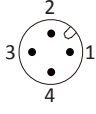


M30 LOW TEMPERATURE SERIES

ARTICLE PROPERTIES

<b>SENSOR TYPE</b>	Inductive sensor	<b>CONNECTION TYPES</b> (see table)
<b>SIZE</b>	M30x1.5	<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 (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>	40 Nm
<b>STANDARD TEST</b>	FE360
<b>ATTENUATION COEFFICIENT</b>	St37 = 1, V2A = 0.7, Al = 0.3

ELECTRICAL DATA

<b>OPERATING VOLTAGE</b>	DC: 10 ... 30 V DC AC/DC: 20 ... 250 V AC/DC
<b>RATED OPERATING CURRENT</b>	2-wire: ≤ 100 mA 2-wire AC: ≤ 200 mA 3-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</b> (EN 60068-2-27)	55 Hz, 1 mm
<b>AMBIENT TEMPERATURE</b>	-40 ... 70 °C	<b>SHOCK RESISTANCE</b> (EN 60068-2-6)	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



## M30 LOW TEMPERATURE SERIES

## DC 2-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi10-M30-OD6L/TB40	flush	10 mm	DC NO (WD1)	400 Hz	see Fig. 1
Fi10-M30-CD6L/TB40	flush	10 mm	DC NC (WD2)	400 Hz	see Fig. 1
Ni15-M30-OD6L/TB40	non-flush	15 mm	DC NO (WD1)	200 Hz	see Fig. 2
Ni15-M30-CD6L/TB40	non-flush	15 mm	DC NC (WD2)	200 Hz	see Fig. 2

## DC 2-WIRE OUTPUT M12 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi10-M30-OD6L-Q12/TB40	flush	10 mm	DC NO (WD1)	400 Hz	see Fig. 4
Fi10-M30-CD6L-Q12/TB40	flush	10 mm	DC NC (WD2)	400 Hz	see Fig. 4
Ni15-M30-OD6L-Q12/TB40	non-flush	15 mm	DC NO (WD1)	200 Hz	see Fig. 5
Ni15-M30-CD6L-Q12/TB40	non-flush	15 mm	DC NC (WD2)	200 Hz	see Fig. 5

## AC/DC 2-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi10-M30-OA41L/TB40	flush	10 mm	AC/DC NO (WD5)	40 Hz	see Fig. 1
Fi10-M30-CA41L/TB40	flush	10 mm	AC/DC NC (WD6)	40 Hz	see Fig. 1
Ni15-M30-OA41L/TB40	non-flush	15 mm	AC/DC NO (WD5)	40 Hz	see Fig. 3
Ni15-M30-CA41L/TB40	non-flush	15 mm	AC/DC NC (WD6)	40 Hz	see Fig. 3

## AC/DC 2-WIRE OUTPUT M12 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi10-M30-OA41L-Q12/TB40	flush	10 mm	AC/DC NO (WD5)	40 Hz	see Fig. 6
Fi10-M30-CA41L-Q12/TB40	flush	10 mm	AC/DC NC (WD6)	40 Hz	see Fig. 6
Ni15-M30-OA41L-Q12/TB40	non-flush	15 mm	AC/DC NO (WD5)	40 Hz	see Fig. 7
Ni15-M30-CA41L-Q12/TB40	non-flush	15 mm	AC/DC NC (WD6)	40 Hz	see Fig. 7

## M30 LOW TEMPERATURE SERIES

## DC 3-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi10-M30-OP6L/TB40	flush	10 mm	PNP NO (WD7)	400 Hz	see Fig. 1
Fi10-M30-ON6L/TB40	flush	10 mm	NPN NO (WD8)	400 Hz	see Fig. 1
Fi10-M30-CP6L/TB40	flush	10 mm	PNP NC (WD9)	400 Hz	see Fig. 1
Fi10-M30-CN6L/TB40	flush	10 mm	NPN NC (WD10)	400 Hz	see Fig. 1
Ni15-M30-OP6L/TB40	non-flush	15 mm	PNP NO (WD7)	200 Hz	see Fig. 2
Ni15-M30-ON6L/TB40	non-flush	15 mm	NPN NO (WD8)	200 Hz	see Fig. 2
Ni15-M30-CP6L/TB40	non-flush	15 mm	PNP NC (WD9)	200 Hz	see Fig. 2
Ni15-M30-CN6L/TB40	non-flush	15 mm	NPN NC (WD10)	200 Hz	see Fig. 2

## DC 3-WIRE OUTPUT M12 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi10-M30-OP6L-Q12/TB40	flush	10 mm	PNP NO (WD7)	400 Hz	see Fig. 4
Fi10-M30-ON6L-Q12/TB40	flush	10 mm	NPN NO (WD8)	400 Hz	see Fig. 4
Fi10-M30-CP6L-Q12/TB40	flush	10 mm	PNP NC (WD9)	400 Hz	see Fig. 4
Fi10-M30-CN6L-Q12/TB40	flush	10 mm	NPN NC (WD10)	400 Hz	see Fig. 4
Ni15-M30-OP6L-Q12/TB40	non-flush	15 mm	PNP NO (WD7)	200 Hz	see Fig. 5
Ni15-M30-ON6L-Q12/TB40	non-flush	15 mm	NPN NO (WD8)	200 Hz	see Fig. 5
Ni15-M30-CP6L-Q12/TB40	non-flush	15 mm	PNP NC (WD9)	200 Hz	see Fig. 5
Ni15-M30-CN6L-Q12/TB40	non-flush	15 mm	NPN NC (WD10)	200 Hz	see Fig. 5

