

# Inductive sensor

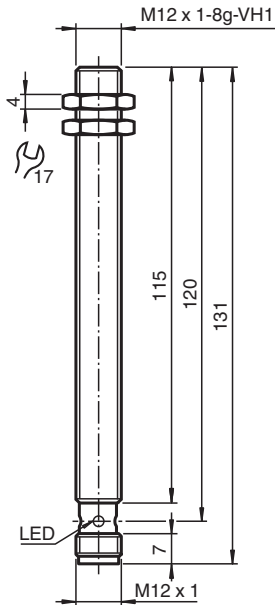
## NBB4-12GM115-E3-V1-Y301699



- 4 mm flush
- Increased operating distance
- Extended temperature range  
-40 ... +85 °C



### Dimensions



### Technical Data

#### General specifications

Rated operating distance	$s_n$	4 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 3.24 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 12 mm x 12 mm x 1 mm
Reduction factor $r_{Al}$		0.45
Reduction factor $r_{Cu}$		0.35
Reduction factor $r_{304}$		0.75
Reduction factor $r_{Brass}$		0.45
Output type		3-wire

#### Nominal ratings

Operating voltage	$U_B$	7 ... 30 V
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Release date: 2024-08-28 Date of issue: 2024-08-28 Filename: 301699\_eng.pdf

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

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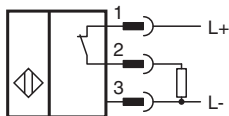
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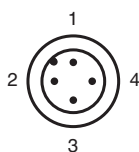
## Technical Data

Switching frequency	f	0 ... 2200 Hz
Hysteresis	H	typ. 5%
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 2$ V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 4 $\mu$ A at 25 °C
No-load supply current	$I_0$	$\leq 10$ mA
Time delay before availability	$t_v$	$\leq 200$ ms
Switching state indicator		Multihole-LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1484 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 85 °C (-40 ... 185 °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
Mass		50 g
<b>Dimensions</b>		
Length		130 mm
Diameter		12 mm
<b>General information</b>		
Scope of delivery		2 self locking nuts in scope of delivery

## 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)