

# Proximity Sensors

## The Best Sensor Solution, Directly from the Inventor

As the inventor of the proximity sensor, Pepperl+Fuchs has continued to further develop and perfect its noncontact, wear-free technology. Having the most experience in the market and a complete portfolio of inductive, capacitive, and magnetic sensors always enables the best sensor solution for every application.

### Highest Commitment to Quality

Reliability, process safety, and the highest quality standards—this is what proximity sensors from Pepperl+Fuchs stand for. As a pioneer in sensor technology, our key objective is to offer our customers the highest standard of quality on the market. Using test criteria far beyond the normative requirements, Pepperl+Fuchs sets standards in terms of performance and durability.

### Expert Advice Since 1959

Having invented the proximity sensor in 1959, Pepperl+Fuchs has the most extensive experience on the market. Creating solutions for countless applications and developing a worldwide sales network means our customers benefit from practical consulting expertise combined with the greatest technical expertise. Based on this experience, our focus is constantly on the future. Continuous technological advancement makes sure Pepperl+Fuchs always offers products that are perfectly tailored to the requirements of your applications.

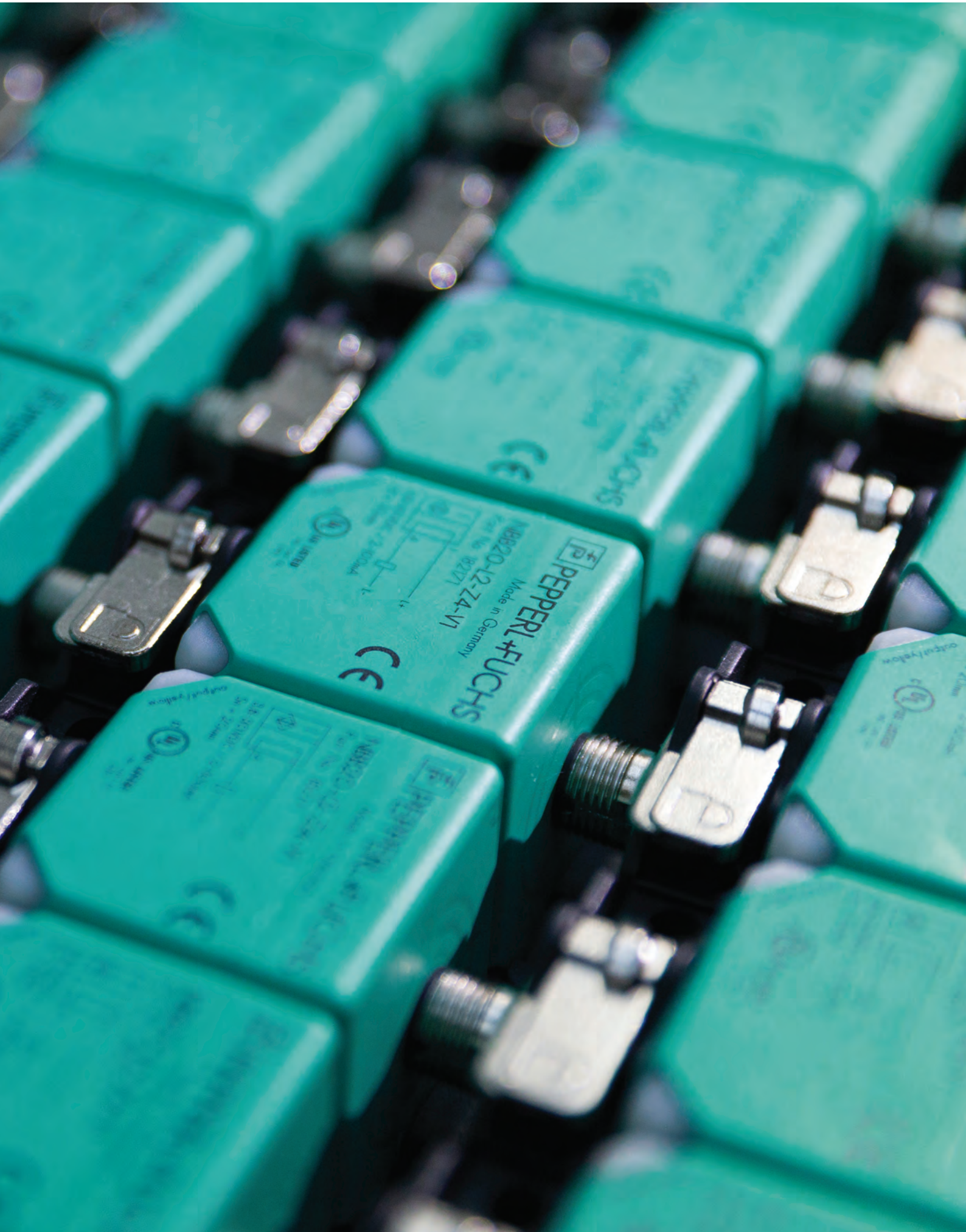
### Offering the Optimal Solution Through Customization

