DATA SHEET INDUCTIVE SENSOR V1.0

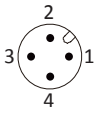
AM30 ALL METAL SERIES

ARTICLE PROPERTIES

SENSOR TYPE	Inductive sensor
SIZE	M30x1.5
RATED OPERATING DISTANCE	*see table*
NUMBER OF CONDUCTORS	2-wire / 3-wire *(see table)*

CONNECTION TYPES (*see table*)

- cable — PUR, 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 (*see table*)
HOUSING	threaded cylindrical
MATERIAL HOUSING	stainless steel
MATERIAL SENSING SURFACE	stainless steel
TIGHTENING TORQUE LOCKING	100 Nm
STANDARD TEST	FE360
ATTENUATION COEFFICIENT	St37 = 1, V2A = 0.7, Al = 0.3

ELECTRICAL DATA

OPERATING VOLTAGE	DC: 10 ... 30 V DC AC: 20 ... 250 V AC
RATED OPERATING CURRENT	2-wire DC: ≤ 100 mA 2-wire AC: ≤ 200 mA 3-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
AMBIENT TEMPERATURE	-25 ... 70 °C
VIBRATION RESISTANCE (EN 60068-2-27)	55 Hz, 1 mm
SHOCK RESISTANCE (EN 60068-2-6)	30*g*/11 ms

STANDARDS AND DIRECTIVES

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

APPROVALS

CE

AM30 ALL METAL SERIES

DC 2-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi10-AM30-OD6L	flush	10 mm	DC NO (WD1)	100 Hz	*see Fig. 1*
Fi10-AM30-CD6L	flush	10 mm	DC NC (WD2)	100 Hz	*see Fig. 1*
Ni15-AM30-OD6L	non-flush	15 mm	DC NO (WD1)	80 Hz	*see Fig. 2*
Ni15-AM30-CD6L	non-flush	15 mm	DC NC (WD2)	80 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-AM30-OD6L-Q12	flush	10 mm	DC NO (WD1)	100 Hz	*see Fig. 3*
Fi10-AM30-CD6L-Q12	flush	10 mm	DC NC (WD2)	100 Hz	*see Fig. 3*
Ni15-AM30-OD6L-Q12	non-flush	15 mm	DC NO (WD1)	80 Hz	*see Fig. 4*
Ni15-AM30-CD6L-Q12	non-flush	15 mm	DC NC (WD2)	80 Hz	*see Fig. 4*

AC 2-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi10-AM30-OSA3L	flush	10 mm	AC NO (WD3)	40 Hz	*see Fig. 1*
Fi10-AM30-CSA3L	flush	10 mm	AC NC (WD4)	40 Hz	*see Fig. 1*
Ni15-AM30-OSA3L	non-flush	15 mm	AC NO (WD3)	40 Hz	*see Fig. 2*
Ni15-AM30-CSA3L	non-flush	15 mm	AC NC (WD4)	40 Hz	*see Fig. 2*

AC 2-WIRE OUTPUT M12 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi10-AM30-OSA3L-Q12	flush	10 mm	AC NO (WD3)	40 Hz	*see Fig. 3*
Fi10-AM30-CSA3L-Q12	flush	10 mm	AC NC (WD4)	40 Hz	*see Fig. 3*
Ni15-AM30-OSA3L-Q12	non-flush	15 mm	AC NO (WD3)	40 Hz	*see Fig. 4*
Ni15-AM30-CSA3L-Q12	non-flush	15 mm	AC NC (WD4)	40 Hz	*see Fig. 4*

