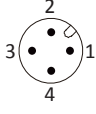


M30 METAL BARREL SERIES

ARTICLE PROPERTIES

SENSOR TYPE	Capacitive sensor	CONNECTION TYPES (see table)	
SIZE	M30x1.5	<ul style="list-style-type: none"> • cable PVC, 0.34 mm², 2 m** • M12 connector, A-coded 	
RATED OPERATING DISTANCE	see table		
NUMBER OF CONDUCTORS	2-wire / 3-wire / 4-wire (see table)		

** other cable lengths are available on request

MECHANICAL DATA

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

ELECTRICAL DATA

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

ENVIRONMENTAL CONDITIONS

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

STANDARDS AND DIRECTIVES

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



M30 METAL BARREL SERIES

AC 2-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
FC10-M30-OSA3L	flush	10 mm	AC NO (WD3)	15 Hz	see Fig. 1
FC10-M30-CSA3L	flush	10 mm	AC NC (WD4)	15 Hz	see Fig. 1
NC15-M30-CSA3L	non-flush	15 mm	AC NO (WD3)	15 Hz	see Fig. 2
NC15-M30-OSA3L	non-flush	15 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
FC10-M30-OSA3L-Q12	flush	10 mm	AC NO (WD3)	15 Hz	see Fig. 5
FC10-M30-CSA3L-Q12	flush	10 mm	AC NC (WD4)	15 Hz	see Fig. 5
NC15-M30-CSA3L-Q12	non-flush	15 mm	AC NO (WD3)	15 Hz	see Fig. 6
NC15-M30-OSA3L-Q12	non-flush	15 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
FC10-M30-OP6L	flush	10 mm	PNP NO (WD5)	50 Hz	see Fig. 3
FC10-M30-ON6L	flush	10 mm	NPN NO (WD6)	50 Hz	see Fig. 3
FC10-M30-CP6L	flush	10 mm	PNP NC (WD7)	50 Hz	see Fig. 3
FC10-M30-CN6L	flush	10 mm	NPN NC (WD8)	50 Hz	see Fig. 3
NC15-M30-OP6L	non-flush	15 mm	PNP NO (WD5)	50 Hz	see Fig. 4
NC15-M30-ON6L	non-flush	15 mm	NPN NO (WD6)	50 Hz	see Fig. 4
NC15-M30-CP6L	non-flush	15 mm	PNP NC (WD7)	50 Hz	see Fig. 4
NC15-M30-CN6L	non-flush	15 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
FC10-M30-OP6L-Q12	flush	10 mm	PNP NO (WD5)	50 Hz	see Fig. 7
FC10-M30-ON6L-Q12	flush	10 mm	NPN NO (WD6)	50 Hz	see Fig. 7
FC10-M30-CP6L-Q12	flush	10 mm	PNP NC (WD7)	50 Hz	see Fig. 7
FC10-M30-CN6L-Q12	flush	10 mm	NPN NC (WD8)	50 Hz	see Fig. 7
NC15-M30-OP6L-Q12	non-flush	15 mm	PNP NO (WD5)	50 Hz	see Fig. 8
NC15-M30-ON6L-Q12	non-flush	15 mm	NPN NO (WD6)	50 Hz	see Fig. 8
NC15-M30-CP6L-Q12	non-flush	15 mm	PNP NC (WD7)	50 Hz	see Fig. 8
NC15-M30-CN6L-Q12	non-flush	15 mm	NPN NC (WD8)	50 Hz	see Fig. 8

M30 METAL BARREL SERIES

DC 4-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
FC10-M30-BP6L	flush	10 mm	PNP NO+NC (WD9)	50 Hz	<i>see Fig. 3</i>
FC10-M30-BN6L	flush	10 mm	NPN NO+NC (WD10)	50 Hz	<i>see Fig. 3</i>
NC15-M30-BP6L	non-flush	15 mm	PNP NO+NC (WD9)	50 Hz	<i>see Fig. 4</i>
NC15-M30-BN6L	non-flush	15 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
FC10-M30-BP6L-Q12	flush	10 mm	PNP NO+NC (WD9)	50 Hz	<i>see Fig. 7</i>
FC10-M30-BN6L-Q12	flush	10 mm	NPN NO+NC (WD10)	50 Hz	<i>see Fig. 7</i>
NC15-M30-BP6L-Q12	non-flush	15 mm	PNP NO+NC (WD9)	50 Hz	<i>see Fig. 8</i>
NC15-M30-BN6L-Q12	non-flush	15 mm	NPN NO+NC (WD10)	50 Hz	<i>see Fig. 8</i>

