





**Technical Data**

For detailed data and product description refer to the data sheets at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

**General Data**

Rated operating distance	7 mm
Installation	non-flush
Type of voltage	DC
Operating voltage	10 ... 60 V
No-load supply current	≤ 15 mA
Reverse polarity protection	✓
Switching frequency	0 ... 400 Hz
Operating current	0 ... 200 mA
Short-circuit protection	pulsing
Indication of the switching state	LED, yellow
Ambient temperature	-40 ... 85 °C (-40 ... 185 °F)
Housing material	brass, nickel-plated
Protection degree	IP69K

**Properties**

- Ø12 mm housing
- 7 mm, non-flush mountable
- DC, 3-wire switching output
- Cable and connector versions

**Your Benefit**

- e1 Type approval
- Increased immunity 100 V/m
- Conducted noise immunity acc. to ISO 7637-2: pulse 1...4

**Model Number**

		NBN7-12GM45-E0-M	NBN7-12GM45-E2-M	NBN7-12GM50-E0-V1-M	NBN7-12GM50-E2-V1-M
Switching element function	NPN	●		●	
	NO				
Connection type	PNP		●		●
	NO				
Device connector M12 x 1, 4-pin cable PUR, 2 m		●	●	●	●

**Approvals and Certificates**

UL approval	cULus Listed, General Purpose	●	●	●	●
CSA approval	cCSAus Listed, General Purpose			●	●
	cCSAus Listed, General Purpose, Class 2 Power Source	●	●		
e1 Type approval	2006/28/EG	●	●	●	●

**Dimensions**

Length L [mm]	60	65
Diameter D [mm]	12	
Thread length l <sub>t</sub> [mm]	37	41
Cap length l <sub>1</sub> [mm]	8	
Connector area l <sub>c</sub> [mm]	16	6
LED position	Pos. B	

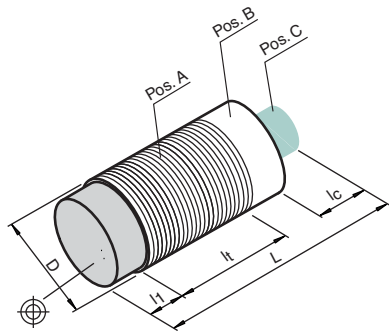
**Accessories**

This and more accessories can be found in chapter 10

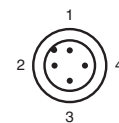
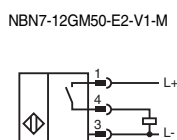
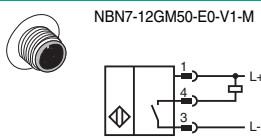
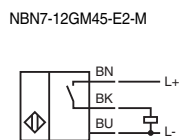
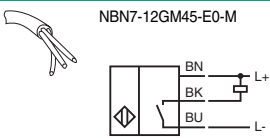
See pages from 972 ... for cordsets

See pages 1068 ... for mounting aids

- BF 12** Mounting flange, 12 mm
- EXG-12** Quick mounting bracket with dead stop
- V1-W-BK** 4-pin, M12 female field-attachable connector
- V1-G-2M-PUR** Cable socket, M12, 4-pin, PUR cable
- V1-W-2M-PUR** Cable socket, M12, 4-pin, PUR cable

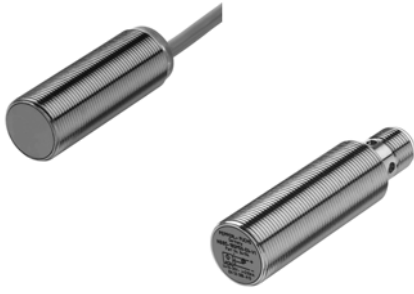


**Electrical Connection**



Wire colors in accordance with EN 60947-5-2

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



### Technical Data

For detailed data and product description refer to the data sheets at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

#### General Data

Rated operating distance	8 mm
Installation	flush
Type of voltage	DC
Operating voltage	10 ... 60 V
No-load supply current	≤ 10 mA
Reverse polarity protection	✓
Switching frequency	0 ... 400 Hz
Operating current	0 ... 200 mA
Short-circuit protection	pulsing
Indication of the switching state	LED, yellow
Ambient temperature	-40 ... 85 °C (-40 ... 185 °F)
Housing material	brass, nickel-plated
Protection degree	IP68 / IP69K

### Properties

- Ø18 mm housing
- 8 mm, flush mountable
- DC, 3-wire switching output
- Cable and connector versions

