

# Inductive sensor

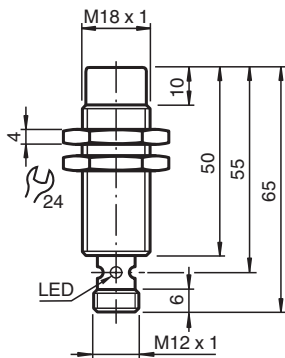
## NJ8-18GM50-E-V1



- Comfort series
- 8 mm non-flush



### Dimensions



### Technical Data

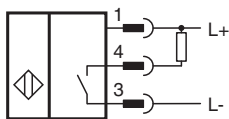
General specifications		
Switching function		Normally open (NO)
Output type		NPN
Rated operating distance	$s_n$	8 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 6.48 mm
Actual operating distance	$s_r$	7.2 ... 8.8 mm typ. 8 mm
Reduction factor $r_{Al}$		0.42
Reduction factor $r_{Cu}$		0.4
Reduction factor $r_{304}$		0.72
Reduction factor $r_{Brass}$		0.5
Output type		3-wire
Nominal ratings		
Installation conditions		
A		10 mm
B		54 mm

Release date: 2025-06-03 Date of issue: 2025-06-03 Filename: 282974\_eng.pdf

## Technical Data

C		24 mm
Operating voltage	$U_B$	10 ... 60 V
Switching frequency	f	0 ... 1000 Hz
Hysteresis	H	1 ... 10 % typ. 6 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3$ V
Voltage drop at $I_L$		
Voltage drop $I_L = 100$ mA, switching element on	$U_d$	1.5 ... 2.5 V typ. 1.9 V
Operating current	$I_L$	0 ... 200 mA
Lowest operating current	$I_m$	0 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.01 mA
Off-state current $T_U = 40$ °C, switching element off		$\leq 100$ $\mu$ A
No-load supply current	$I_o$	$\leq 9$ mA
Time delay before availability	$t_v$	$\leq 30$ ms
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1410 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
CCC approval		Certified by China Compulsory Certification (CCC)
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		Connector plug
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP67
Connector		
Threading		M12 x 1
Number of pins		3
Dimensions		
Length		65 mm
Diameter		18 mm

## Connection



## Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)