Our offering is rounded off by the option to customize your solution: If your perfect sensor is not included in our comprehensive portfolio, our experts will work with you to develop the optimal configuration to suit your needs. This means that Pepperl+Fuchs will always offer the best sensor solution for each and every application.



More information is available at:  
[www.pepperl-fuchs.com/fa-proximity](http://www.pepperl-fuchs.com/fa-proximity)

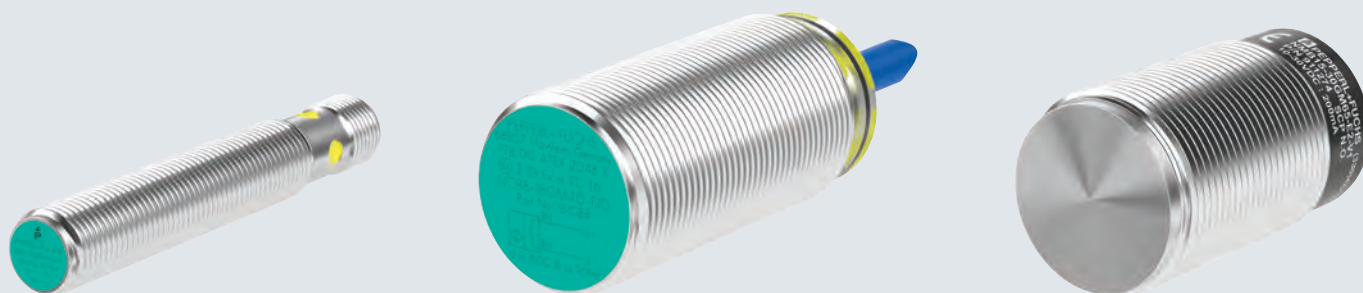




# Inductive Proximity Sensors

## Complete Portfolio and Customized Solutions

Our comprehensive portfolio of inductive proximity sensors is just as diverse as our customers' applications, offering endless possibilities. Worldwide approvals, various technologies, a wide range of designs, materials, and output signals—our portfolio of over 6000 sensors offers maximum flexibility when it comes to choosing the optimum sensor solution.

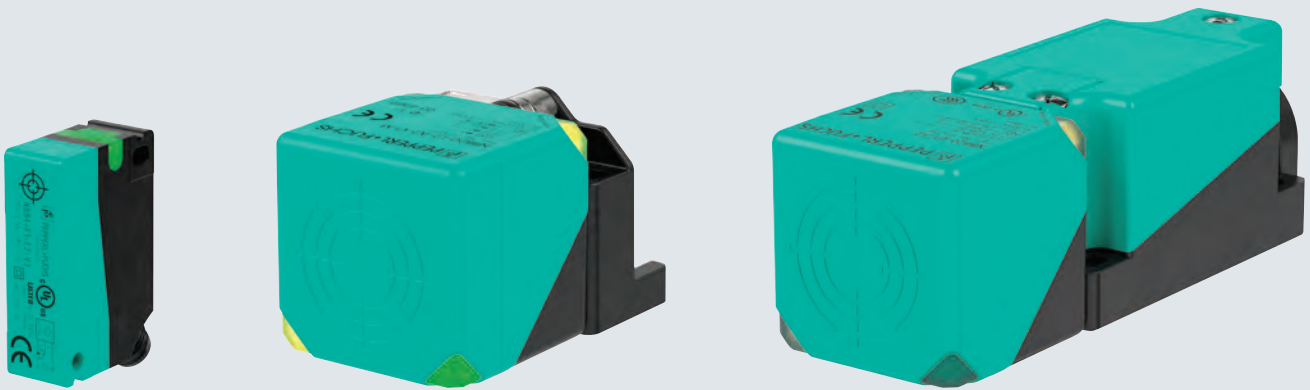


### Typical Applications

- Wear-free, noncontact detection of metallic objects at a distance of up to 100 mm
- Position detection in machine tools
- Monitoring of safe end positions, e.g. for crane applications
- Position querying for skids and thrust plates in automotive manufacturing

