



Properties

- Flat pack housing
- 50 mm, flush and non-flush mountable versions
- DC, 2-wire switching output
- Terminal compartment 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	50 mm
Operating voltage	10 ... 60 V DC
Reverse polarity protection	✓
Switching frequency	0 ... 80 Hz
Operating current	2 ... 200 mA
Lowest operating current	2 mA
Short-circuit protection	pulsing
Indication of the switching state	LED, yellow
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)

Model Number

		NCB50-FP-Z2-P1	NCN50-FP-Z2-P1	NCN50-FP-Z2-P4	NCB50-FP-Z4-V1	NCB50-FP-Z5-V1
Installation	flush	●			●	●
	non-flush		●	●		
Switching element function	DC NO/NC	●	●	●		
	DC NO				●	
	DC NC					●
Housing material	PBT housing / PBT base	●	●		●	●
	PBT housing / metal base			●		
Protection class	II	●				
Protection degree	IP67		●	●		
	IP68	●			●	●
Connection type	Device connector M12 x 1, 4-pin				●	●
	screw terminals	●	●	●		



Approvals and Certificates

		NCB50-FP-Z2-P1	NCN50-FP-Z2-P1	NCN50-FP-Z2-P4	NCB50-FP-Z4-V1	NCB50-FP-Z5-V1
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

	NCB50-FP-Z2-P1	NCN50-FP-Z2-P1	NCN50-FP-Z2-P4	NCB50-FP-Z4-V1	NCB50-FP-Z5-V1
Length L [mm]	84	80	84	84	84
Width W [mm]	84	80	84	84	84
Height H [mm]			40		
Cap length l ₁ [mm]			0		
Connector area l _c [mm]	9 (M20 x 1,5)	11 (M20 x 1,5)			25

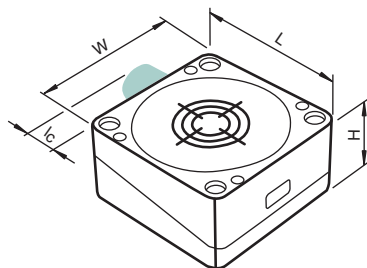
Accessories

This and more accessories can be found in chapter 10

See pages from 972 ... for cordsets

See pages 1068 ... for mounting aids

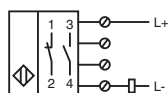
- V1-G-BK 4-pin, M12 female field-attachable connector
- V1-W-BK 4-pin, M12 female field-attachable connector
- V1-G-2M-PUR Cable socket, M12, 4-pin, PUR cable
- V1-W-2M-PUR Cable socket, M12, 4-pin, PUR cable



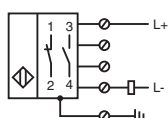
Electrical Connection



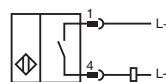
NCB50-FP-Z2-P1
NCN50-FP-Z2-P1



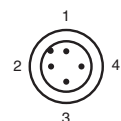
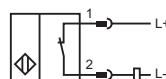
NCN50-FP-Z2-P4



NCB50-FP-Z4-V1



NCB50-FP-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".

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1
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Proximity Sensors, Inductive Sensors, rectangular types



Properties

- Flat pack housing
- 40 mm and 50 mm, flush mountable
- DC, 3-wire and 4-wire switching output versions
- Terminal compartment 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	50 mm
Installation	flush
Operating voltage	10 ... 60 V DC
No-load supply current	≤ 20 mA
Reverse polarity protection	✓
Switching frequency	0 ... 80 Hz
Operating current	0 ... 200 mA
Short-circuit protection	pulsing
Operating voltage display	LED, green
Indication of the switching state	LED, yellow
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Protection degree	IP68

Model Number

Rated operating distance	40 mm	50 mm							
Switching element function	PNP	NO/NC	PNP NO						
Housing material	PBT housing / PBT base	PBT housing / metal base							
Connection type	Device connector M12 x 1 , 4-pin	screw terminals							

Approvals and Certificates

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

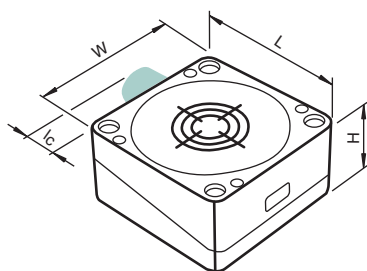
Dimensions

Length L [mm]	84	84	80	84	84	84	80	84
Width W [mm]	84	84	80	84	84	84	80	84
Height H [mm]	40							
Cap length l ₁ [mm]	0							
Connector area l _c [mm]	a)	10 (1/2" NPT)	c	a	c	c	a	b
	b)	25						
	c)	9 (M20 x 1.5)						

