



Properties

- Ø6.5 mm housing
- 1.5 mm, flush mountable
- DC, 3-wire switching output
- Cable and connector versions

Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Rated operating distance	1.5 mm
Installation	flush
Type of voltage	DC
Operating voltage	10 ... 30 V
Reverse polarity protection	✓
Operating current	0 ... 200 mA
Short-circuit protection	✓
Indication of the switching state	LED, yellow
Ambient temperature	-25 ... 85 °C (-13 ... 185 °F)
Housing material	Stainless steel 1.4305 / AISI 303
Protection degree	IP67

Model Number

		NBB1,5-6,5S16-E2	NBB1,5-6,5S30-E0	NBB1,5-6,5S30-E2	NBB1,5-6,5S20-E2-V3	NBB1,5-6,5S20-E3-V3	NBB1,5-6,5S40-E0-V3	NBB1,5-6,5S40-E1-V3	NBB1,5-6,5S40-E2-V3	NBB1,5-6,5S40-E3-V3
Switching element function	NPN NO	●								
	NPN NC									
	PNP NO	●	●		●			●		
	PNP NC					●			●	●
No-load supply current	≤ 10 mA	●			●					
	≤ 11 mA					●				
	≤ 2 mA							●		
	≤ 7 mA								●	●
Switching frequency	0 ... 1500 Hz		●	●				●	●	●
	0 ... 2000 Hz									
	0 ... 5000 Hz					●				
	0 ... 6000 Hz									●
Connection type	connector (M8 x 1), 3-pin	●	●	●	●	●	●	●	●	●
	cable PUR, 2 m	●	●	●						

Approvals and Certificates

CCC approval Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.

Dimensions

Length L [mm]	16	35	35	20	20	40	40	40	40
Diameter D [mm]		6.5				6.5	8		
Thread length l _t [mm]				0					
Cap length l ₁ [mm]				0					
Connector area l _c [mm]		0	9		5				
LED position	Pos.:	C	C	C	B	B	B	B	A

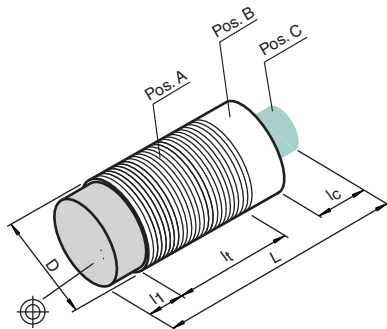
Accessories

This and more accessories can be found in chapter 10

See pages from 972 ... for cordsets

See pages 1068 ... for mounting aids

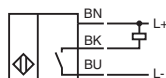
BF 6,5	Mounting flange, 6.5 mm
V3-GM	Female connector, M8, 3-pin, field attachable
V3-WM	Female connector, M8, 3-pin, field attachable
V3-GM-2M-PUR	Cable socket, M8, 3-pin, PUR cable
V3-WM-2M-PUR	Cable socket, M8, 3-pin, PUR cable



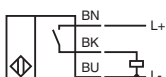
Electrical Connection



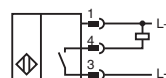
NBB1,5-6,5S30-E0



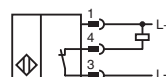
NBB1,5-6,5S16-E2
NBB1,5-6,5S30-E2



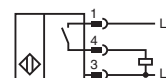
NBB1,5-6,5S40-E0-V3



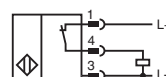
NBB1,5-6,5S40-E1-V3



NBB1,5-6,5S20-E2-V3
NBB1,5-6,5S40-E2-V3



NBB1,5-6,5S20-E3-V3
NBB1,5-6,5S40-E3-V3



Wire colors in accordance with EN 60947-5-2

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

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

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Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Rated operating distance	2 mm
Installation	flush
Type of voltage	DC
No-load supply current	≤ 15 mA
Reverse polarity protection	✓
Switching frequency	0 ... 3000 Hz
Operating current	0 ... 100 mA
Short-circuit protection	pulsing
Indication of the switching state	LED, yellow
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Housing material	brass, nickel-plated
Protection degree	IP67

Properties

- Ø6.5 mm housing
- 2 mm, flush mountable
- DC, 3-wire switching output
- Cable and connector versions

Model Number

Switching element function	green = preferred type					
	NPN NO	●	●	●	●	●
	NPN NC				●	
	PNP NO		●			●
	PNP NC					●
	Operating voltage	10 ... 30 V	●	●		
Connection type	5 ... 30 V			●	●	●
	Device connector M8 x 1 , 3-pin cable PVC , 2 m	●	●	●	●	●

Approvals and Certificates

UL approval	cULus Listed, General Purpose	●	●	●	●	●	●
CSA approval	cCSAus Listed, General Purpose	●	●	●	●	●	●
CCC approval	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.						

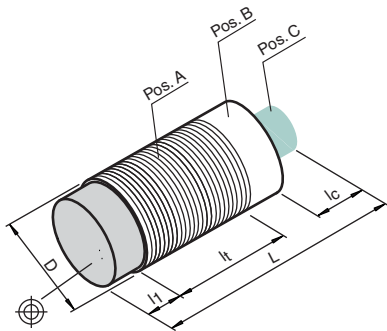
Dimensions

Length L [mm]		30	35
Diameter D [mm]		6,5	6,5 / 8
Thread length l _t [mm]			0
Cap length l ₁ [mm]			0
Connector area l _c [mm]		0	6
LED position	Pos.	Pos. C	Pos. B

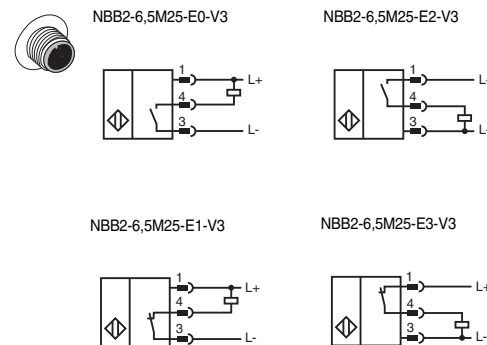
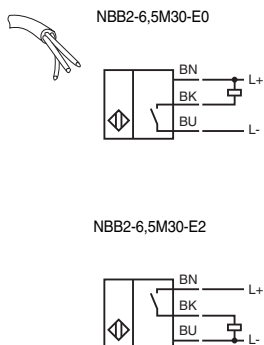
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See pages from 972 ... for cordsets See pages 1068 ... for mounting aids

- BF 6,5** Mounting flange, 6.5 mm
- V3-GM** Female connector, M8, 3-pin, field attachable
- V3-WM** Female connector, M8, 3-pin, field attachable
- V3-GM-2M-PUR** Cable socket, M8, 3-pin, PUR cable
- V3-WM-2M-PUR** Cable socket, M8, 3-pin, PUR cable



Electrical Connection



Wire colors in accordance with EN 60947-5-2

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