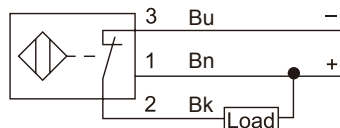
**WD6 DC 3-wire NPN NO**



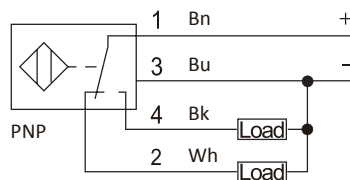
**WD7 DC 3-wire PNP NC**



**WD8 DC 3-wire NPN NC**



**WD9 DC 4-wire PNP NO + NC**



**WD10 DC 4-wire NPN NO + NC**

