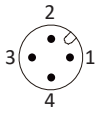


M18S SHORT SERIES

ARTICLE PROPERTIES

SENSOR TYPE	Inductive sensor	CONNECTION TYPES (see table)
SIZE	M18x1	<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	20 N·m
STANDARD TEST	FE360
ATTENUATION COEFFICIENT	St37 = 1, V2A = 0.7, Al = 0.3

ELECTRICAL DATA

OPERATING VOLTAGE	DC: 10 ... 30 V DC
RATED OPERATING CURRENT	2-wire DC: ≤ 100 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 60068-2-6)	10 ... 55 Hz, 1 mm
AMBIENT TEMPERATURE	-25 ... +70 °C	SHOCK RESISTANCE (EN 60068-2-27)	30 g, 11 ms

STANDARDS AND DIRECTIVES

EMC DIRECTIVE 2014/30/EU	EN IEC 60947-5-2
ROHS DIRECTIVE 2011/65/EU	EN IEC 63000

APPROVALS



M18S SHORT SERIES

DC 2-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi5-M18S-OD6L	flush	5 mm	DC NO (WD1)	800 Hz	see Fig. 1
Fi5-M18S-CD6L	flush	5 mm	DC NC (WD2)	800 Hz	see Fig. 1
Ni8-M18S-OD6L	non-flush	8 mm	DC NO (WD1)	500 Hz	see Fig. 2
Ni8-M18S-CD6L	non-flush	8 mm	DC NC (WD2)	500 Hz	see Fig. 2

DC 2-WIRE OUTPUT M12 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi5-M18S-OD6L-Q12	flush	5 mm	DC NO (WD1)	800 Hz	see Fig. 3
Fi5-M18S-CD6L-Q12	flush	5 mm	DC NC (WD2)	800 Hz	see Fig. 3
Ni8-M18S-OD6L-Q12	non-flush	8 mm	DC NO (WD1)	500 Hz	see Fig. 4
Ni8-M18S-CD6L-Q12	non-flush	8 mm	DC NC (WD2)	500 Hz	see Fig. 4

DC 3-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi5-M18S-OP6L	flush	5 mm	PNP NO (WD7)	800 Hz	see Fig. 1
Fi5-M18S-ON6L	flush	5 mm	NPN NO (WD8)	800 Hz	see Fig. 1
Fi5-M18S-CP6L	flush	5 mm	PNP NC (WD9)	800 Hz	see Fig. 1
Fi5-M18S-CN6L	flush	5 mm	NPN NC (WD10)	800 Hz	see Fig. 1
Ni8-M18S-OP6L	non-flush	8 mm	PNP NO (WD7)	500 Hz	see Fig. 2
Ni8-M18S-ON6L	non-flush	8 mm	NPN NO (WD8)	500 Hz	see Fig. 2
Ni8-M18S-CP6L	non-flush	8 mm	PNP NC (WD9)	500 Hz	see Fig. 2
Ni8-M18S-CN6L	non-flush	8 mm	NPN NC (WD10)	500 Hz	see Fig. 2

DC 3-WIRE OUTPUT M12 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi5-M18S-OP6L-Q12	flush	5 mm	PNP NO (WD7)	800 Hz	see Fig. 3
Fi5-M18S-ON6L-Q12	flush	5 mm	NPN NO (WD8)	800 Hz	see Fig. 3
Fi5-M18S-CP6L-Q12	flush	5 mm	PNP NC (WD9)	800 Hz	see Fig. 3
Fi5-M18S-CN6L-Q12	flush	5 mm	NPN NC (WD10)	800 Hz	see Fig. 3
Ni8-M18S-OP6L-Q12	non-flush	8 mm	PNP NO (WD7)	500 Hz	see Fig. 4
Ni8-M18S-ON6L-Q12	non-flush	8 mm	NPN NO (WD8)	500 Hz	see Fig. 4
Ni8-M18S-CP6L-Q12	non-flush	8 mm	PNP NC (WD9)	500 Hz	see Fig. 4
Ni8-M18S-CN6L-Q12	non-flush	8 mm	NPN NC (WD10)	500 Hz	see Fig. 4