M30 LOW TEMPERATURE SERIES

DIMENSIONS

Fig. 1 Inductive sensor with cable (flush)

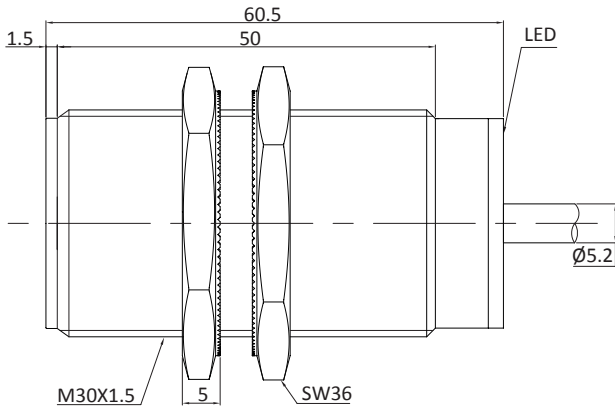


Fig. 2 Inductive sensor with cable (non-flush)

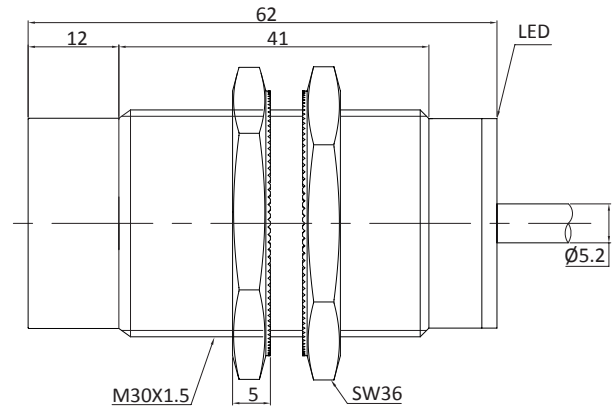


Fig. 3 Inductive sensor with cable (non-flush)

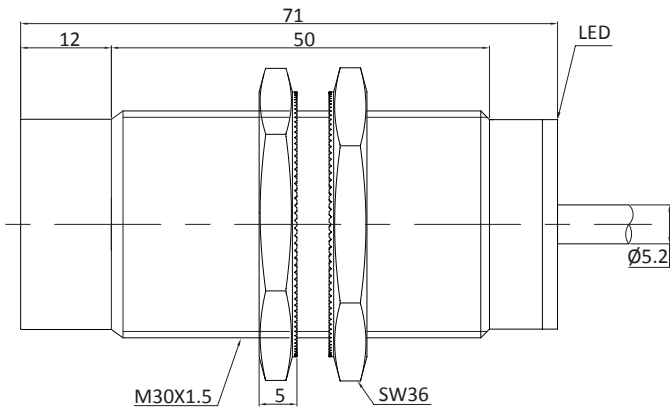


Fig. 4 Inductive sensor with M12 connector (flush)

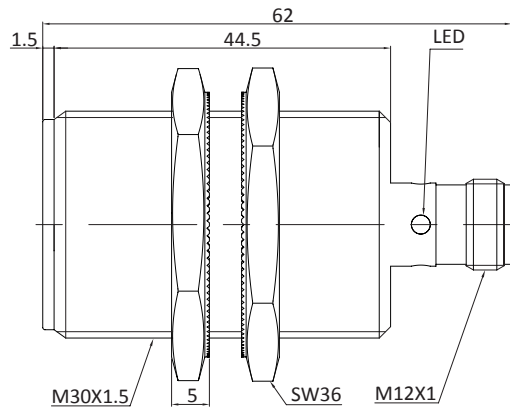


Fig. 5 Inductive sensor with M12 connector (non-flush)

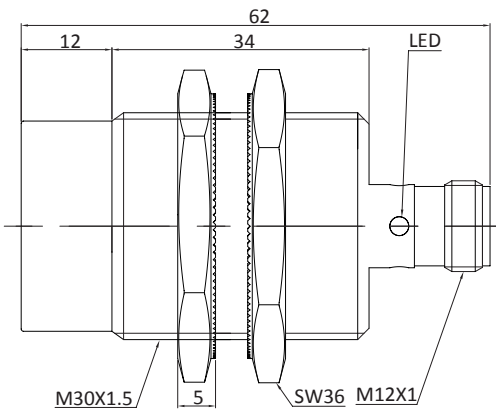
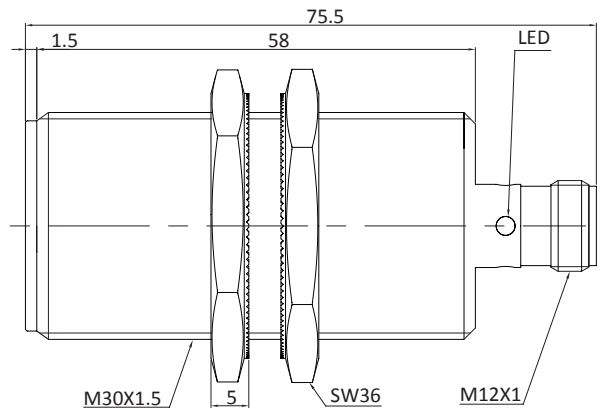