### Your Benefits at a Glance

- Reliability and process safety for your application thanks to the highest quality standards in sensor production
- The best sensory solution for every application, every time, thanks to our complete portfolio
- Customization beyond the standard portfolio
- Highest levels of robustness and durability even in harsh industrial environments
- Application-specific consulting at the highest technical level thanks to our extensive experience in the market, and our own developments and products

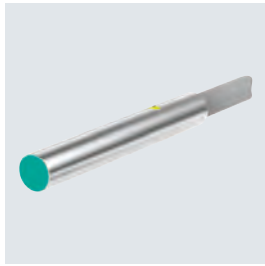


## Technical Features

- Wide variety of worldwide approvals, including country and sector-specific approvals (e.g. KOSHA, NEPSI, GL/DNV, UL, CCC, ATEX, IECEx, EAC-Ex, E1, SIL)
- Sensors for all supply voltages (DC, AC, universal current) and output signals (e.g. discrete [two, three, and four-wire], analog, IO-Link, AS-Interface, and NAMUR)
- Wide variety of designs and materials
- Complete range of cable and connector types
- Variety of specialist technologies (e.g. metal face sensors, reduction factor 1)
- Sensing ranges from up to 100 mm

# Cylindrical Inductive Proximity Sensors

## Contents



**D3 Series**  
Page 14



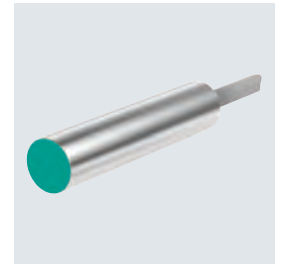
**D4/M4 Series**  
Page 15



**M5 Series**  
Page 16



**D6.5 Series –  
With Plug Connection**  
Page 17



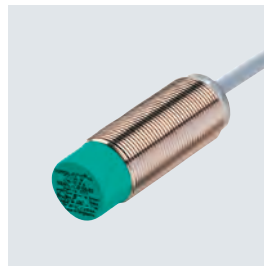
**D6.5 Series –  
With Cable  
Connection**  
Page 18



**M12 Series –  
250 V Version**  
Page 30



**M18 Series –  
With Plug Connection**  
Page 32



**M18 Series –  
With Cable  
Connection**  
Page 34



**M18 Series –  
250 V Version**  
Page 36



**M30 Series –  
With Plug Connection**  
Page 38



**M8 Series –  
With Plug Connection**  
Page 20



**M8 Series – With  
Cable Connection**  
Page 22



**M11 Series**  
Page 24



**M12 Series –  
With Plug Connection**  
Page 26



**M12 Series –  
With Cable  
Connection**  
Page 28



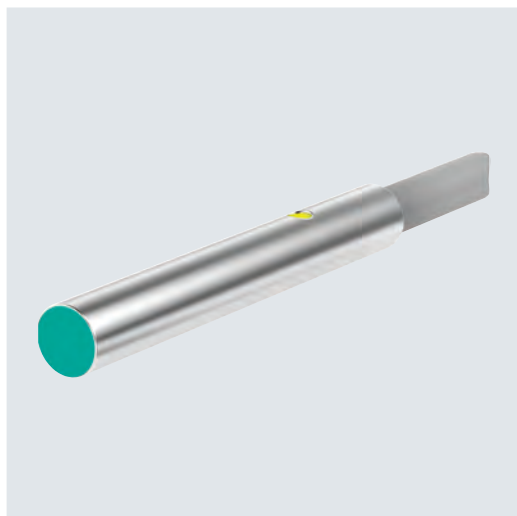
**M30 Series –  
With Cable  
Connection**  
Page 40



