

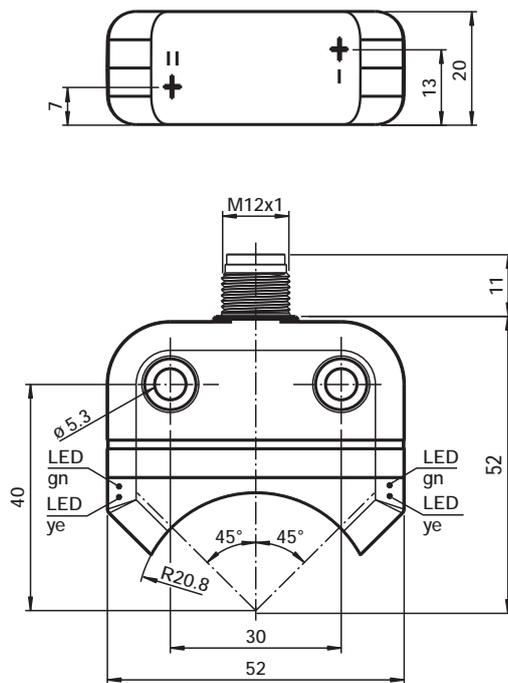


Inductive sensor NBN4-F25-E8-V1

- 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_{AI}		0.5
Reduction factor r_{Cu}		0.4

Release date: 2022-05-23 Date of issue: 2022-05-23 Filename: 264860_eng.pdf

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

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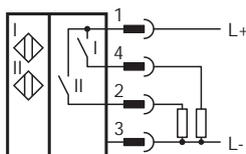
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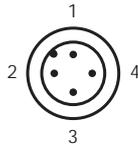
Technical Data

Reduction factor r_{304}		1
Reduction factor r_{S137}		1.1
Output type		3-wire
Nominal ratings		
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	≤ 2.5 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μ A at 25 °C
No-load supply current	I_0	≤ 22.5 mA
Time delay before availability	t_v	≤ 100 ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		860 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
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
Approvals and certificates		
UL approval		cULus Listed
CCC approval		CCC approval / marking not required for products rated ≤ 36 V
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1 , 4-pin
Connector housing		metal
Housing material		PBT
Sensing face		PC
Degree of protection		IP67
Mass		48 g
Tightening torque, fastening screws		M5 x 25 : 2.7 Nm
Note		Mounted on mechanical drive

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Accessories

	BT32	Activator for F25 series
	BT33	Activator for F25 series
	BT34	Activator for F25 series
	BT32XAS	Activator for F25 series
	BT43-RG-01	Activator for F25 series including protective housing and mounting plate

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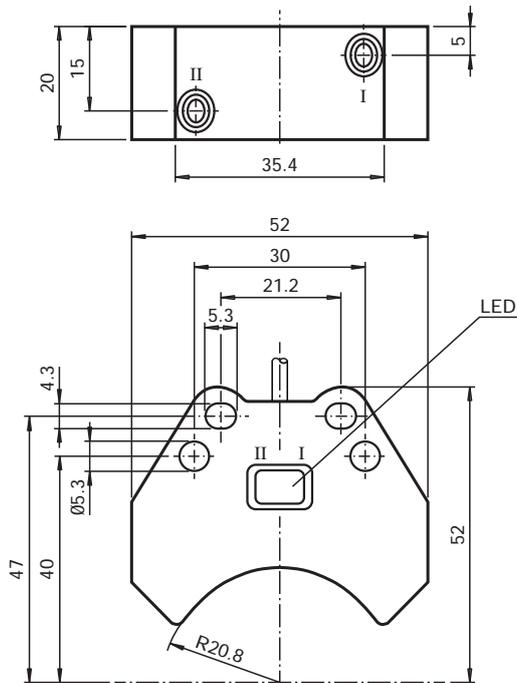


Inductive sensor NBN3-F25-E8-5M

- Direct mounting on standard actuators



Dimensions



Technical Data

General specifications

Switching function		2 x normally open (NO)
Output type		PNP
Rated operating distance	s_n	3 mm
Installation		flush mountable
Output polarity		DC
Assured operating distance	s_a	0 ... 2.43 mm
Actual operating distance	s_r	2.7 ... 3.3 mm typ.
Reduction factor r_{AI}		0.5
Reduction factor r_{Cu}		0.4

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

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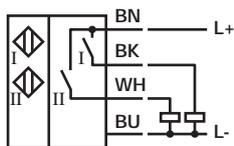
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Technical Data

Reduction factor r_{304}		1
Reduction factor r_{317}		1.1
Output type		3-wire
Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 500 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		all connections
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μ A at 25 °C
No-load supply current	I_0	≤ 25 mA
Time delay before availability	t_v	≤ 500 ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		660 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
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
Approvals and certificates		
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤ 36 V
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		cable PVC , 5 m
Core cross section		0.75 mm ²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
Tightening torque, fastening screws		M5 x 25 : 2.7 Nm
Note		Mounted on mechanical drive

Connection



Accessories

	BT32	Activator for F25 series
	BT32XS	Activator for F25 series
	BT32XAS	Activator for F25 series
	BT33	Activator for F25 series
	BT34	Activator for F25 series

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