### Your Benefit

- e1 Type approval
- Increased immunity 100 V/m
- Conducted noise immunity acc. to ISO 7637-2: pulse 1...5

### Further Products

In this series, we offer additionally:

**NBB5-18GK50-E2-M**

**NBN8-18GK50-E2-M**

Technical data comparable to NBN8-18GK50-E2-M

but:  
Installation: NBB5... = 5 mm, flush  
NBN8... = 8 mm, non-flush

Operating voltage: 10 ... 65 VDC  
Operating current: 0 ... 300 mA  
Housing material: PPS  
Protection degree: IP68

**NBB8-18GM50-E2-M-150MM-3DT04**

Technical data like NBB8-18GM50-E2-V1-M but:  
Connection type: Cable connector Deutsch DT04 ,  
3-pin with PUR cable 150 mm

#### Model Number

green = preferred type

Switching element function	NPN	NO	●	●	●	●
	PNP	NO				
Connection type	Device connector M12 x 1 , 4-pin		●	●	●	●
	cable PUR , 2 m					

#### Approvals and Certificates

UL approval	cULus Listed, General Purpose	●	●	●	●
CSA approval	cCSAus Listed, General Purpose	●	●	●	●
e1 Type approval	2006/28/EG	●	●	●	●

#### Dimensions

Length L [mm]	50	65
Diameter D [mm]	18	
Thread length l <sub>t</sub> [mm]	47	50
Cap length l <sub>1</sub> [mm]	0	
Connector area l <sub>c</sub> [mm]	0	15
LED position	Pos. C	

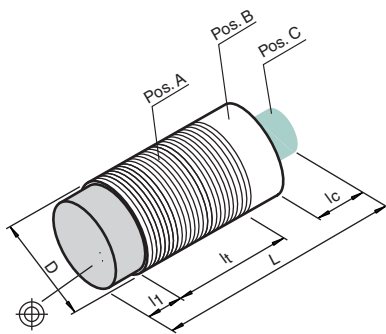
### Accessories

This and more accessories can be found in chapter 10

See pages from 972 ... for cordsets

See pages 1068 ... for mounting aids

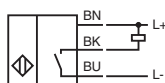
<b>EXG-18</b>	Quick mounting bracket with dead stop
<b>BF 18</b>	Mounting flange, 18 mm



### Electrical Connection



NBB8-18GM50-E0-M

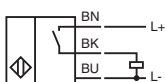


NBB5-18GK50-E2-M

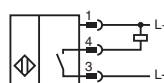
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NBB8-18GM50-E2-M-150MM-3DT04

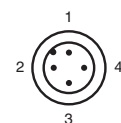
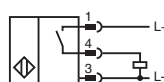
NBN8-18GK50-E2-M



NBB8-18GM50-E0-V1-M



NBB8-18GM50-E2-V1-M



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
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](http://www.pepperl-fuchs.com)

#### General Data

Rated operating distance	12 mm
Installation	non-flush
Type of voltage	DC
Operating voltage	10 ... 60 V
No-load supply current	≤ 10 mA
Reverse polarity protection	✓
Switching frequency	0 ... 200 Hz
Operating current	0 ... 200 mA
Short-circuit protection	pulsing
Ambient temperature	-40 ... 85 °C (-40 ... 185 °F)
Housing material	brass, nickel-plated
Protection degree	IP68 / IP69K

### Properties

- Ø18 mm housing
- 12 mm, non-flush mountable
- DC, 3-wire switching output
- Cable and connector versions

### Your Benefit

- e1 Type approval
- Increased immunity 100 V/m
- Conducted noise immunity acc. to ISO 7637-2: pulse 1...5

#### Model Number

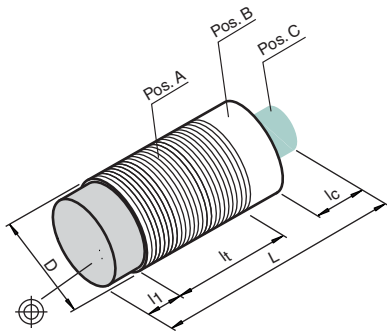
			green = preferred type		
Switching element function	NPN NO				
	PNP NO				
Indication of the switching state	LED, yellow				
	Multihole-LED, yellow				
Connection type	Device connector M12 x 1, 4-pin				
	cable PUR				

#### Approvals and Certificates

e1 Type approval	2004/104/EC			
	2006/28/EG			

#### Dimensions

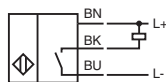
Length L [mm]	50	65
Diameter D [mm]	18	
Thread length l <sub>t</sub> [mm]	37	40
Cap length l <sub>1</sub> [mm]	10	
Connector area l <sub>c</sub> [mm]	0	15
LED position	Pos. C	



