



Technical Data

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

General Data

Switching frequency	0 ... 30 Hz
Operating current	2 ... 100 mA
Short-circuit protection	pulsing
Indication of the switching state	LED, yellow
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Housing material	PA
Protection degree	IP69K
Connection type	Device connector M12 x 1 , 4-pin



Properties

- Flexible, compact VariKont-L housing
- 20 mm, flush and 40 mm, non-flush mountable versions
- DC, 2-wire switching output
- Connector version

Your Benefit

- All-around visible status display
- Sensor head can be aligned in 5 different positions
- Mounting base with quick clamping lever for swift mounting
- Rotatable connector allows all orientations of the attached cordset

Model Number

		NBB20-L2-Z0-V1	NBB20-L2-Z4-V1	NBB20-L2-Z5-V1	NBN40-L2-Z0-V1	NBN40-L2-Z4-V1	NBN40-L2-Z5-V1
Rated operating distance	20 mm	●	●	●			
	40 mm				●	●	●
Installation	flush	●	●	●			
	non-flush				●	●	●
Switching element function	NO	●	●	●	●	●	●
	NC			●			●
Operating voltage	3.8 ... 30 V DC		●	●		●	●
	5 ... 30 V DC	●			●		●
Reverse polarity protection	✓		●	●		●	●
	tolerant	●			●		

Approvals and Certificates

		NBB20-L2-Z0-V1	NBB20-L2-Z4-V1	NBB20-L2-Z5-V1	NBN40-L2-Z0-V1	NBN40-L2-Z4-V1	NBN40-L2-Z5-V1
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.						

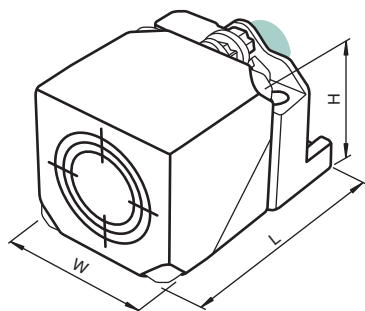
Dimensions

Length L [mm]	67
Width W [mm]	40
Height H [mm]	40

Accessories

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

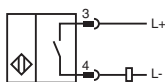
V1-G-BK	4-pin, M12 female field-attachable connector
V1-W-BK	4-pin, M12 female field-attachable connector
V1-G-2M-PUR	Cable socket, M12, 4-pin, PUR cable
V1-W-2M-PUR	Cable socket, M12, 4-pin, PUR cable
MHW 01	Modular mounting bracket
MH 02-L	Mounting aid



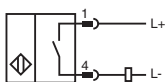
Electrical Connection



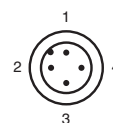
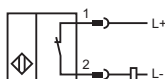
NBB20-L2-Z0-V1
NBN40-L2-Z0-V1



NBB20-L2-Z4-V1
NBN40-L2-Z4-V1



NBB20-L2-Z5-V1
NBN40-L2-Z5-V1



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".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 4411
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

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



1
.1.2



Proximity Sensors, Inductive Sensors, rectangular types

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
No-load supply current	≤ 20 mA
Reverse polarity protection	✓
Operating current	0 ... 200 mA
Short-circuit protection	pulsing
Operating voltage display	LED, green
Indication of the switching state	LED, yellow
Ambient temperature	-25 ... 85 °C (-13 ... 185 °F)
Housing material	PA
Protection degree	IP69K
Connection type	Device connector M12 x 1 , 4-pin



Properties

- Flexible, compact VariKont-L housing
- 20 mm, flush and 40 mm, non-flush mountable versions
- DC, 3-wire and 4-wire switching output versions
- Connector version

Your Benefit

- All-around visible status display
- Sensor head can be aligned in 5 different positions
- Mounting base with quick clamping lever for swift mounting
- Rotatable connector allows all orientations of the attached cordset

Further Products

In this series, we offer additionally:

NBB20-L2-A2-T-V1

Technical data like NBB20-L2-A2-V1 but:
Ambient temperature: -25 ... 100 °C (-13 ... 212 °F)

Model Number

Rated operating distance	green = preferred type	20 mm	40 mm
Installation	flush	non-flush	
Switching element function	NPN	NO/NC	
	NPN	NO	
	PNP	NO/NC	
Switching frequency	PNP	NO	
	0 ... 100 Hz	0 ... 150 Hz	