AM30 ALL METAL SERIES

DC 3-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi10-AM30-OP6L	flush	10 mm	PNP NO (WD7)	100 Hz	*see Fig. 1*
Fi10-AM30-ON6L	flush	10 mm	NPN NO (WD8)	100 Hz	*see Fig. 1*
Fi10-AM30-CP6L	flush	10 mm	PNP NC (WD9)	100 Hz	*see Fig. 1*
Fi10-AM30-CN6L	flush	10 mm	NPN NC (WD10)	100 Hz	*see Fig. 1*
Ni15-AM30-OP6L	non-flush	15 mm	PNP NO (WD7)	80 Hz	*see Fig. 2*
Ni15-AM30-ON6L	non-flush	15 mm	NPN NO (WD8)	80 Hz	*see Fig. 2*
Ni15-AM30-CP6L	non-flush	15 mm	PNP NC (WD9)	80 Hz	*see Fig. 2*
Ni15-AM30-CN6L	non-flush	15 mm	NPN NC (WD10)	80 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-AM30-OP6L-Q12	flush	10 mm	PNP NO (WD7)	100 Hz	*see Fig. 3*
Fi10-AM30-ON6L-Q12	flush	10 mm	NPN NO (WD8)	100 Hz	*see Fig. 3*
Fi10-AM30-CP6L-Q12	flush	10 mm	PNP NC (WD9)	100 Hz	*see Fig. 3*
Fi10-AM30-CN6L-Q12	flush	10 mm	NPN NC (WD10)	100 Hz	*see Fig. 3*
Ni15-AM30-OP6L-Q12	non-flush	15 mm	PNP NO (WD7)	80 Hz	*see Fig. 4*
Ni15-AM30-ON6L-Q12	non-flush	15 mm	NPN NO (WD8)	80 Hz	*see Fig. 4*
Ni15-AM30-CP6L-Q12	non-flush	15 mm	PNP NC (WD9)	80 Hz	*see Fig. 4*
Ni15-AM30-CN6L-Q12	non-flush	15 mm	NPN NC (WD10)	80 Hz	*see Fig. 4*

DIMENSIONS

Fig. 1 Inductive sensor with cable (flush)

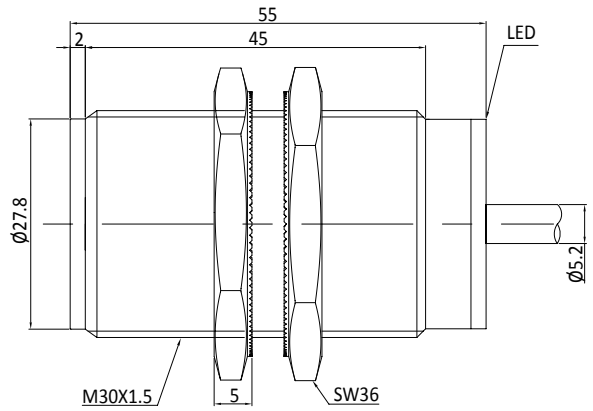


Fig. 2 Inductive sensor with cable (non-flush)

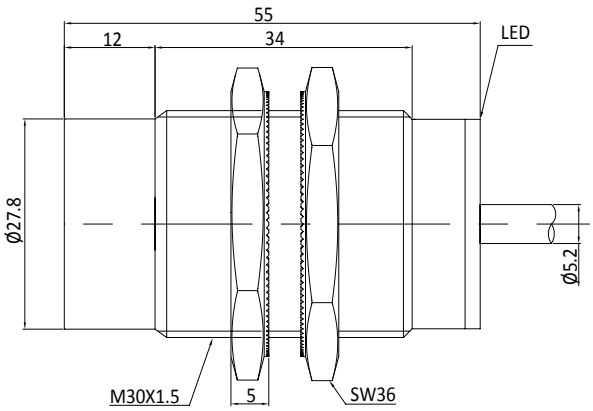


Fig. 3 Inductive sensor with M12 connector (flush)

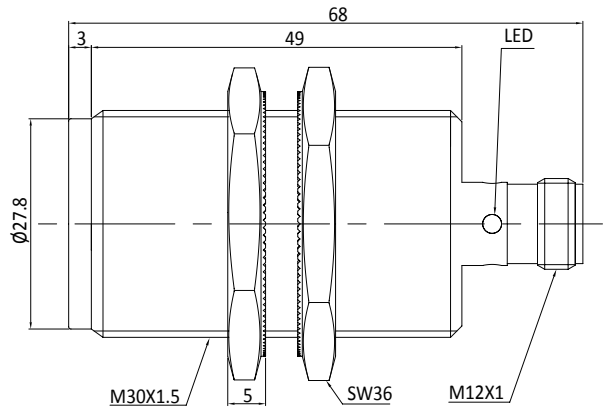
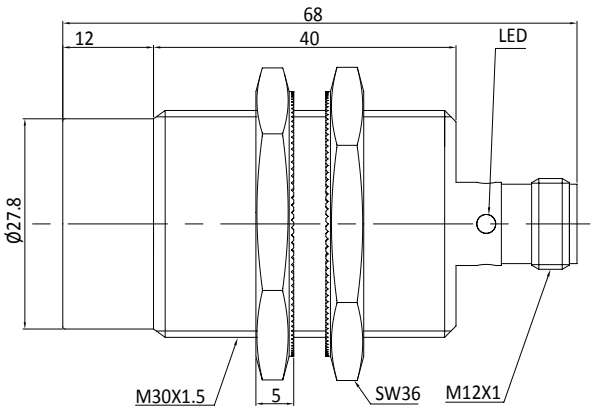