Fig. 6 Inductive sensor with M12 connector (flush)

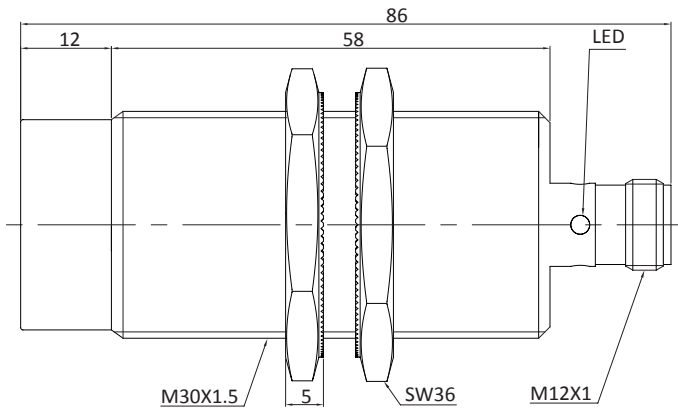


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M30 LOW TEMPERATURE SERIES

DIMENSIONS

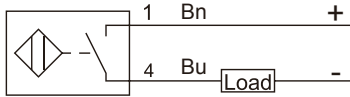
**Fig. 7** Inductive sensor with M12 connector (non-flush)



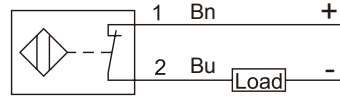
M30 LOW TEMPERATURE SERIES

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

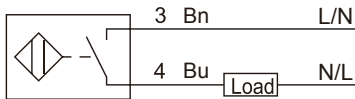
**WD1 DC 2-wire NO**



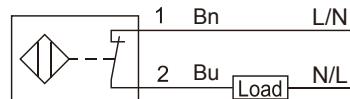
**WD2 DC 2-wire NC**



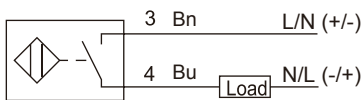
**WD3 AC 2-wire NO**



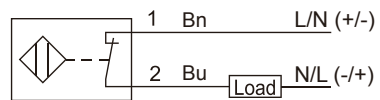
**WD4 AC 2-wire NC**



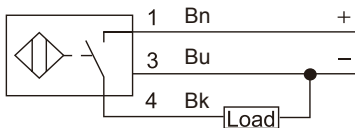
**WD5 AC / DC 2-wire NO**



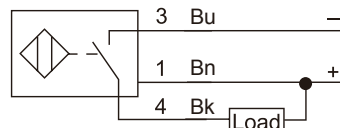
**WD6 AC / DC 2-wire NC**



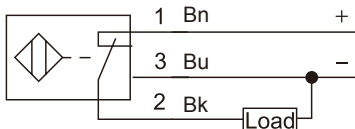
**WD7 DC 3-wire PNP NO**



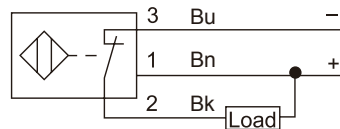
**WD8 DC 3-wire NPN NO**



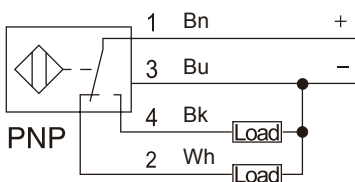
**WD9 DC 3-wire PNP NC**



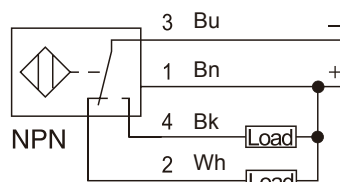
**WD10 DC 3-wire NPN NC**



**WD11 DC 4-wire PNP NO + NC**



**WD12 DC 4-wire NPN NO + NC**

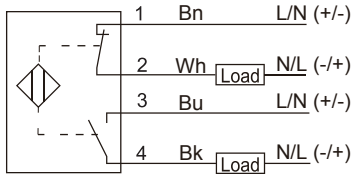


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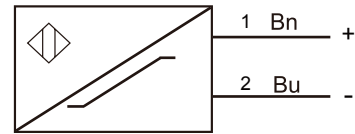
M30 LOW TEMPERATURE SERIES

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

**WD13 AC/DC 4-wire NO+NC**



**WD14 NAMUR 2-wire NC**



**WD15 DC 4-wire 0-10V+0-20mA**