NBB20-L2-E0-V1	NBB20-L2-E2-V1	NBB20-L2-A0-V1	NBB20-L2-A2-V1	NBN40-L2-E0-V1	NBN40-L2-E2-V1	NBN40-L2-A0-V1	NBN40-L2-A2-V1
●	●	●	●				
●	●	●	●	●	●	●	●
				●	●	●	●
●		●					
	●		●				
				●	●	●	●
●	●	●	●	●	●	●	●

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

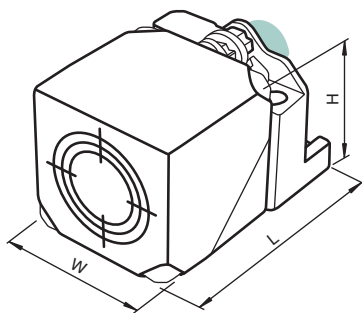
Length L [mm]	67
Width W [mm]	40
Height H [mm]	40

Accessories

This and more accessories can be found in chapter 10

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

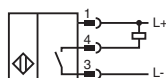
- V1-G-BK 4-pin, M12 female field-attachable connector
- V1-W-BK 4-pin, M12 female field-attachable connector
- V1-G-2M-PUR Cable socket, M12, 4-pin, PUR cable
- V1-W-2M-PUR Cable socket, M12, 4-pin, PUR cable
- MHW 01 Modular mounting bracket
- MH 02-L Mounting aid



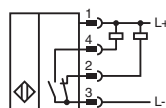
Electrical Connection



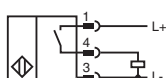
NBB20-L2-E0-V1
NBN40-L2-E0-V1



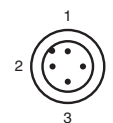
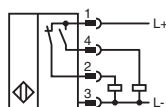
NBB20-L2-A0-V1
NBN40-L2-A0-V1



NBB20-L2-E2-V1
NBN40-L2-E2-V1

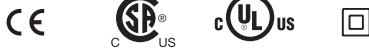


NBB20-L2-A2-T-V1
NBB20-L2-A2-V1
NBN40-L2-A2-V1



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
No-load supply current	≤ 20 mA
Reverse polarity protection	✓
Operating current	0 ... 200 mA
Short-circuit protection	pulsing
Operating voltage display	LED, green
Indication of the switching state	LED, yellow
Ambient temperature	-25 ... 85 °C (-13 ... 185 °F)
Housing material	PA-GF35 metal base Xylan coated metal mounting flange Xylan coated.
Protection degree	IP69K
Connection type	Device connector M12 x 1, 4-pin



Properties

- Flexible, compact VariKont-L housing
- 20 mm, flush and 40 mm, non-flush mountable versions
- DC, 3-wire and 4-wire switching output versions
- Connector version

Your Benefit

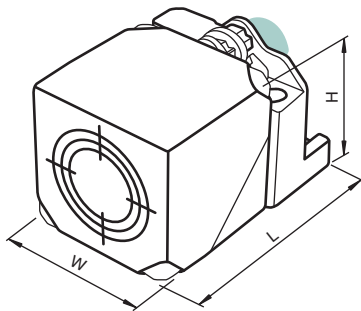
- All-around visible status display
- Sensor head can be aligned in 5 different positions
- Mounting base with quick clamping flange for swift mounting
- Rotatable connector allows all orientations of the attached cordset

Further Products

In this series, we offer additionally:

NBB20-L2M-A2-T-V1

Technical data like NBB20-L2M-A2-V1 but:
Ambient temperature: -25 ... 100 °C (-13 ... 212 °F)
Housing material: PA-GF35
metal base powder coated
metal mounting flange powder coated.