**M30 Series –  
250 V Version**  
Page 42



# D3 Series

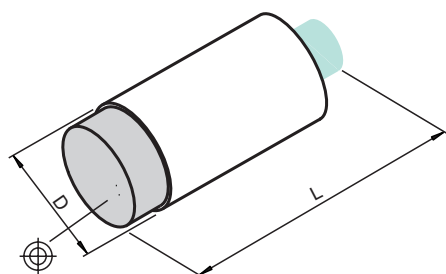


Standard Technical Data	
Type of installation	Flush
Output type	3-wire
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Housing length L	22 mm
Housing diameter D	3 mm
CSA	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Detection range [mm]	Output type	Switching function	Switching frequency [Hz]	Connection type	Cable length [mm]	Cable material
NBB0,6-3M22-E0	0.6	NPN	Normally-open (NO)	1400	Fixed cable	2000	PUR
NBB0,6-3M22-E0-0,3M-V3	0.6	NPN	Normally-open (NO)	1400	Fixed cable with M8 plug	300	PVC
NBB0,6-3M22-E1	0.6	NPN	Normally-closed (NC)	1300	Fixed cable	2000	PUR
NBB0,6-3M22-E2	0.6	PNP	Normally-open (NO)	1400	Fixed cable	2000	PVC
NBB0,6-3M22-E2-0,3M-V3	0.6	PNP	Normally-open (NO)	1400	Fixed cable with M8 plug	300	PVC
NBB0,6-3M22-E3	0.6	PNP	Normally-closed (NC)	1300	Fixed cable	2000	PUR
NBB1-3M22-E0	1	NPN	Normally-open (NO)	700	Fixed cable	2000	PVC
NBB1-3M22-E0-0,3M-V3	1	NPN	Normally-open (NO)	700	Fixed cable with M8 plug	300	PVC
NBB1-3M22-E2	1	PNP	Normally-open (NO)	700	Fixed cable	2000	PUR
NBB1-3M22-E2-0,3M-V3	1	PNP	Normally-open (NO)	700	Fixed cable with M8 plug	300	PVC

Accessories	
BF 4	Mounting adapter, 4 mm
V3-WM-2M-PUR	Single-ended female cordset, M8, 3-pin, PUR cable



# D4/M4 Series

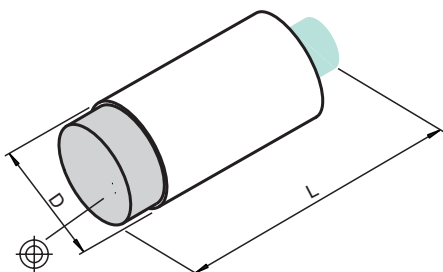


Standard Technical Data	
Type of installation	Flush
Output type	3-wire
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Housing diameter D	4 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Detection range [mm]	Output type	Switching function	Switching frequency [Hz]	Connection type	Cable length [mm]	Cable material	Length L	CSA	UL
NBB0,6-4GM22-E0	0.6	NPN	Normally-open (NO)	1400	Fixed cable	2000	PUR	22	■	■
NBB0,6-4GM22-E1	0.6	NPN	Normally-closed (NC)	1300	Fixed cable	2000	PUR	22	■	■
NBB0,6-4GM22-E2	0.6	PNP	Normally-open (NO)	1400	Fixed cable	2000	PUR	22	■	■
NBB0,6-4GM22-E2-0,3M-V3	0.6	PNP	Normally-open (NO)	1400	Fixed cable with M8 plug	300	PVC	22	■	■
NBB0,6-4GM22-E3	0.6	PNP	Normally-closed (NC)	1300	Fixed cable	2000	PUR	22	■	■
NBB0,8-4M25-E0	0.8	NPN	Normally-open (NO)	3000	Fixed cable	2000	PVC	25	■	■
NBB0,8-4M25-E0 PUR	0.8	NPN	Normally-open (NO)	3000	Fixed cable	2000	PUR	25	■	■
NBB0,8-4M25-E0-0,3M-V3	0.8	NPN	Normally-open (NO)	3000	Fixed cable with M8 plug	300	PVC	25	■	■
NBB0,8-4M25-E0-V3	0.8	NPN	Normally-open (NO)	3000	M8 connector plug			45	■	■
NBB0,8-4M25-E1	0.8	NPN	Normally-closed (NC)	3000	Fixed cable	2000	PVC	25	■	■
NBB0,8-4M25-E2	0.8	PNP	Normally-open (NO)	3000	Fixed cable	2000	PVC	25	■	■
NBB0,8-4M25-E2-0,3M-V3	0.8	PNP	Normally-open (NO)	3000	Fixed cable with M8 plug	300	PVC	25	■	■
NBB0,8-4M25-E2-V3	0.8	PNP	Normally-open (NO)	3000	M8 connector plug			45	■	■
NBB0,8-4M25-E3	0.8	PNP	Normally-closed (NC)	3000	Fixed cable	2000	PVC	25	■	■
NBB0,8-4S25-E2-0,2M-V3	0.8	PNP	Normally-open (NO)	5000	Fixed cable with M8 plug	200	PVC	25		
NBB1-4GM22-E0	1	NPN	Normally-open (NO)	700	Fixed cable	2000	PUR	22	■	■
NBB1-4GM22-E0-0,3M-V3	1	NPN	Normally-open (NO)	700	Fixed cable with M8 plug	300	PVC	22	■	■
NBB1-4GM22-E2	1	PNP	Normally-open (NO)	700	Fixed cable	2000	PUR	22	■	■
NBB1-4GM22-E2-0,3M-V3	1	PNP	Normally-open (NO)	700	Fixed cable with M8 plug	300	PVC	22	■	■
NBB1,5-4M25-E0-V3	1.5	NPN	Normally-open (NO)	3000	M8 connector plug			38	■	■

