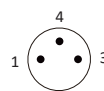


KH6.5 SERIES

ARTICLE PROPERTIES

<b>SENSOR TYPE</b>	Inductive sensor	<b>CONNECTION TYPES</b> (see table)
<b>SIZE</b>	Ø 6.5 mm	<ul style="list-style-type: none"> <li>• Cable PVC, 0.15 mm<sup>2</sup>, 2 m**</li> <li>• M8 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>	Flush / non-flush (see table)
<b>HOUSING</b>	Cylindrical
<b>MATERIAL HOUSING</b>	Stainless steel
<b>MATERIAL SENSING SURFACE</b>	PBT
<b>TIGHTENING TORQUE LOCKING</b>	—
<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 (EN 60068-2-6)</b>	10 ... 55 Hz, 1 mm
<b>AMBIENT TEMPERATURE</b>	-25 ... +70 °C	<b>SHOCK RESISTANCE (EN 60068-2-27)</b>	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



## KH6.5 SERIES

## DC 2-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi1.5-KH6.5-OD6L	flush	1.5 mm	DC NO (WD1)	1000 Hz	see Fig. 1
Fi1.5-KH6.5-CD6L	flush	1.5 mm	DC NC (WD2)	1000 Hz	see Fig. 1
Ni2-KH6.5-OD6L	non-flush	2 mm	DC NO (WD1)	1000 Hz	see Fig. 2
Ni2-KH6.5-CD6L	non-flush	2 mm	DC NC (WD2)	1000 Hz	see Fig. 2

## DC 2-WIRE OUTPUT M8 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi1.5-KH6.5-OD6L-Q8	flush	1.5 mm	DC NO (WD1)	1000 Hz	see Fig. 3
Fi1.5-KH6.5-CD6L-Q8	flush	1.5 mm	DC NC (WD2)	1000 Hz	see Fig. 3
Ni2-KH6.5-OD6L-Q8	non-flush	2 mm	DC NO (WD1)	1000 Hz	see Fig. 4
Ni2-KH6.5-CD6L-Q8	non-flush	2 mm	DC NC (WD2)	1000 Hz	see Fig. 4

## DC 3-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi1.5-KH6.5-OP6L	flush	1.5 mm	PNP NO (WD7)	1000 Hz	see Fig. 1
Fi1.5-KH6.5-ON6L	flush	1.5 mm	NPN NO (WD8)	1000 Hz	see Fig. 1
Fi1.5-KH6.5-CP6L	flush	1.5 mm	PNP NC (WD9)	1000 Hz	see Fig. 1
Fi1.5-KH6.5-CN6L	flush	1.5 mm	NPN NC (WD10)	1000 Hz	see Fig. 1
Ni2-KH6.5-OP6L	non-flush	2 mm	PNP NO (WD7)	1000 Hz	see Fig. 2
Ni2-KH6.5-ON6L	non-flush	2 mm	NPN NO (WD8)	1000 Hz	see Fig. 2
Ni2-KH6.5-CP6L	non-flush	2 mm	PNP NC (WD9)	1000 Hz	see Fig. 2
Ni2-KH6.5-CN6L	non-flush	2 mm	NPN NC (WD10)	1000 Hz	see Fig. 2

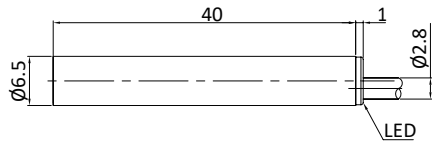
## DC 3-WIRE OUTPUT M8 CONNECTOR

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi1.5-KH6.5-OP6L-Q8	flush	1.5 mm	PNP NO (WD7)	1000 Hz	see Fig. 3
Fi1.5-KH6.5-ON6L-Q8	flush	1.5 mm	NPN NO (WD8)	1000 Hz	see Fig. 3
Fi1.5-KH6.5-CP6L-Q8	flush	1.5 mm	PNP NC (WD9)	1000 Hz	see Fig. 3
Fi1.5-KH6.5-CN6L-Q8	flush	1.5 mm	NPN NC (WD10)	1000 Hz	see Fig. 3
Ni2-KH6.5-OP6L-Q8	non-flush	2 mm	PNP NO (WD7)	1000 Hz	see Fig. 4
Ni2-KH6.5-ON6L-Q8	non-flush	2 mm	NPN NO (WD8)	1000 Hz	see Fig. 4
Ni2-KH6.5-CP6L-Q8	non-flush	2 mm	PNP NC (WD9)	1000 Hz	see Fig. 4
Ni2-KH6.5-CN6L-Q8	non-flush	2 mm	NPN NC (WD10)	1000 Hz	see Fig. 4

