



Properties

- Ø8 mm housing
- 2 mm, flush mountable
- DC, 3-wire switching output
- Connector version

Your Benefit

- ATEX-approval for zone 2 and zone 22

Technical Data

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

Model Number	NBB2-8GM40-E2-V1-3G-3D
Rated operating distance	2 mm
Installation	flush
Switching element function	PNP NO
Operating voltage	10 ... 30 V DC
No-load supply current	≤ 15 mA
Reverse polarity protection	✓
Switching frequency	0 ... 1500 Hz
Operating current	0 ... 100 mA
Short-circuit protection	pulsing
Indication of the switching state	Multihole-LED, yellow
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Housing material	brass, nickel-plated
Protection degree	IP67
Connection type	Device connector M12 x 1 , 4-pin



Use in the Hazardous Area

Use in the hazardous area	see instruction manuals
Category	3G; 3D

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.

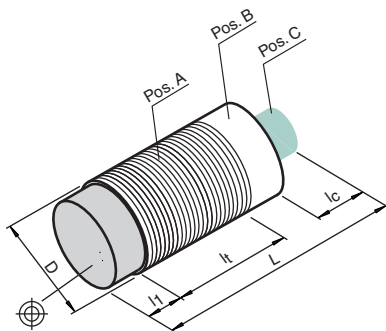
Dimensions

Length L [mm]	65
Diameter D [mm]	8 / 12
Thread length l _t [mm]	40
Cap length l ₁ [mm]	0
Connector area l _c [mm]	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

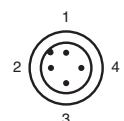
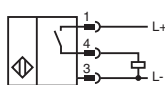
BF 8	Mounting flange, 8 mm
EXG-08	Quick mounting bracket with dead stop



Electrical Connection



NBB2-8GM40-E2-V1-3G-3D



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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Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveng.com - www.stevenengineering.com



Properties

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

Your Benefit

- ATEX-approval for zone 2 and zone 22

Technical Data

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

General Data

Switching element function	DC	NO
Operating voltage	5 ... 60 V DC	
Reverse polarity protection	tolerant	
Operating current	2 ... 100 mA	
Short-circuit protection	pulsing	
Indication of the switching state	LED, yellow	
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)	
Protection degree	IP67	

Model Number

		NBB2-12GM40-Z0-3G-3D	NCN4-12GM40-Z0-3G-3D	NCB2-12GM40-Z0-V1-3G-3D
Rated operating distance	green = preferred type			
	2 mm	●		●
Installation	4 mm		●	
	flush	●		●
Switching frequency	non-flush		●	
	0 ... 1000 Hz	●		
Housing material	0 ... 800 Hz		●	●
	Stainless steel 1.4305 / AISI 303		●	●
Connection type	brass, nickel-plated	●		
	Device connector M12 x 1, 4-pin cable PVC, 2 m	●	●	●

Use in the Hazardous Area

Use in the hazardous area	see instruction manuals	●	●	●
Category	3G; 3D	●	●	●

Approvals and Certificates

UL approval	cULus Listed, General Purpose	●	●	●
CSA approval	cCSAus Listed, General Purpose	●	●	●
CCC approval	Certified by China Compulsory Certification (CCC)	●	●	●

Dimensions

		40	12	55
Length L [mm]				
Diameter D [mm]				
Thread length l_t [mm]		37	32	39
Cap length l_1 [mm]		0	5	0
Connector area l_c [mm]			0	6
LED position	Pos.:		C	B

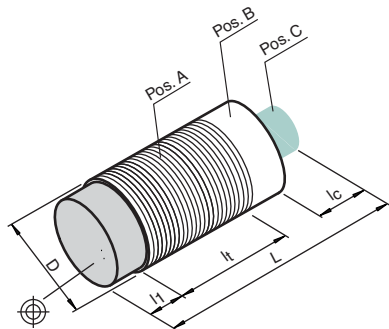
Accessories

This and more accessories can be found in chapter 10

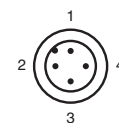
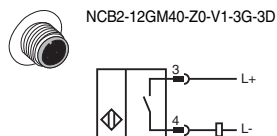
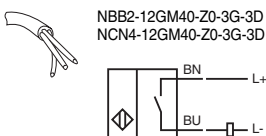
See pages from 972 ... for cordsets

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-BK	4-pin, M12 female field-attachable connector



