

# Inductive sensor

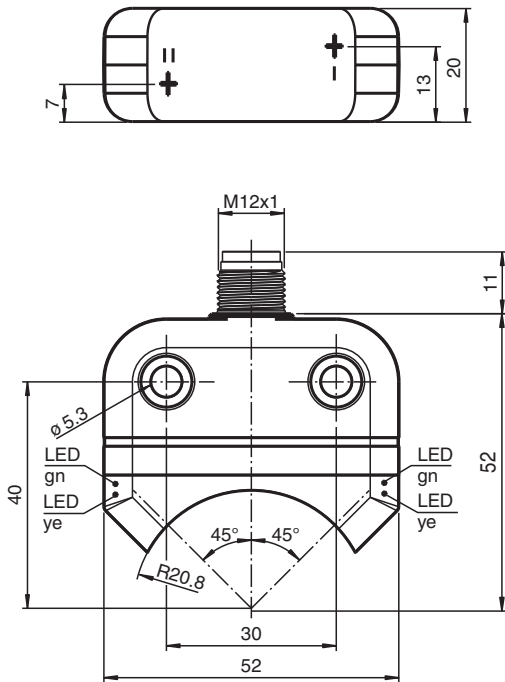
## NBN4-F25-E8-V1



- Direct mounting on standard actuators
- Small construction with sturdy plastic housing of protection class IP 67
- LED for power on
- M12 male connector



### Dimensions



### Technical Data

#### General specifications

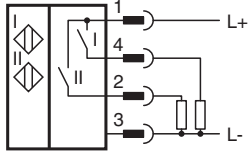
Switching function		2 x normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	4 mm
Installation		flush mountable
Output polarity		DC
Assured operating distance	$s_a$	0 ... 3.24 mm
Actual operating distance	$s_r$	3.6 ... 4.4 mm typ.
Reduction factor $r_{Al}$		0.5
Reduction factor $r_{Cu}$		0.4
Reduction factor $r_{304}$		1

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## Technical Data

Reduction factor $r_{S137}$		1.1
Output type		3-wire
<b>Nominal ratings</b>		
Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 1000 Hz
Hysteresis	$H$	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 2.5$ V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C
No-load supply current	$I_o$	$\leq 22.5$ mA
Time delay before availability	$t_v$	$\leq 100$ ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		860 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 Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 30 V DC Output Switching Current: 200 mA
CCC approval		CCC approval / marking not required for products rated $\leq 36$ 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
Connector housing		metal
Housing material		PBT
Sensing face		PC
Degree of protection		IP67
Connector		
Threading		M12 x 1
Number of pins		4
Mass		48 g
Tightening torque, fastening screws		M5 x 25 : $\leq 2.7$ Nm
Dimensions		
Height		20 mm
Width		52 mm
Length		52 mm
Note		Mounted on mechanical drive

## Connection Assignment



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Wire colors in accordance with EN 60947-5-2

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