

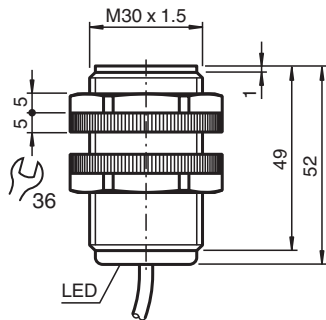


# Inductive sensor NJ10-30GK50-A2-10M

- 10 mm flush



## Dimensions



## Technical Data

### General specifications

Switching function		complementary
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 $r_{Al}$		0.4
Reduction factor $r_{Cu}$		0.38
Reduction factor $r_{304}$		0.71
Reduction factor $r_{Brass}$		0.45
Output type		4-wire

### Nominal ratings

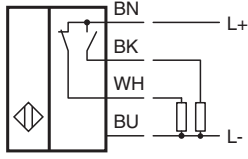
Operating voltage	$U_B$	10 ... 60 V
Switching frequency	$f$	0 ... 500 Hz
Hysteresis	$H$	typ. 5 %

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## Technical Data

Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 2.8 \text{ V}$
Voltage drop at $I_L$		
Voltage drop $I_L = 10 \text{ mA}$ , switching element on	$U_d$	0.9 ... 2.4 V typ. 1.7 V
Voltage drop $I_L = 20 \text{ mA}$ , switching element on	$U_d$	0.9 ... 2.4 V typ. 1.7 V
Voltage drop $I_L = 50 \text{ mA}$ , switching element on	$U_d$	0.9 ... 2.5 V typ. 1.7 V
Voltage drop $I_L = 100 \text{ mA}$ , switching element on	$U_d$	1 ... 2.6 V typ. 1.8 V
Voltage drop $I_L = 200 \text{ mA}$ , 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	$I_0$	$\leq 9 \text{ mA}$
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1130 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, General Purpose, Class 2 Power Source
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-25 ... 85 °C (-13 ... 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		PVC
Color		grey
Number of cores		4
Core cross section		0.75 mm <sup>2</sup>
Length	L	10 m
Dimensions		
Length		50 mm
Diameter		30 mm

## Connection



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