M18S SHORT SERIES

DC 4-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi5-M18S-BP6L	flush	5 mm	PNP NO+NC (WD11)	800 Hz	see Fig. 1
Fi5-M18S-BN6L	flush	5 mm	NPN NO+NC (WD12)	800 Hz	see Fig. 1
Ni8-M18S-BP6L	non-flush	8 mm	PNP NO+NC (WD11)	500 Hz	see Fig. 2
Ni8-M18S-BN6L	non-flush	8 mm	NPN NO+NC (WD12)	500 Hz	see Fig. 2

DC 4-WIRE OUTPUT M12 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi5-M18S-BP6L-Q12	flush	5.0 mm	PNP NO+NC (WD11)	800 Hz	see Fig. 3
Fi5-M18S-BN6L-Q12	flush	5.0 mm	NPN NO+NC (WD12)	800 Hz	see Fig. 3
Ni8-M18S-BP6L-Q12	non-flush	8.0 mm	PNP NO+NC (WD11)	500 Hz	see Fig. 4
Ni8-M18S-BN6L-Q12	non-flush	8.0 mm	NPN NO+NC (WD12)	500 Hz	see Fig. 4

M18S SHORT SERIES

DIMENSIONS

Fig. 1 Inductive sensor with cable (flush)

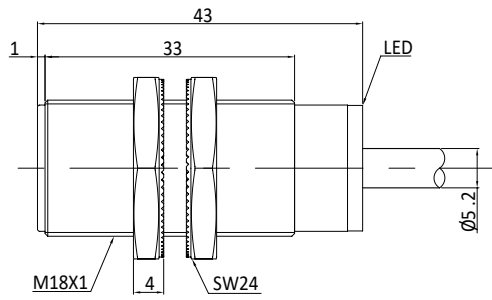


Fig. 2 Inductive sensor with cable (non-flush)

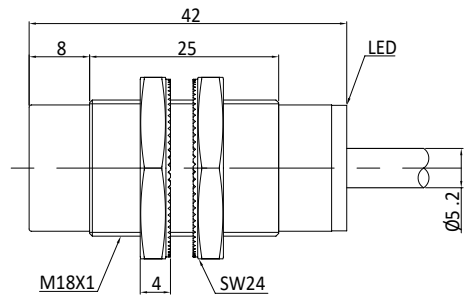


Fig. 3 Inductive sensor with M12 connector (flush)

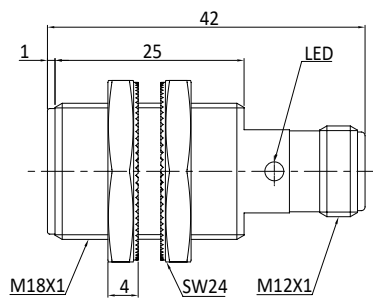
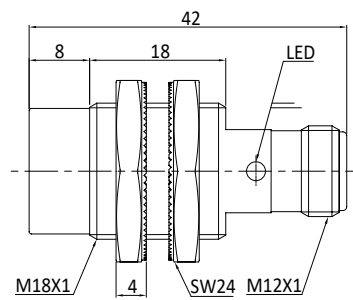


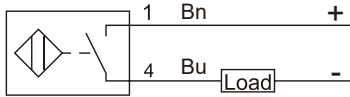
Fig. 4 Inductive sensor with M12 connector (non-flush)



