



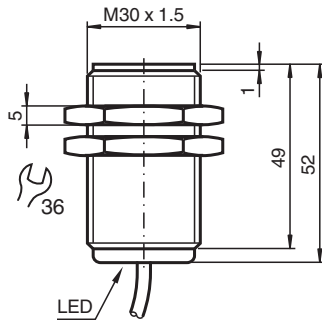
# Inductive sensor

## NJ10-30GK50-E2-Y222509

- 3-wire DC
- 10 mm flush



### Dimensions



### Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	10 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 8.1 mm
Actual operating distance	$s_r$	9 ... 11 mm typ. 10 mm
Reduction factor $r_{Al}$		0.22
Reduction factor $r_{Cu}$		0.19
Reduction factor $r_{304}$		0.66
Reduction factor $r_{Brass}$		0.33
Output type		3-wire
Nominal ratings		
Operating voltage	$U_B$	10 ... 60 V
Switching frequency	$f$	0 ... 700 Hz
Hysteresis	$H$	typ. 5 %

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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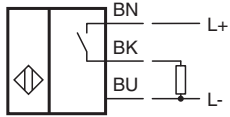
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 PEPPERL+FUCHS

## Technical Data

Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 2.8$ V
Voltage drop at $I_L$		
Voltage drop $I_L = 10$ mA, switching element on	$U_d$	0.9 ... 2.4 V typ. 1.7 V
Voltage drop $I_L = 20$ mA, switching element on	$U_d$	0.9 ... 2.4 V typ. 1.7 V
Voltage drop $I_L = 50$ mA, switching element on	$U_d$	0.9 ... 2.5 V typ. 1.7 V
Voltage drop $I_L = 100$ mA, switching element on	$U_d$	1 ... 2.6 V typ. 1.8 V
Voltage drop $I_L = 200$ mA, switching element on	$U_d$	1.2 ... 2.8 V typ. 2 V
Operating current	$I_L$	0 ... 400 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.01 mA
No-load supply current	$I_0$	$\leq 9$ mA
Switching state indicator		LED, yellow
<b>Safety-relevant product characteristics</b>		
MTTF <sub>d</sub>		1370 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
UL approval		cULus Listed Load Type: Resistive Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 60 V DC Output Switching Current: 400 mA
CCC approval		Certified by China Compulsory Certification (CCC)
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 70 °C (-40 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		cable
Housing material		PBT
Sensing face		PBT
Degree of protection		IP68
Cable		
Wire end ferrules		yes
Cable diameter		6.8 mm $\pm$ 0.2 mm
Bending radius		> 10 x cable diameter
Material		silicone
Color		red
Number of cores		3
Core cross section		0.75 mm <sup>2</sup>
Length	L	2.9 m
Dimensions		
Length		50 mm
Diameter		30 mm
Note		stainless steel nuts included

# Connection Assignment



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