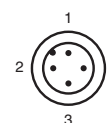
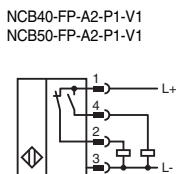
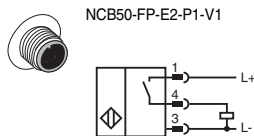
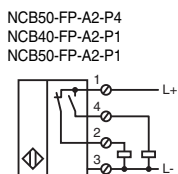
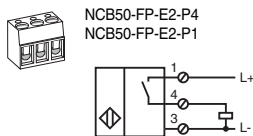
Accessories This and more accessories can be found in chapter 10

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

- V1-G-BK** 4-pin, M12 female field-attachable connector
- V1-W-2M-PUR** Cable socket, M12, 4-pin, PUR cable
- V1-G-2M-PUR** Cable socket, M12, 4-pin, PUR cable
- V1-W-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

Rated operating distance	50 mm
Installation	non-flush
Switching element function	PNP NO/NC
Operating voltage	10 ... 60 V
No-load supply current	≤ 20 mA
Reverse polarity protection	✓
Switching frequency	0 ... 80 Hz
Operating current	0 ... 200 mA
Short-circuit protection	pulsing
Operating voltage display	LED, green
Indication of the switching state	LED, yellow
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Housing material	PBT housing / PBT base
Protection degree	IP68

Properties

- Flat pack housing
- 50 mm, non-flush mountable
- DC, 4-wire switching output
- Terminal compartment and connector versions

Model Number

		NCN50-FP-A2-P1	NCN50-FP-A2-P1-V1
Connection type	Device connector M12 x 1, 4-pin screw terminals		

Approvals and Certificates

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

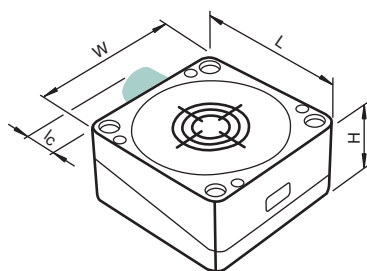
Dimensions

Length L [mm]	80	
Width W [mm]	80	
Height H [mm]	40	
Cap length l ₁ [mm]	0	
Connector area l _c [mm]	11 (M20 x 1.5)	27

Accessories

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

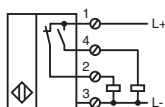
V1-G-BK	4-pin, M12 female field-attachable connector
V1-W-BK	4-pin, M12 female field-attachable connector
V1-W-2M-PUR	Cable socket, M12, 4-pin, PUR cable
V1-G-2M-PUR	Cable socket, M12, 4-pin, PUR cable



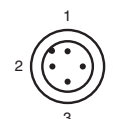
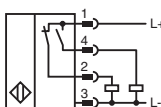
Electrical Connection



NCN50-FP-A2-P1



NCN50-FP-A2-P1-V1



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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Proximity Sensors, Inductive Sensors, rectangular types



Properties

- Flat pack housing
- 40 mm, flush mountable
- AC, 2-wire switching output
- Terminal compartment

Technical Data

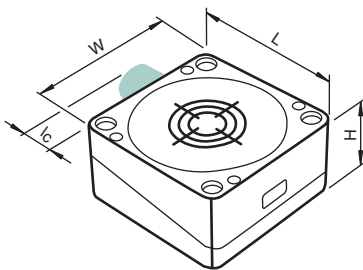
For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Rated operating distance	40 mm
Installation	flush
Switching element function	AC NO/NC
Operating voltage	20 ... 253 V
Switching frequency	0 ... 20 Hz
Operating current	5 ... 500 mA
Operating voltage display	LED, green
Indication of the switching state	LED, yellow
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Protection degree	IP68
Connection type	screw terminals



Model Number	NCB40-FP-W-P1	NCB40-FP-W-P2	NCB40-FP-W-P4
Housing material	● green = preferred type PBT housing / PBT base	● PBT housing / PBT base	● PBT housing / metal base
Approvals and Certificates			
UL approval	● cULus Listed, General Purpose	● cULus Listed, General Purpose	● cULus Listed, General Purpose
CSA approval	● cCSAus Listed, General Purpose	● cCSAus Listed, General Purpose	● cCSAus Listed, General Purpose
CCC approval	● Certified by China Compulsory Certification (CCC)		
Dimensions			
Length L [mm]	80		
Width W [mm]	80		
Height H [mm]	40		
Cap length l ₁ [mm]	0		
Connector area l _c [mm]	11 (M20 x 1.5)	11 (1/2" NPT)	