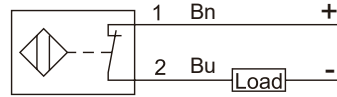
M18S SHORT SERIES

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

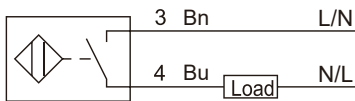
WD1 DC 2-wire NO



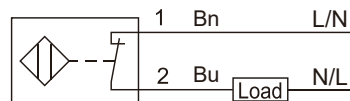
WD2 DC 2-wire NC



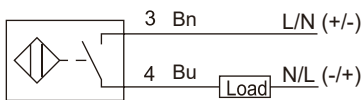
WD3 AC 2-wire NO



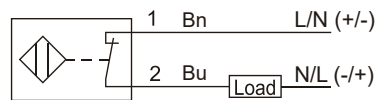
WD4 AC 2-wire NC



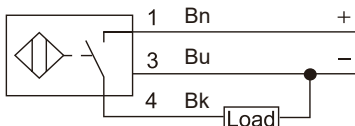
WD5 AC / DC 2-wire NO



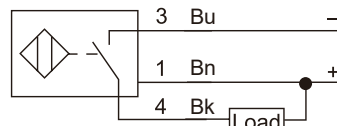
WD6 AC / DC 2-wire NC



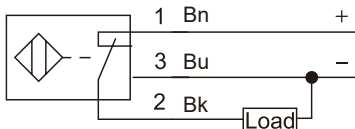
WD7 DC 3-wire PNP NO



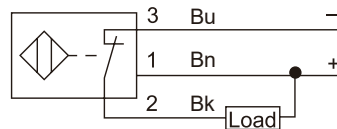
WD8 DC 3-wire NPN NO



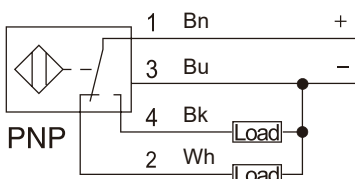
WD9 DC 3-wire PNP NC



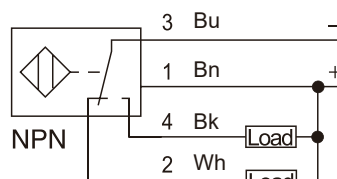
WD10 DC 3-wire NPN NC



WD11 DC 4-wire PNP NO + NC



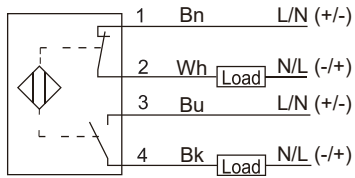
WD12 DC 4-wire NPN NO + NC



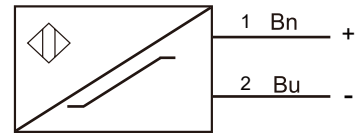
M18S SHORT SERIES

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

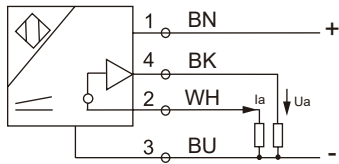
WD13 AC/DC 4-wire NO+NC



WD14 NAMUR 2-wire NC



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



M18S SHORT SERIES

SALES AND SERVICE

Tianjin Elco Automation Co., Ltd

No. 12, 4th XEDA Branch Road
Xiqing Economic-Technological Development Area
Tianjin 300385, P.R. China
Office Phone: 022 23788282
E-Mail: info@elco.cn
www.elco-holding.com.cn

Elco Industrie Automation GmbH

Benzstrasse 7
71720 Oberstenfeld,
Deutschland
Office Phone: +49 7062 / 6599-260
E-Mail: info@elco-automation.de
www.elco-automation.de

Elco Automation LLC

1097 Highway 101 South, Suite D-3 Greer
South Carolina 29651, USA
Office Phone: +1 864-581-7431
E-Mail: infousa@elcoautomation.com
www.elcoautomation.com

Elco Industrial Automation Pvt Ltd.

No 80, 1st Main, 2nd Cross, Royal Enclave,
Sidedahalli, Nagasandra Bangalore 560073, India
Office Phone: +91-7259931777
E-Mail: info@elcoautomation.in
www.elcoautomation.com

Elco Automation Korea Ltd.

706, 17 Daehak 4-ro, Yeongtong-gu, Suwon-si,
Gyeonggi-do, Republic of Korea, 16226
Office Phone: +82-31-216-7890
E-Mail: sales@elcoautomation.co.kr
www.elcoautomation.com