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

General Data

Operating voltage	10 ... 30 V DC
Reverse polarity protection	✓
Short-circuit protection	pulsing
Indication of the switching state	LED, yellow
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Protection degree	IP67

Model Number

Properties

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

Your Benefit

- ATEX-approval for zone 2 and zone 22

		NCB2-12GM40-E2-3G-3D	NBB2-12GM60-A2-3G-3D	NBB4-12GM50-E2-3G-3D	NCN4-12GM40-E2-3G-3D	NBB4-12GM50-E2-V1-3G-3D	NCN4-12GM40-E2-V1-3G-3D
Rated operating distance	2 mm	●	●				
	4 mm						
Installation	flush	●	●	●	●	●	●
	non-flush				●		●
Switching element function	PNP NO/NC		●				
	PNP NO	●		●	●	●	●
No-load supply current	≤ 15 mA	●		●	●	●	●
	≤ 20 mA		●				
Switching frequency	0 ... 1000 Hz	●	●	●		●	
	0 ... 1200 Hz				●		●
Operating current	0 ... 150 mA			●		●	
	0 ... 200 mA	●	●		●	●	●
Housing material	Stainless steel 1.4305 / AISI 303	●			●	●	●
	brass, nickel-plated		●	●		●	●
Connection type	Device connector M12 x 1, 4-pin					●	●
	cable PVC, 2 m	●	●	●	●		

Use in the Hazardous Area

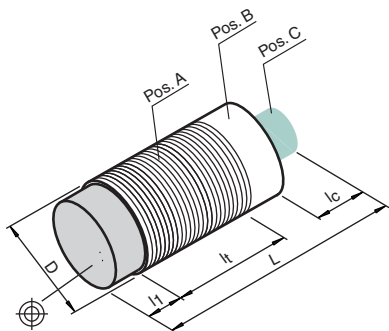
Use in the hazardous area	see instruction manuals	●	●	●	●	●	●
Category	3G; 3D	●	●	●	●	●	●

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]	40	60	50	40	65	50	
Diameter D [mm]	12						
Thread length l _t [mm]	37	60	47	32	49	45	
Cap length l ₁ [mm]	0	0	0	5	0	5	
Connector area l _c [mm]	0						
LED position	Pos.:	C	C	C	C	B	B



Accessories

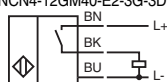
This and more accessories can be found in chapter 10
See pages from 972 ... for cordsets See pages 1068 ... for mounting aids

- BF 12** Mounting flange, 12 mm
- 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

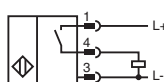
Electrical Connection



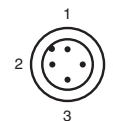
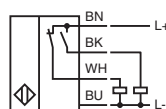
NBB4-12GM50-E2-3G-3D
NCB2-12GM40-E2-3G-3D
NCN4-12GM40-E2-3G-3D



NBB4-12GM50-E2-V1-3G-3D
NCN4-12GM40-E2-V1-3G-3D



NBB2-12GM60-A2-3G-3D



Wire colors in accordance with EN 60947-5-2

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

1
.1.1

Proximity Sensors, Inductive Sensors, cylindrical



Properties

- Ø18 mm housing
- 5 mm, flush and 8 mm, non-flush mountable versions
- DC, 2-wire switching output
- Cable and connector versions

Your Benefit

- ATEX-approval for zone 2 and zone 22

Technical Data

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

General Data

Operating voltage	5 ... 60 V DC
Reverse polarity protection	tolerant
Operating current	2 ... 100 mA
Short-circuit protection	pulsing
Indication of the switching state	LED, yellow
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Protection degree	IP67

Model Number

	green = preferred type	NBB5-18GM40-Z0-3G-3D	NCB5-18GM40-Z0-3G-3D	NCB5-18GM40-Z1-3G-3D	NCN8-18GM40-Z0-3G-3D	NCB5-18GM40-Z0-V1-3G-3D
Rated operating distance	5 mm	●	●	●	●	●
	8 mm				●	●
Installation	flush	●	●	●		●
	non-flush				●	
Switching element function	DC NO	●	●		●	●
	DC NC			●		
Switching frequency	0 ... 300 Hz				●	
	0 ... 350 Hz		●	●		●
	0 ... 500 Hz	●				
Housing material	Stainless steel 1.4305 / AISI 303		●	●	●	●
	brass, nickel-plated	●				
Connection type	Device connector M12 x 1, 4-pin cable PVC, 2 m	●	●	●	●	●