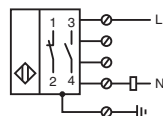
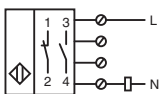


Electrical Connection



NCB40-FP-W-P1
NCB40-FP-W-P2

NCB40-FP-W-P4





Properties

- Flat pack housing
- 40 mm and 50 mm, non-flush mountable versions
- AC, 2-wire switching output
- Terminal compartment

Technical Data

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

General Data

Installation	non-flush
Switching element function	AC NO/NC
Operating voltage	20 ... 253 V AC
Switching frequency	0 ... 20 Hz
Operating current	5 ... 500 mA
Operating voltage display	LED, green
Indication of the switching state	LED, yellow
Protection degree	IP68
Connection type	screw terminals



Model Number

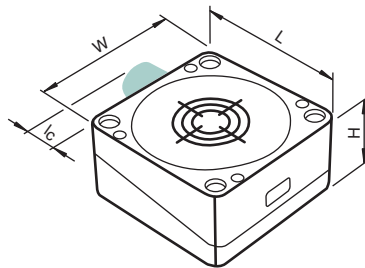
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Rated operating distance	green = preferred type 40 mm 50 mm	●	●	●	●	●
Ambient temperature	-25 ... 100 °C (-13 ... 212 °F) -25 ... 70 °C (-13 ... 158 °F)	●	●	●	●	●
Housing material	PBT housing / PBT base PBT housing / metal base	●	●	●	●	●

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]		80			
Width W [mm]		80			
Height H [mm]		40			
Cap length l ₁ [mm]		0			
Connector area l _c [mm]	a) 11 (1/2" NPT) b) 11 (M20 x 1.5)	b	a	b	a

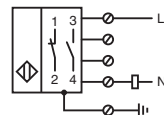
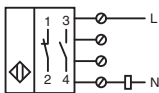


Electrical Connection



NCN40-FP-W-T-P1
NCN50-FP-W-P2
NCN50-FP-W-P1

NCN50-FP-W-P4
NCN40-FP-W-T-P4



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Properties

- Flat pack housing
- 40 mm, non-flush mountable
- DC, 3-wire analog output
- Terminal compartment and connector versions

Technical Data

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

General Data

Installation	non-flush
Measurement range	15 ... 40 mm
Switching element function	Analog current output 0 ... 20 mA
Operating voltage	15 ... 30 V DC
No-load supply current	≤ 8 mA
Repeat accuracy	0 ... 6 μm
Output type	0 ... 20 mA
Linearity error	≤ ± 10 % of full-scale value
Load resistor	≤ 500 Ω
Adjustment tolerance zero point	≤ ± 10 % of full-scale value
Ambient temperature	-10 ... 70 °C (14 ... 158 °F)
Housing material	PBT housing / PBT base
Protection degree	IP67

Model Number

Connection type	green = preferred type			
	Device connector M12 x 1 , 4-pin screw terminals	●	●	●

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]	80
Width W [mm]	80
Height H [mm]	40
Cap length l ₁ [mm]	0
Connector area l _c [mm]	11 (M20 x 1,5)

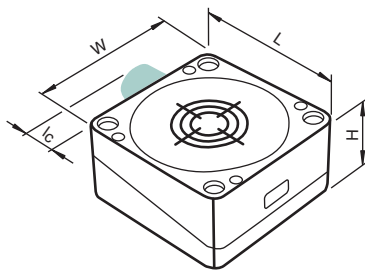
Accessories

This and more accessories can be found in chapter 10

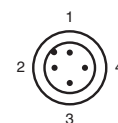
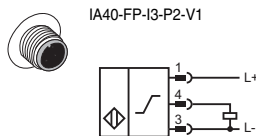
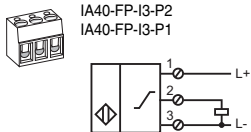
See pages from 972 ... for cordsets

See pages 1068 ... for mounting aids

V1-G-2M-PVC	Cable socket, M12, 4-pin, PVC cable
DA5-IU-C	Digital display unit
V1-W-2M-PVC	Cable socket, M12, 4-pin, PVC cable



Electrical Connection



Wire colors in accordance with EN 60947-5-2

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