

# Inductive sensor

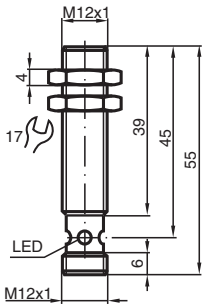
## NCB4-12GM40-Z4-V1



- 4 mm flush
- 2-wire DC
- Increased operating distance



### Dimensions



### Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		Two-wire
Rated operating distance	$s_n$	4 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 3.24 mm
Reduction factor $r_{Al}$		0.49
Reduction factor $r_{Cu}$		0.47
Reduction factor $r_{304}$		0.76
Output type		2-wire
Nominal ratings		
Operating voltage	$U_B$	3.5 ... 30 V
Switching frequency	$f$	0 ... 1000 Hz
Hysteresis	$H$	typ. 5 %
Reverse polarity protection		reverse polarity-conductive
Short-circuit protection		pulsing

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

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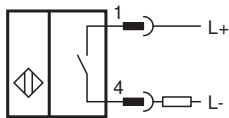
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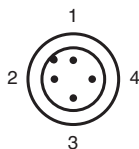
## Technical Data

Voltage drop	$U_d$	$\leq 3.5 \text{ V}$
Temperature drift		$\pm 15\%$
Operating current	$I_L$	2 ... 100 mA
Off-state current	$I_r$	0.4 ... 0.6 mA typ. 0.5 mA
Switching state indicator		LED, yellow
Stability alarm indicator		LED, red
Stability control-switch point		0,8 s <sub>r</sub> ... 0,9 s <sub>r</sub>
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1883 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated $\leq 36 \text{ V}$
<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 M12 x 1 , 4-pin
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67

## Connection



## Connection Assignment



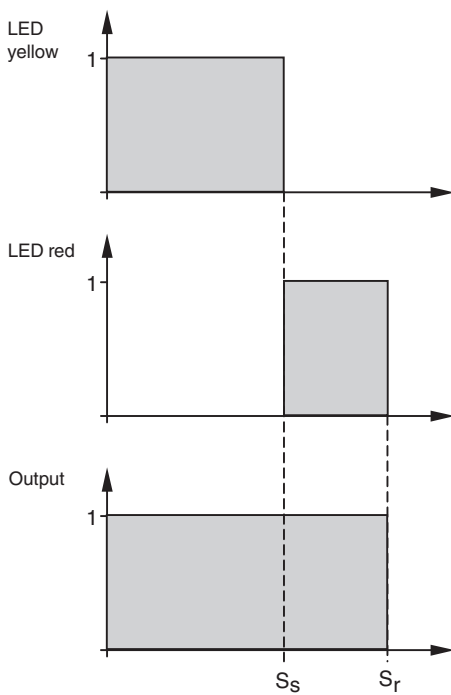
## Connection Assignment

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  $s_s$ /effective operating distance  $s_r$ : ( $s_s$  typ. 80 % of  $s_r$ )



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