

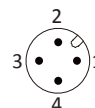
KM30 LONG SENSING SERIES

ARTICLE PROPERTIES

SENSOR TYPE	Capacitive sensor
SIZE	M30x1.5
RATED OPERATING DISTANCE	<i>see table</i>
NUMBER OF CONDUCTORS	3-wire / 4-wire (<i>see table</i>)

CONNECTION TYPES (*see table*)

- cable PVC, 0.34 mm², 2 m**
- M12 connector, A-coded



** other cable lengths are available on request

MECHANICAL DATA

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

ELECTRICAL DATA

OPERATING VOLTAGE	DC: 10 ... 30 V DC
RATED OPERATING CURRENT	3-wire: ≤ 200 mA 4-wire: ≤ 200 mA
SWITCHING FREQUENCY	<i>see table</i>
SWITCHING OUTPUT	<i>see table</i>
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



KM30 LONG SENSING SERIES

DC 3-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
FC15-KM30-OP6L	flush	15 mm	PNP NO (WD5)	10 Hz	see Fig. 1
FC15-KM30-ON6L	flush	15 mm	NPN NO (WD6)	10 Hz	see Fig. 1
FC15-KM30-CP6L	flush	15 mm	PNP NC (WD7)	10 Hz	see Fig. 1
FC15-KM30-CN6L	flush	15 mm	NPN NC (WD8)	10 Hz	see Fig. 1
NC22-KM30-OP6L	non-flush	22 mm	PNP NO (WD5)	10 Hz	see Fig. 2
NC22-KM30-ON6L	non-flush	22 mm	NPN NO (WD6)	10 Hz	see Fig. 2
NC22-KM30-CP6L	non-flush	22 mm	PNP NC (WD7)	10 Hz	see Fig. 2
NC22-KM30-CN6L	non-flush	22 mm	NPN NC (WD8)	10 Hz	see Fig. 2

DC 3-WIRE OUTPUT M12 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
FC15-KM30-OP6L-Q12	flush	15 mm	PNP NO (WD5)	10 Hz	see Fig. 3
FC15-KM30-ON6L-Q12	flush	15 mm	NPN NO (WD6)	10 Hz	see Fig. 3
FC15-KM30-CP6L-Q12	flush	15 mm	PNP NC (WD7)	10 Hz	see Fig. 3
FC15-KM30-CN6L-Q12	flush	15 mm	NPN NC (WD8)	10 Hz	see Fig. 3
NC22-KM30-OP6L-Q12	non-flush	22 mm	PNP NO (WD5)	10 Hz	see Fig. 4
NC22-KM30-ON6L-Q12	non-flush	22 mm	NPN NO (WD6)	10 Hz	see Fig. 4
NC22-KM30-CP6L-Q12	non-flush	22 mm	PNP NC (WD7)	10 Hz	see Fig. 4
NC22-KM30-CN6L-Q12	non-flush	22 mm	NPN NC (WD8)	10 Hz	see Fig. 4

DC 4-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
FC15-KM30-BP6L	flush	15 mm	PNP NO+NC (WD9)	10 Hz	see Fig. 1
FC15-KM30-BN6L	flush	15 mm	NPN NO+NC (WD10)	10 Hz	see Fig. 1
NC22-KM30-BP6L	non-flush	22 mm	PNP NO+NC (WD9)	10 Hz	see Fig. 2
NC22-KM30-BN6L	non-flush	22 mm	NPN NO+NC (WD10)	10 Hz	see Fig. 2

DC 4-WIRE OUTPUT M12 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
FC15-KM30-BP6L-Q12	flush	15 mm	PNP NO+NC (WD9)	10 Hz	see Fig. 3
FC15-KM30-BN6L-Q12	flush	15 mm	NPN NO+NC (WD10)	10 Hz	see Fig. 3
NC22-KM30-BP6L-Q12	non-flush	22 mm	PNP NO+NC (WD9)	10 Hz	see Fig. 4
NC22-KM30-BN6L-Q12	non-flush	22 mm	NPN NO+NC (WD10)	10 Hz	see Fig. 4

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DIMENSIONS

Fig. 1 Capacitive sensor with cable (flush)

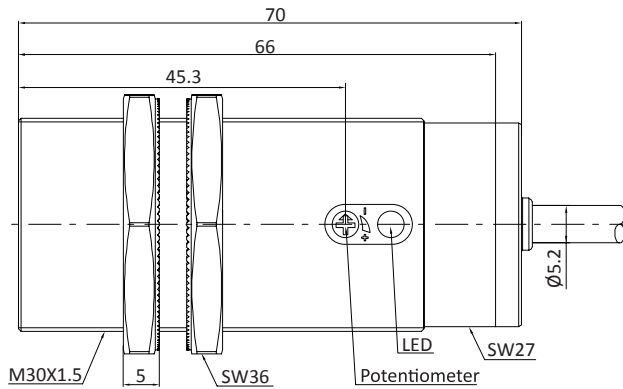


Fig. 2 Capacitive sensor with cable (non-flush)