M30 METAL BARREL SERIES

DIMENSIONS

Fig. 1 Capacitive sensor with cable (flush)

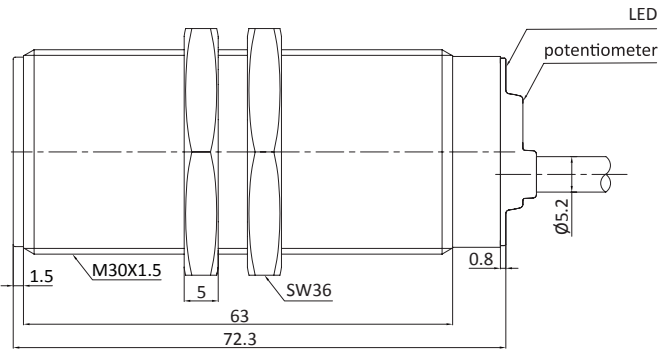


Fig. 2 Capacitive sensor with cable (non-flush)

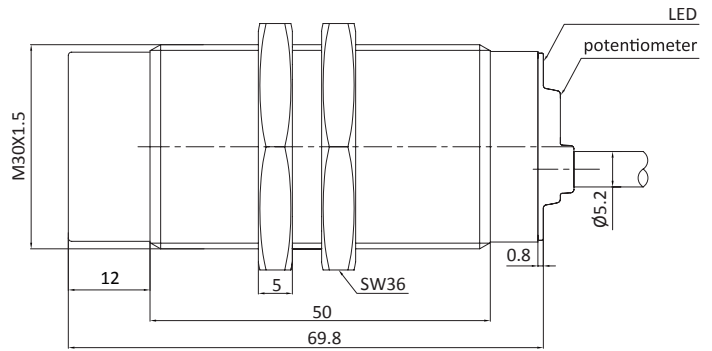


Fig. 3 Capacitive sensor with cable (flush)

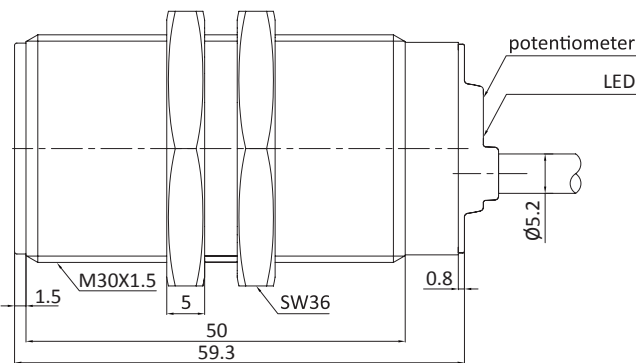


Fig. 4 Capacitive sensor with cable (non-flush)

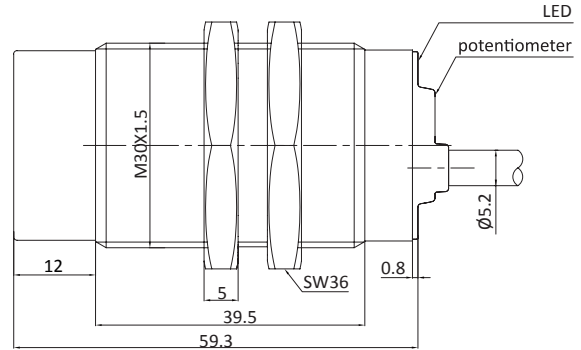


Fig. 5 Capacitive sensor with M12 connector (flush)