Use in the Hazardous Area

Use in the hazardous area	see instruction manuals	●	●	●	●	●
Category	3G; 3D	●	●	●	●	●

Approvals and Certificates

UL approval	cULus Listed, General Purpose	●	●	●	●	●
CSA approval	cCSAus Listed, General Purpose	●	●	●	●	●
CCC approval	Certified by China Compulsory Certification (CCC)	●	●	●	●	●

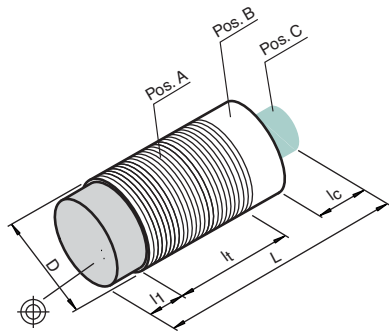
Dimensions

	40	40	40	40	55
Length L [mm]	40	40	40	40	55
Diameter D [mm]	18	18	18	18	18
Thread length l _t [mm]	37	37	37	27	40
Cap length l ₁ [mm]	0	0	0	10	0
Connector area l _c [mm]	0	0	0	0	15
LED position	Pos. C				

Accessories

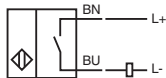
This and more accessories can be found in chapter 10
See pages from 972 ... for cordsets See pages 1068 ... for mounting aids

- BF 18 Mounting flange, 18 mm
- EXG-18 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

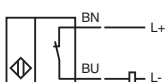


Electrical Connection

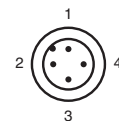
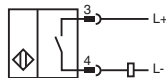
NCN8-18GM40-Z0-3G-3D
NBB5-18GM40-Z0-3G-3D
NCB5-18GM40-Z0-3G-3D



NCB5-18GM40-Z1-3G-3D



NCB5-18GM40-Z0-V1-3G-3D



Wire colors in accordance with EN 60947-5-2

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



Properties

- Ø30 mm housing
- 10 mm and 15 mm, flush and non-flush mountable versions
- DC, 2-wire switching output
- Cable version

Your Benefit

- ATEX-approval for zone 2 and zone 22

Technical Data

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

General Data

Operating voltage	5 ... 60 V DC
Reverse polarity protection	tolerant
Operating current	2 ... 100 mA
Short-circuit protection	pulsing
Indication of the switching state	all direction LED, yellow
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Housing material	Stainless steel 1.4305 / AISI 303
Protection degree	IP67
Connection type	cablc PVC , 2 m

Model Number

		NCB10-30GM40-Z0-3G-3D	NCN15-30GM40-Z0-3G-3D	NCB10-30GM40-Z0-V1-3G-3D
Rated operating distance	10 mm	●		●
	15 mm		●	
Installation	flush	●		●
	non-flush		●	
Switching element function	DC NO	●	●	
	DC NC			●
Switching frequency	0 ... 100 Hz		●	
	0 ... 150 Hz	●		●
Connection type	cablc PVC , 2 m			
	Device connector M12 x 1 , 4-pin			

Use in the Hazardous Area

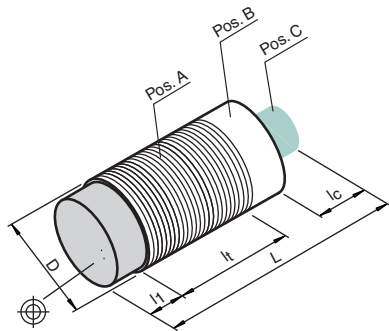
Use in the hazardous area	see instruction manuals	●	●	●
Category	3G; 3D	●	●	●

Approvals and Certificates

UL approval	cULus Listed, General Purpose	●	●	●
CSA approval	cCSAus Listed, General Purpose	●	●	●
CCC approval	Certified by China Compulsory Certification (CCC)		●	

Dimensions

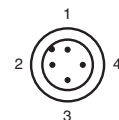
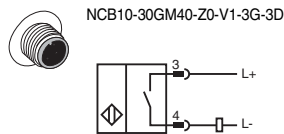
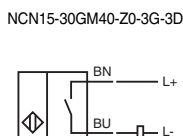
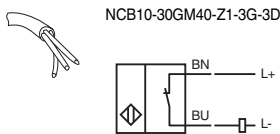
Length L [mm]		40		55
Diameter D [mm]			30	
Thread length l _t [mm]		37	22	40
Cap length l ₁ [mm]		0	18	0
Connector area l _c [mm]			0	15
LED position			Pos. C	



