Pepperl Plus Fuchs PF 128872 Inductive Sensor Owner's Manual

Contents

Pepperl Plus Fuchs PF 128872 Inductive Sensor

Specifications

- **Model:** NCB8-18GM50-Z4-V1
- **Type:** Inductive sensor
- **Operating Distance:** 8mm flush
- **Output Type:** Normally open (NO)
- **Operating Voltage:** UB 3.5 … 30 V
- **Switching Frequency:** 0 … 1000 Hz
- **Protection:** Reverse polarity protection
- **Connection Type:** Connector plug M12 x 1, 4-pin brass, nickel-plated PBT IP67
- **Dimensions:** Length 65mm, Diameter 18mm

Product Usage Instructions

Installation

1. Mount the inductive sensor in a suitable location ensuring the rated operating distance is maintained.
2. Connect the sensor using the provided connector plug M12 x 1 with the specified wire colors.

Operation

Ensure the inductive sensor is powered within the specified voltage range. The LED indicators will show the switching state and stability alarm.

Maintenance

Regularly check and clean the sensing face of the sensor to maintain proper functionality.

FAQ

Q: What is the output type of the NCB8-18GM50-Z4-V1 sensor?

A: The output type is normally open (NO).

Q: What is the operating voltage range for this sensor?

**A:** The operating voltage range is UB 3.5 … 30 V.

Dimensions

M18 x 1

4

24

LED

50

65

6

M12 x 1
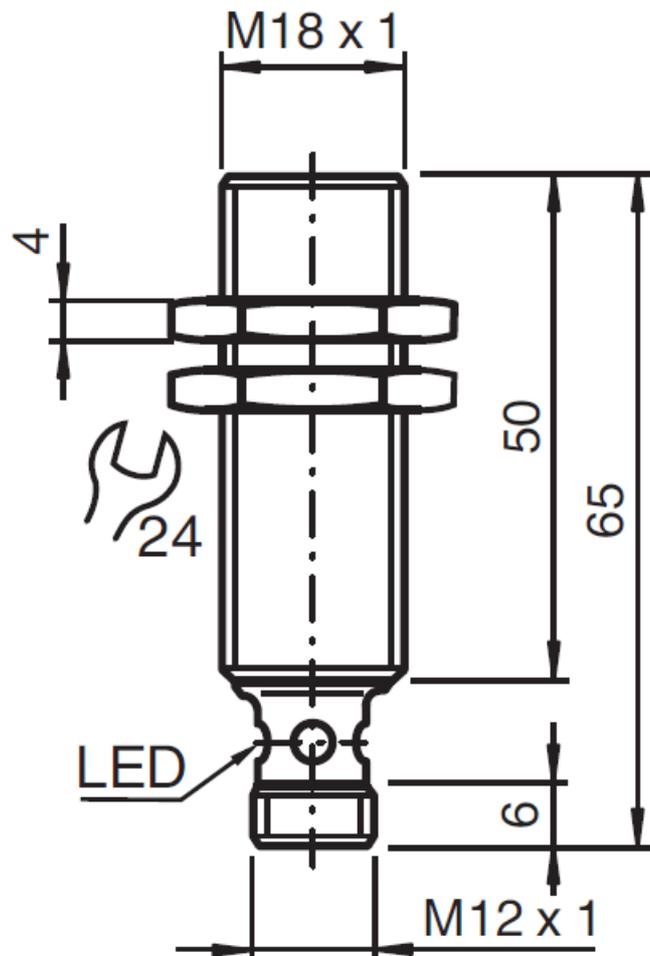
Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		Two-wire
Rated operating distance	s_n	8 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 … 6.48 mm (-25 … 70 °C (-13 … 158 °F)) 0…. 6.08 mm (-40 … -25 °C (-40 … -13 °F))
Reduction factor r_{Al}		0.4
Reduction factor Cu		0.4
Reduction factor r_{304}		0.7
Reduction factor brass		0.5
Output type		2-wire
Nominal ratings		
Operating voltage		U_B 3.5 … 30 V
Switching frequency	f	0 … 1000 Hz
Reverse polarity protection		reverse polarity-conductive

Technical Data

Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3.5 V
Temperature drift		± 15%
Operating current	I_L	2 … 100 mA
Off-state current	I_r	typ. 0.8 mA
Switching state indicator		LED, yellow
Stability alarm indicator		LED, red
Stability control-switch point		0,8 s_r … 0,9 s_r
Functional safety related parameters		
$MTTF_d$		1370 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Approvals and certificates		
UL approval		cULus Listed, General Purpose
CCC approval		CCC approval/marking is not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-40 … 70 °C (-40 … 158 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1 , 4-pin
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67
Dimensions		
Length		65 mm
Diameter		18 mm

Connection
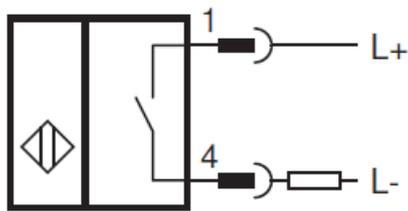
Connection Assignment
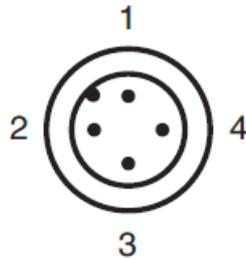
Connection Assignment

Wire colors in accordance with EN 60947-5-2

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

Operation

- Correlation between output signal/LED-function and stable operating distance ss/effective operating distance sr: (ss typ. 80 % of sr)
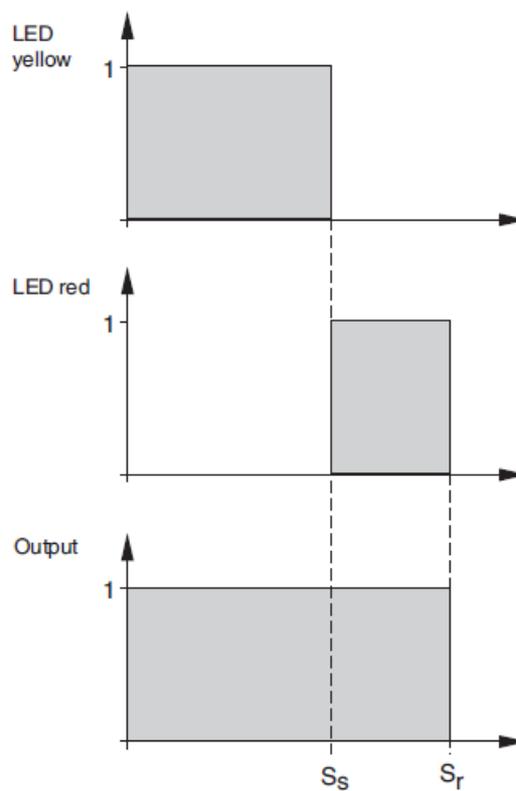
- **Refer to "General Notes Relating to Pepperl+Fuchs Product Information".**
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Documents / Resources
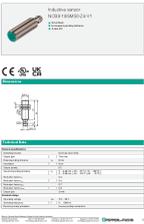
	Pepperl Plus Fuchs PF 128872 Inductive Sensor [pdf] Owner's Manual NCB8-18GM50-Z4-V1, PF 128872, PF 128872 Inductive Sensor, PF 128872, Inductive Sensor, Sensor

References

- **📷 Pepperl+Fuchs International. Industrial Sensors, Factory Automation, Process Automation, Intrinsic Safety, Explosion Protection**
- **User Manual**