

## M12SS SUPER SHORT SERIES

## ARTICLE PROPERTIES

<b>SENSOR TYPE</b>	Inductive sensor	<b>CONNECTION TYPES</b> ( <i>see table</i> )
<b>SIZE</b>	M12x1	• Cable PVC, 0.25 mm <sup>2</sup> , 2 m**
<b>RATED OPERATING DISTANCE</b>	See table	
<b>NUMBER OF CONDUCTORS</b>	2-wire / 3-wire ( <i>see table</i> )	** Other cable lengths are available on request

## MECHANICAL DATA

<b>MOUNTING</b> (mounting nuts included in delivery)	Flush ( <i>see table</i> )
<b>HOUSING</b>	Threaded cylindrical
<b>MATERIAL HOUSING</b>	Brass nickel-plated
<b>MATERIAL SENSING SURFACE</b>	PBT
<b>TIGHTENING TORQUE LOCKING</b>	10 N·m
<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
<b>RATED OPERATING CURRENT</b>	2-wire: ≤ 100 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 60068-2-6)	10 ... 55 Hz, 1 mm
<b>AMBIENT TEMPERATURE</b>	-25 ... +70 °C	<b>SHOCK RESISTANCE</b> (EN 60068-2-27)	30 g, 11 ms

## STANDARDS AND DIRECTIVES

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

## APPROVALS



M12SS SUPER SHORT SERIES

**DC 2-WIRE OUTPUT CABLE**

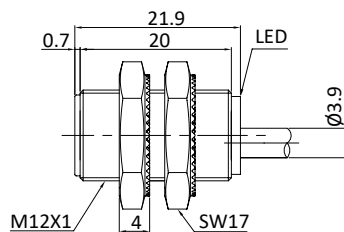
Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi2-M12SS-OD6L	flush	2 mm	DC NO (WD1)	1000 Hz	see Fig. 1
Fi2-M12SS-CD6L	flush	2 mm	DC NC (WD2)	1000 Hz	see Fig. 1

**DC 3-WIRE OUTPUT CABLE**

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi2-M12SS-OP6L	flush	2 mm	PNP NO (WD7)	1000 Hz	see Fig. 1
Fi2-M12SS-ON6L	flush	2 mm	NPN NO (WD8)	1000 Hz	see Fig. 1
Fi2-M12SS-CP6L	flush	2 mm	PNP NC (WD9)	1000 Hz	see Fig. 1
Fi2-M12SS-CN6L	flush	2 mm	NPN NC (WD10)	1000 Hz	see Fig. 1

**DIMENSIONS**

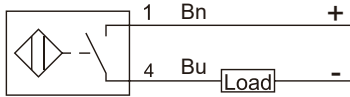
**Fig. 1** Inductive sensor with cable (flush)



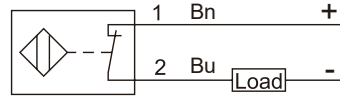
M12SS SUPER SHORT SERIES

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

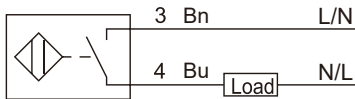
**WD1 DC 2-wire NO**



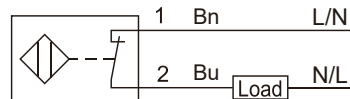
**WD2 DC 2-wire NC**



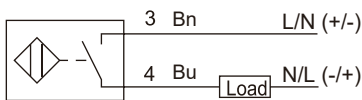
**WD3 AC 2-wire NO**



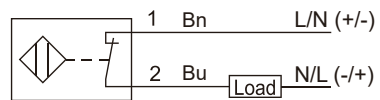
**WD4 AC 2-wire NC**



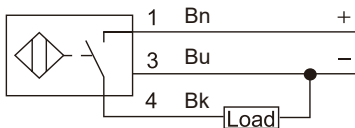
**WD5 AC / DC 2-wire NO**



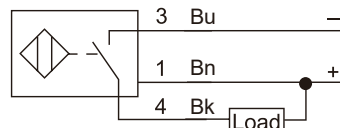
**WD6 AC / DC 2-wire NC**



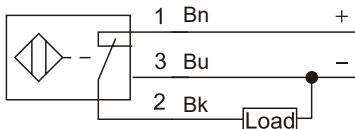
**WD7 DC 3-wire PNP NO**



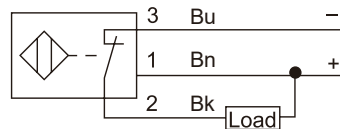
**WD8 DC 3-wire NPN NO**



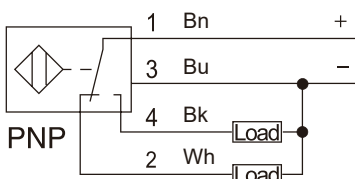
**WD9 DC 3-wire PNP NC**



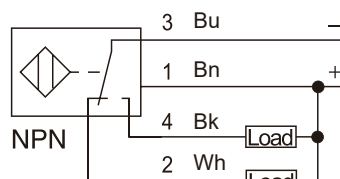
**WD10 DC 3-wire NPN NC**



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



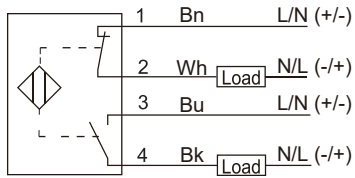
**WD12 DC 4-wire NPN NO + NC**



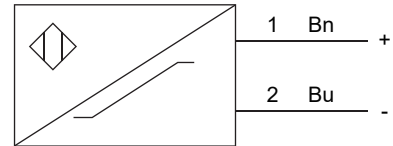
M12SS SUPER SHORT SERIES

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

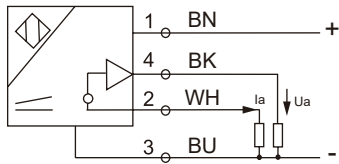
**WD13 AC/DC 4-wire NO+NC**



**WD14 NAMUR 2-wire NC**



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



## M12SS SUPER 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](mailto:info@elco.cn)  
[www.elco-holding.com.cn](http://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](mailto:info@elco-automation.de)  
[www.elco-automation.de](http://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](mailto:infousa@elcoautomation.com)  
[www.elcoautomation.com](http://www.elcoautomation.com)

**Elco Industrial Automation Pvt Ltd.**

No 80, 1<sup>st</sup> Main, 2<sup>nd</sup> Cross, Royal Enclave,  
Sidedahalli, Nagasandra Bangalore 560073, India  
Office Phone: +91-7259931777  
E-Mail: [info@elcoautomation.in](mailto:info@elcoautomation.in)  
[www.elcoautomation.com](http://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](mailto:sales@elcoautomation.co.kr)  
[www.elcoautomation.com](http://www.elcoautomation.com)