



Properties

- Ø12 mm housing
- 2 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	2 mm
Installation	flush
Type of voltage	DC
Operating voltage	10 ... 30 V
No-load supply current	≤ 15 mA
Reverse polarity protection	✓
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

Model Number

		NBB2-12GM30-E2	NBB2-12GM40-E0	NBB2-12GM40-E1	NBB2-12GM40-E2	NBB2-12GM40-E3	NBB2-12GM30-E2-V1	NBB2-12GM40-E0-V1	NBB2-12GM40-E2-V1
Switching element function	NPN NO	●						●	
	NPN NC			●					
	PNP NO	●			●		●		●
	PNP NC					●			
Switching frequency	0 ... 1000 Hz		●	●	●	●		●	●
	0 ... 800 Hz	●					●		
Operating current	0 ... 100 mA		●	●	●	●		●	●
	0 ... 200 mA	●					●	●	●
Connection type	Device connector M12 x 1 , 4-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.								

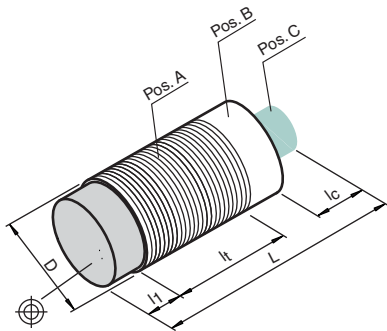
Dimensions

Length L [mm]	30	40	45	50
Diameter D [mm]		12		
Thread length l _t [mm]	27	37	30	50
Cap length l ₁ [mm]		0		
Connector area l _c [mm]		0		6
LED position			Pos. C	

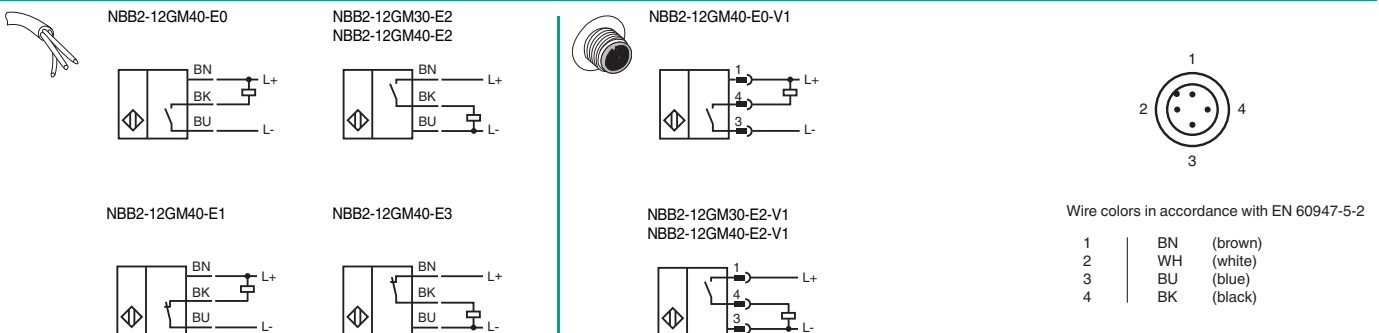
Accessories

This and more accessories can be found in chapter 10
See pages from 972 ... for cordsets See pages 1068 ... for mounting aids

- BF 12** Mounting flange, 12 mm
- EXG-12** Quick mounting bracket with dead stop
- V1-G-BK** 4-pin, M12 female field-attachable connector
- 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





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
Operating voltage	10 ... 30 V
Reverse polarity protection	✓
Operating current	0 ... 200 mA
Short-circuit protection	pulsing
Housing material	brass, nickel-plated
Protection degree	IP67

Model Number

		NBB2-12GM50-E0	NBB2-12GM50-E1	NBB2-12GM50-E2	NBB2-12GM60-A0	NBB2-12GM60-A2	NBB2-12GM50-E0-V1	NBB2-12GM50-E1-V1	NBB2-12GM50-E2-V1	NBB2-12GM60-E2-V1	NBB2-12GM60-A0-V1	NBB2-12GM60-A2-V1
Switching element function	NPN NO/NC	●					●					
	NPN NO		●					●				
	NPN NC			●					●			
	PNP NO/NC				●					●		
	PNP NO					●					●	
	No-load supply current	≤ 15 mA										
	≤ 20 mA	●	●	●	●	●	●	●	●	●	●	●
Switching frequency	0 ... 1000 Hz											
	0 ... 1500 Hz	●	●	●	●	●	●	●	●	●	●	●
Indication of the switching state	LED, yellow	●	●	●	●	●	●	●	●	●	●	●
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)	●	●	●	●	●	●	●	●	●	●	●
	-40 ... 70 °C (-40 ... 158 °F)								●			
Connection type	Device connector M12 x 1, 4-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]	50	50	50	60	60	65	65	65	70	70	70	
Diameter D [mm]	12											
Thread length l _t [mm]	50	50	50	60	60	50	50	40	70	70		
Cap length l ₁ [mm]	0											
Connector area l _c [mm]	0			6			10			0		
LED position	Pos.: C C C C C C C C C - C 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 12	Mounting flange, 12 mm
EXG-12	Quick mounting bracket with dead stop
V1-G-BK	4-pin, M12 female field-attachable connector
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

Proximity Sensors, Inductive Sensors, cylindrical

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Properties

- Ø12 mm housing
- 2 mm, flush mountable
- DC, 3-wire and 4-wire switching output versions
- Cable and connector versions

Further Products

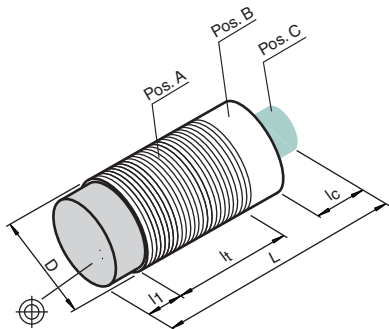
In this series, we offer additionally:

NBB2-12GM60-E2-T

Technical data similar to NBB2-12GM50-E2 but:
 Operating voltage: 10 ... 65 V
 No-load supply current: ≤ 10 mA
 Operating current: 0 ... 300 mA
 Ambient temperature: -25 ... 100 °C (-13 ... 212 °F)

NBB2-12GM50-E2-T-V1

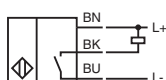
Technical data similar to NBB2-12GM50-E2-V1 but:
 Operating voltage: 10 ... 65 V
 No-load supply current: ≤ 10 mA
 Operating current: 0 ... 300 mA
 Ambient temperature: -25 ... 100 °C (-13 ... 212 °F)



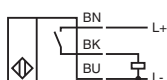
Electrical Connection



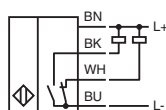
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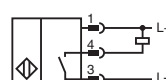
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NBB2-12GM60-E2-T



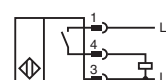
NBB2-12GM60-A0



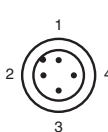
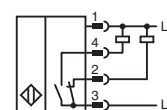
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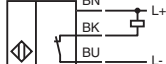
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NBB2-12GM50-E2-T-V1
NBB2-12GM50-E2-V1



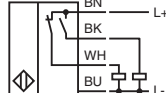
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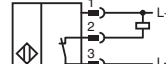
NBB2-12GM50-E1



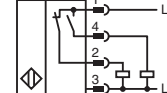
NBB2-12GM60-A2



NBB2-12GM50-E1-V1



NBB2-12GM60-A2-V1



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

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