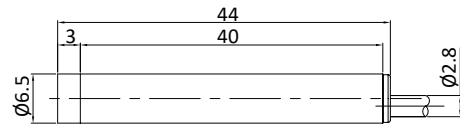
KH6.5 SERIES

DIMENSIONS

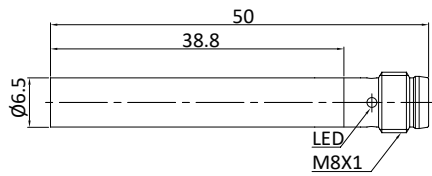
**Fig. 1** Inductive sensor with cable (flush)



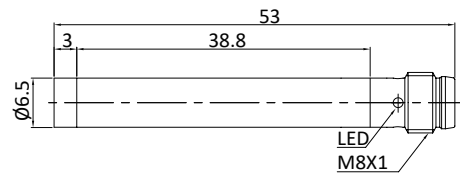
**Fig. 2** Inductive sensor with cable (non-flush)



**Fig. 3** Inductive sensor with M8 connector (flush)



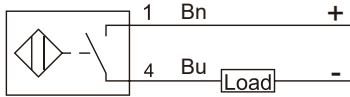
**Fig. 4** Inductive sensor with M8 connector (non-flush)



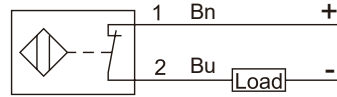
KH6.5 SERIES

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

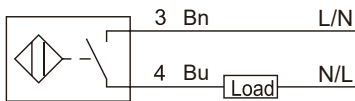
**WD1 DC 2-wire NO**



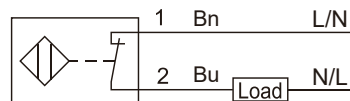
**WD2 DC 2-wire NC**



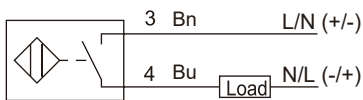
**WD3 AC 2-wire NO**



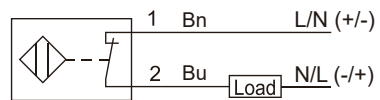
**WD4 AC 2-wire NC**



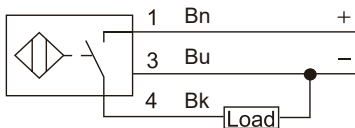
**WD5 AC / DC 2-wire NO**



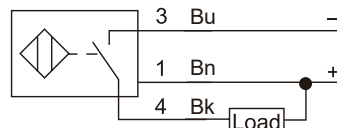
**WD6 AC / DC 2-wire NC**



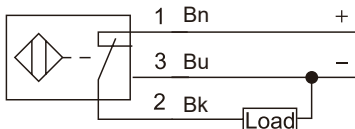
**WD7 DC 3-wire PNP NO**



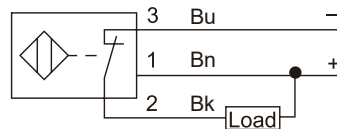
**WD8 DC 3-wire NPN NO**



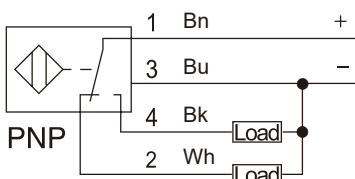
**WD9 DC 3-wire PNP NC**



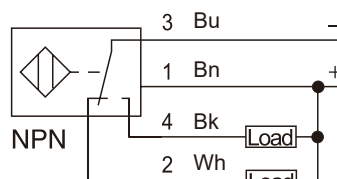
**WD10 DC 3-wire NPN NC**



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



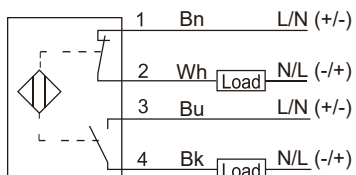
**WD12 DC 4-wire NPN NO + NC**



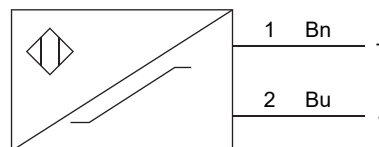
KH6.5 SERIES

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

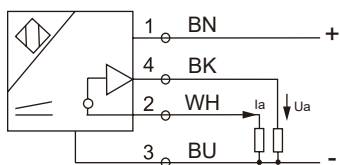
**WD13 AC/DC 4-wire NO+NC**



**WD14 NAMUR 2-wire NC**



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



## KH6.5 SERIES

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### 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)