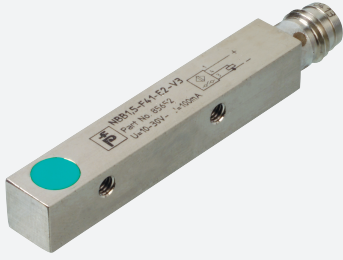


# Inductive sensor

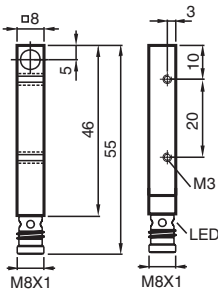
## NBB1,5-F41-E3-V3



- Basic series
- 1.5 mm flush
- 3-wire DC
- Metal housing



### Dimensions



### Technical Data

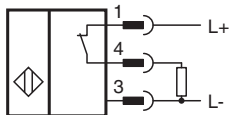
General specifications		
Switching function		Normally closed (NC)
Output type		PNP
Rated operating distance	$s_n$	1.5 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 1.215 mm
Reduction factor $r_{Al}$		0.45
Reduction factor $r_{Cu}$		0.35
Reduction factor $r_{304}$		0.75
Output type		3-wire
Nominal ratings		
Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 1500 Hz
Hysteresis	$H$	typ. 3 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing

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## Technical Data

Voltage drop	$U_d$	$\leq 3 \text{ V}$
Operating current	$I_L$	0 ... 100 mA
Off-state current	$I_r$	0 ... 0.5 mA typ.
No-load supply current	$I_0$	$\leq 15 \text{ mA}$
Time delay before availability	$t_v$	$\leq 20 \text{ ms}$
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1750 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>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)
<b>Mechanical specifications</b>		
Connection type		Connector plug M8 x 1 , 3-pin
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67
Mass		13.5 g
<b>Dimensions</b>		
Height		8 mm
Width		8 mm
Length		46 mm

## Connection



## Connection Assignment



## Connection Assignment

Wire colors in accordance with EN 60947-5-2

1		BN	(brown)
3		BU	(blue)
4		BK	(black)