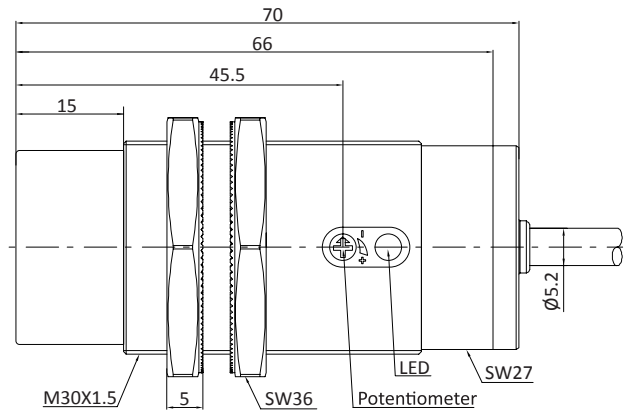


Fig. 3 Capacitive sensor with M12 connector (flush)

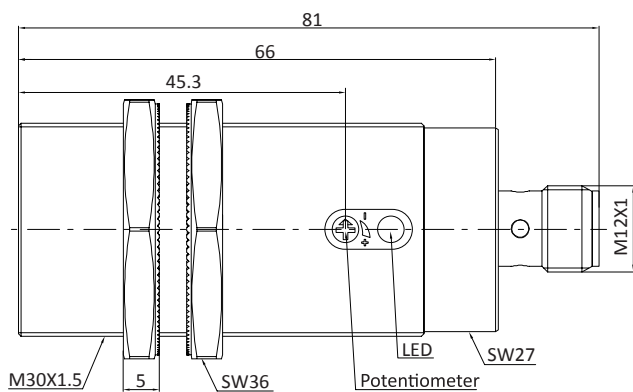
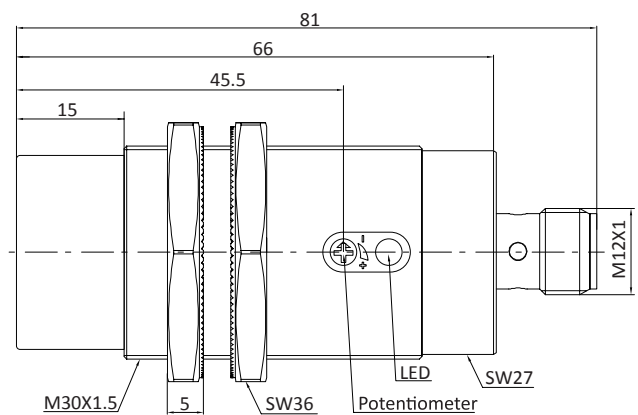


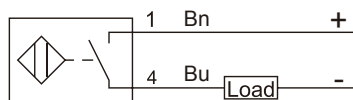
Fig. 4 Capacitive sensor with M12 connector (non-flush)



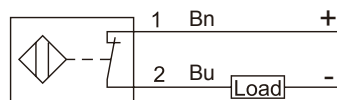
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WIRING DIAGRAMS (Note: 1 / 2 / 3 / 4 connector and terminals pin number Bn / Bu / Wh / Bk cable color)

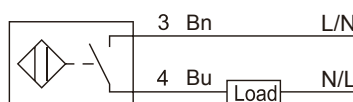
WD1 DC 2-wire NO



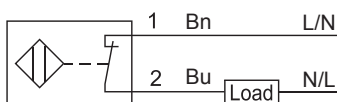
WD2 DC 2-wire NC



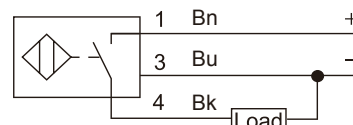
WD3 AC 2-wire NO



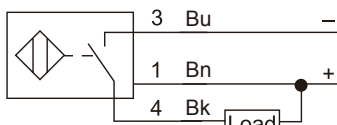
WD4 AC 2-wire NC



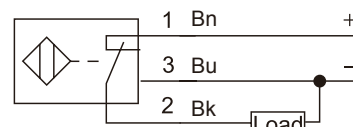
WD5 DC 3-wire PNP NO



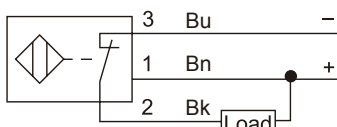
WD6 DC 3-wire NPN NO



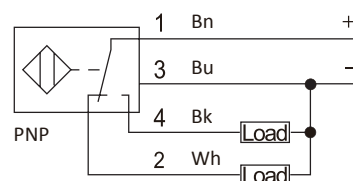
WD7 DC 3-wire PNP NC



WD8 DC 3-wire NPN NC



WD9 DC 4-wire PNP NO + NC



WD10 DC 4-wire NPN NO + NC