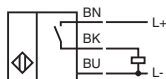
### Electrical Connection



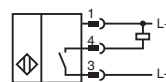
NBN12-18GM50-E0-M



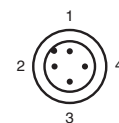
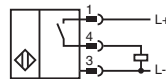
NBN12-18GM50-E2-M



NBN12-18GM50-E0-V1-M



NBN12-18GM50-E2-V1-M



Wire colors in accordance with EN 60947-5-2

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



### Technical Data

For detailed data and product description refer to the data sheets at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

#### General Data

Rated operating distance	15 mm
Installation	flush
Type of voltage	DC
Operating voltage	5 ... 60 V
No-load supply current	≤ 10 mA
Reverse polarity protection	✓
Switching frequency	0 ... 200 Hz
Operating current	0 ... 200 mA
Short-circuit protection	pulsing
Indication of the switching state	LED, yellow
Ambient temperature	-40 ... 85 °C (-40 ... 185 °F)
Housing material	brass, nickel-plated
Protection degree	IP68 / IP69K

### Properties

- Ø30 mm housing
- 15 mm, flush mountable
- DC, 3-wire switching output
- Cable and connector versions

### Your Benefit

- e1 Type approval
- Increased immunity 100 V/m
- Conducted noise immunity acc. to ISO 7637-2: pulse 1...5

### Further Products

In this series, we offer additionally:

**NBB10-30GK50-E2-M**

**NBN15-30GM50-E2-M**

Technical data comparable to

NBB15-30GM50-E2-M but:

Installation: NBB10... = 10 mm, flush

NBN15... = 15 mm, non-flush

Operating voltage: 10 ... 65 VDC

Operating current: 0 ... 300 mA

Housing material: PPS

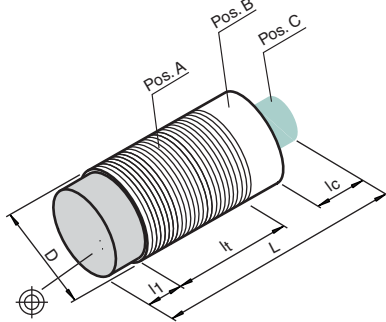
Protection degree: IP68

**NBB15-30GM50-E2-M-150MM-3DT04**

Technical data like NBB15-30GM50-E2-V1-M but:

Connection type: Cable connector Deutsch DT04 ,

3-pin with PUR cable 150 mm



#### Model Number

green = preferred type

Switching element function	NPN	NO	●	●	●	●
	PNP	NO				
Connection type	Device connector M12 x 1 , 4-pin		●	●	●	●
	cable PUR , 2 m					

#### Approvals and Certificates

UL approval	cULus Listed, General Purpose	●	●	●	●
CSA approval	cCSAus Listed, General Purpose	●	●	●	●
e1 Type approval	2006/28/EG	●	●	●	●

#### Dimensions

Length L [mm]	50	65
Diameter D [mm]	30	
Thread length l <sub>t</sub> [mm]	47	50
Cap length l <sub>c</sub> [mm]	0	
Connector area l <sub>c</sub> [mm]	0	15
LED position	Pos. C	

### Accessories This and more accessories can be found in chapter 10

See pages from 972 ... for cordsets

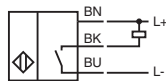
See pages 1068 ... for mounting aids

- BF 30** Mounting flange, 30 mm
- V1-G-BK** 4-pin, M12 female field-attachable connector
- EXG-30** Quick mounting bracket with dead stop
- V1-W-BK** 4-pin, M12 female field-attachable connector
- V1-G-2M-PUR** Cable socket, M12, 4-pin, PUR cable
- V1-W-2M-PUR** Cable socket, M12, 4-pin, PUR cable

### Electrical Connection



NBB15-30GM50-E0-M

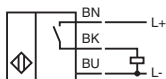


NBB15-30GM50-E2-M

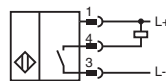
NBN15-30GK50-E2-M

NBB15-30GM50-E2-M-150MM-3DT04

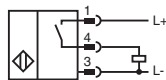
NBB10-30GK50-E2-M



NBB15-30GM50-E0-V1-M



NBB15-30GM50-E2-V1-M



Wire colors

A	BN
B	BU
C	BK

Wire colors in accordance with EN 60947-5-2

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

Date of issue 04/08/2015

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

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