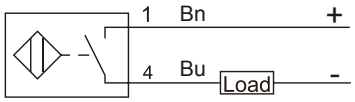
Fig. 4 Inductive sensor with M12 connector (non-flush)



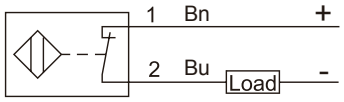
AM30 ALL METAL SERIES

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

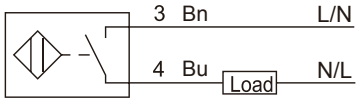
WD1 DC 2-wire NO



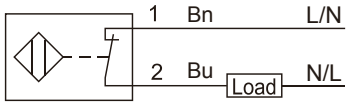
WD2 DC 2-wire NC



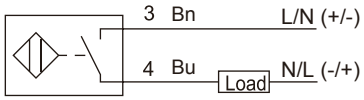
WD3 AC 2-wire NO



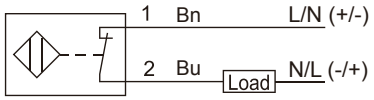
WD4 AC 2-wire NC



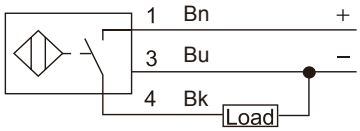
WD5 AC / DC 2-wire NO



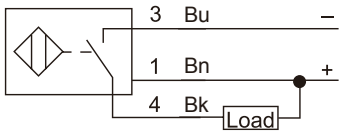
WD6 AC / DC 2-wire NC



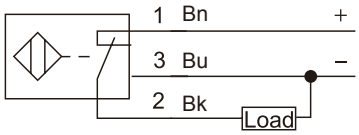
WD7 DC 3-wire PNP NO



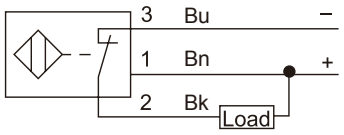
WD8 DC 3-wire NPN NO



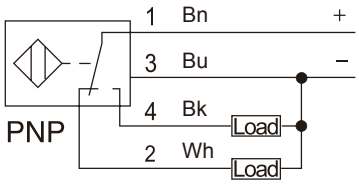
WD9 DC 3-wire PNP NC



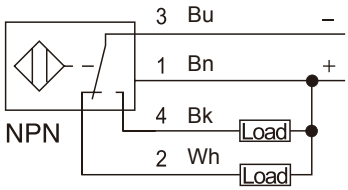
WD10 DC 3-wire NPN NC



WD11 DC 4-wire PNP NO + NC



WD12 DC 4-wire NPN NO + NC

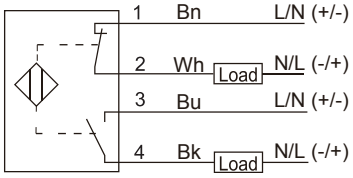


ELCO Industrie Automation GmbH | Zentrale Europa | Benzstraße 7 | 71720 Oberstenfeld / Germany | Phone +49 7062 6599-260 | EN | Creation date: 16.11.23 | DS_SI_AM30-All-metal_V1.0_EN

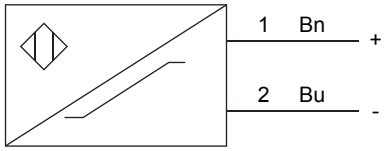
AM30 ALL METAL SERIES

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