Accessories This and more accessories can be found in chapter 10

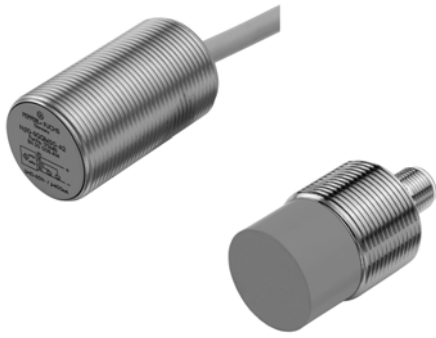
	See pages from 972 ... for cordsets	See pages 1068 ... for mounting aids
BF 30	Mounting flange, 30 mm	
V1-W-BK	4-pin, M12 female field-attachable connector	
V1-G-BK	4-pin, M12 female field-attachable connector	

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

General Data

Reverse polarity protection	✓
Operating current	0 ... 200 mA
Short-circuit protection	pulsing
Indication of the switching state	LED, yellow
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Protection degree	IP67

Model Number

		NBB15-30GM50-E2-3G-3D	NJ10-30GM50-E2-3G-3D	NJ15-30GM50-E2-3G-3D	NJ10-30GM50-E2-V1-3G-3D	NJ15-30GM50-E2-V1-3G-3D
Rated operating distance	10 mm	●	●	●	●	●
	15 mm	●	●	●	●	●
Installation	flush	●	●	●	●	●
	non-flush	●	●	●	●	●
Switching element function	PNP NO	●	●	●	●	●
Operating voltage	10 ... 30 V DC	●	●	●	●	●
	10 ... 60 V DC	●	●	●	●	●
No-load supply current	≤ 15 mA	●	●	●	●	●
	≤ 9 mA	●	●	●	●	●
Switching frequency	0 ... 200 Hz	●	●	●	●	●
	0 ... 500 Hz	●	●	●	●	●
	0 ... 650 Hz	●	●	●	●	●
Housing material	Stainless steel 1.4305 / AISI 303	●	●	●	●	●
	brass, nickel-plated	●	●	●	●	●
Connection type	Device connector M12 x 1, 4-pin	●	●	●	●	●
	cable PVC, 2 m	●	●	●	●	●

Properties

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

Your Benefit

- ATEX-approval for zone 2 and zone 22

Use in the Hazardous Area

Use in the hazardous area	see instruction manuals	●	●	●	●	●
Category	3G; 3D	●	●	●	●	●

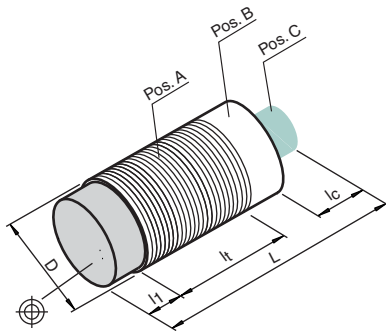
Approvals and Certificates

UL approval	cULus Listed, General Purpose	●	●	●	●	●
CSA approval	cCSAus Listed, General Purpose	●	●	●	●	●
CCC approval	Certified by China Compulsory Certification (CCC)	●	●	●	●	●

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			65	
Diameter D [mm]	30	30			30	
Thread length l _t [mm]	32	47	50	32	50	32
Cap length l ₁ [mm]	0	0	0	18	0	18
Connector area l _c [mm]	0	0			15	
LED position	Pos.:	C	A	A	C	C



Accessories

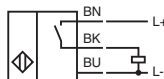
This and more accessories can be found in chapter 10

- V1-G-BK See pages from 972 ... for cordsets See pages 1068 ... for mounting aids
4-pin, M12 female field-attachable connector
- V1-W-BK
4-pin, M12 female field-attachable connector

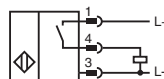
Electrical Connection



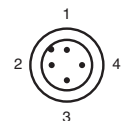
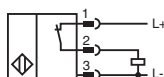
NBB15-30GM50-E2-3G-3D
NJ10-30GM50-E2-3G-3D
NJ15-30GM50-E2-3G-3D



NJ10-30GM50-E2-V1-3G-3D
NJ15-30GM50-E2-V1-3G-3D



NBB15-30GM50-E3-V1-3G-3D



Wire colors in accordance with EN 60947-5-2

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