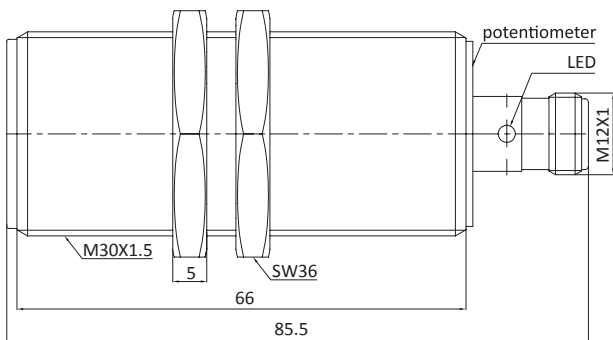
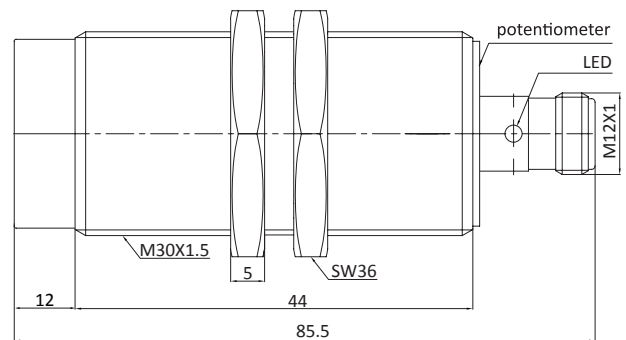


Fig. 6 Capacitive sensor with M12 connector (non-flush)



M30 METAL BARREL SERIES

DIMENSIONS

Fig. 7 Capacitive sensor with M12 connector (flush)

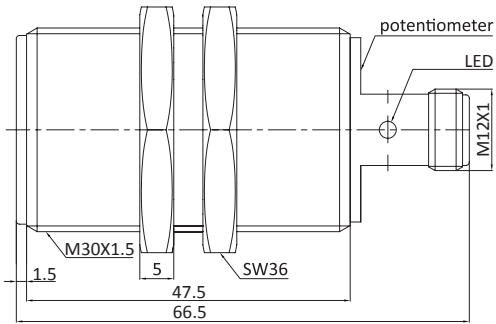
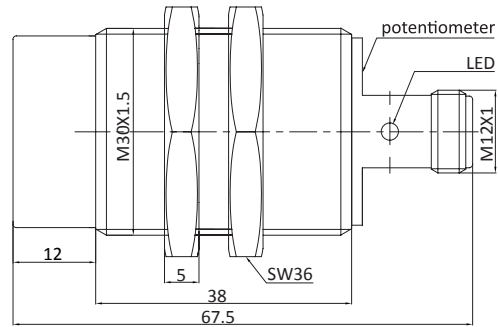


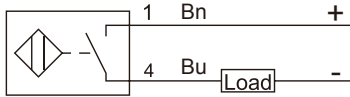
Fig. 8 Capacitive sensor with M12 connector (non-flush)



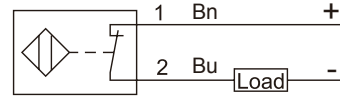
M30 METAL BARREL SERIES

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

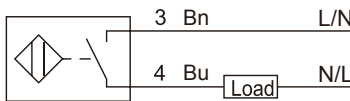
WD1 DC 2-wire NO



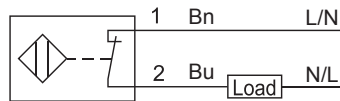
WD2 DC 2-wire NC



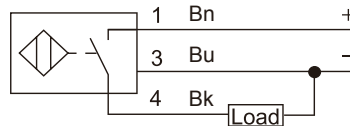
WD3 AC 2-wire NO



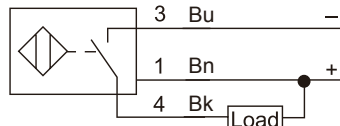
WD4 AC 2-wire NC



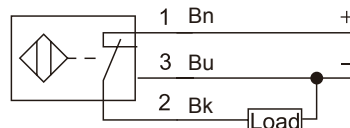
WD5 DC 3-wire PNP NO



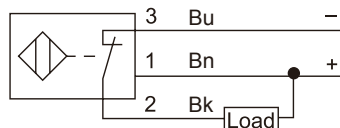
WD6 DC 3-wire NPN NO



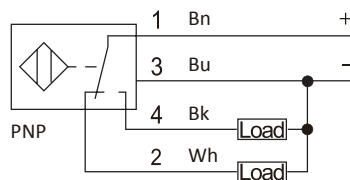
WD7 DC 3-wire PNP NC



WD8 DC 3-wire NPN NC



WD9 DC 4-wire PNP NO + NC



WD10 DC 4-wire NPN NO + NC