Model Number

		NBB20-L2M-E0-V1	NBB20-L2M-E2-V1	NBB20-L2M-A0-V1	NBB20-L2M-A2-V1	NBN40-L2M-E0-V1	NBN40-L2M-E2-V1	NBN40-L2M-A0-V1	NBN40-L2M-A2-V1
Rated operating distance	20 mm	●	●	●	●				
	40 mm					●	●	●	●
Installation	flush	●	●	●	●				
	non-flush					●	●	●	●
Switching element function	NPN NO/NC			●				●	
	NPN NO	●							
	PNP NO/NC				●				
	PNP NO		●				●		●
Switching frequency	0 ... 100 Hz					●	●	●	●
	0 ... 150 Hz	●	●	●	●				

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]	67
Width W [mm]	40
Height H [mm]	40

Accessories

This and more accessories can be found in chapter 10

See pages from 972 ... for cordsets

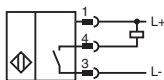
See pages 1068 ... for mounting aids

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
MHW 01	Modular mounting bracket
MH 02-L	Mounting aid

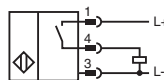
Electrical Connection



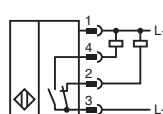
NBB20-L2M-E0-V1
NBN40-L2M-E0-V1



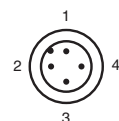
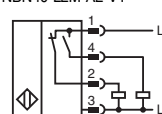
NBB20-L2M-E2-V1
NBN40-L2M-E2-V1



NBB20-L2M-A0-V1
NBN40-L2M-A0-V1



NBB20-L2M-A2-T-V1
NBB20-L2M-A2-V1
NBN40-L2M-A2-V1



Wire colors in accordance with EN 60947-5-2

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



1
.1.2



Properties

- Flexible, compact VariKont-L housing
- 20 mm, flush and 40 mm, non-flush mountable versions
- AC/DC, 2-wire switching output
- Connector version

Your Benefit

- All-around visible status display
- Sensor head can be aligned in 5 different positions
- Mounting base with quick clamping flange for swift mounting

Technical Data

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

General Data

Operating voltage	20 ... 250 V AC/DC
No-load supply current	≤ 0.6 mA
Reverse polarity protection	✓
Switching frequency	0 ... 30 Hz
Operating current	3 ... 300 mA
Short-circuit protection	pulsing
Operating voltage display	LED, green
Indication of the switching state	LED, red
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Housing material	metal - Zinc housing
Housing base	Metal Bracket
Protection degree	IP67

Model Number

		NBB20-L3M-US-V12	NBB20-L3M-JO-V12	NBB20-L3M-US-V93	NBB20-L3M-JO-V93	NBN40-L3M-US-V12	NBN40-L3M-US-V93
Rated operating distance	20 mm	●	●	●	●		
	40 mm					●	●
Installation	flush	●	●	●	●		
	non-flush					●	●
Switching element function	AC/DC NC		●		●		
	AC/DC NO	●		●		●	●
Connection type	Device connector 1/2"-20 UN , 3-pin	●	●			●	
	Device connector 7/8"-16 UN , 3-pin			●	●		●



Approvals and Certificates

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

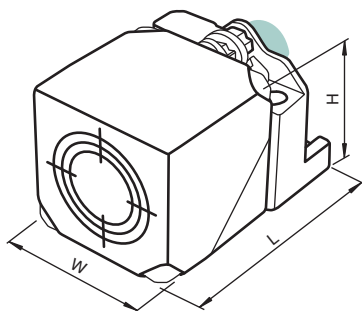
Dimensions

Length L [mm]	67	76	67	76
Width W [mm]			40	
Height H [mm]			40	

Accessories This and more accessories can be found in chapter 10

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

V93-G-YE2M-STOOW	Female connector, 7/8" - 16 UNF, 3-pin, PUR cable
V12-W-YE2M-PUR-H/S	Connecting cable, 1/2" - 20 UNF, 3-pin, irradiated PUR cable
MHW 01	Modular mounting bracket
V12-G-YE2M-PVC	Connecting cable, 1/2" - 20 UNF, 3-pin, PVC cable
V12-W-YE2M-PVC	Connecting cable, 1/2" - 20 UNF, 3-pin, PVC cable

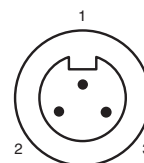
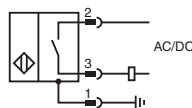
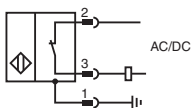


Electrical Connection



NBB20-L3M-UO-V12
NBB20-L3M-UO-V93

NBN40-L3M-US-V12
NBN40-L3M-US-V93
NBB20-L3M-US-V12
NBB20-L3M-US-V93



Wire colors

1	GN	(green)
2	BK	(black)
3	WH	(white)