Accessories	
BF 4	Mounting adapter, 4 mm
V3-WM-2M-PUR	Single-ended female cordset, M8, 3-pin, PUR cable





## M5 Series

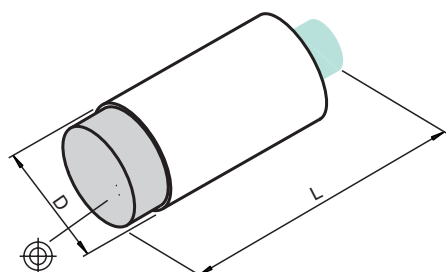


### Standard Technical Data

Type of installation	Flush
Output type	3-wire
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Housing diameter D	5 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Detection range [mm]	Output type	Switching function	Switching frequency [Hz]	Connection type	Cable length [mm]	Cable material	Length L	CSA	EAC	UL
NBB0,8-5GM25-E2	0.8	PNP	Normally-open (NO)	3000	Fixed cable	2000	PVC	25	■	■	■
NBB0,6-5GS20-E2	0.6	PNP	Normally-open (NO)	5000	Fixed cable	140	PUR	25			
NBB0,8-5GM25-E0	0.8	NPN	Normally-open (NO)	3000	Fixed cable	2000	PVC	25	■		■
NBB0,8-5GM25-E0-0,3M-V3	0.8	NPN	Normally-open (NO)	3000	Fixed cable with M8 plug	300	PVC	25	■		■
NBB0,8-5GM25-E0-V3	0.8	NPN	Normally-open (NO)	3000	M8 connector plug			45	■		■
NBB0,8-5GM25-E1	0.8	NPN	Normally-closed (NC)	3000	Fixed cable	2000	PVC	25	■		■
NBB0,8-5GM25-E1-V3	0.8	NPN	Normally-closed (NC)	3000	M8 connector plug			45	■		■
NBB0,8-5GM25-E2-0,3M-V3	0.8	PNP	Normally-open (NO)	3000	Fixed cable with M8 plug	300	PVC	25	■		■
NBB0,8-5GM25-E2-V3	0.8	PNP	Normally-open (NO)	3000	M8 connector plug			45	■		■
NBB0,8-5GM25-E3	0.8	PNP	Normally-closed (NC)	3000	Fixed cable	2000	PVC	25	■		■
NBB1,5-5GM25-E2	1.5	PNP	Normally-open (NO)	3000	Fixed cable	2000	PVC	25	■		■
NBB1,5-5GM25-E2-V3	1.5	PNP	Normally-open (NO)	3000	M8 connector plug			38	■		■
NBB1,5-5GM25-E3-V3	1.5	PNP	Normally-closed (NC)	3000	M8 connector plug			38	■		■



### Accessories

BF 5	Mounting adapter, 5 mm
V3-WM-2M-PUR	Single-ended female cordset, M8, 3-pin, PUR cable

## D6.5 Series – With Plug Connection



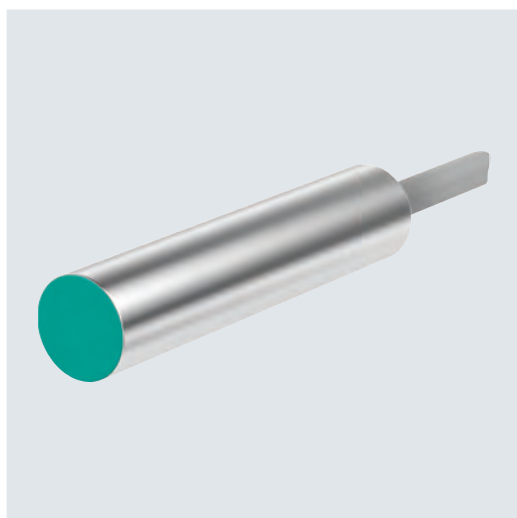
### Standard Technical Data

<b>Special features</b>	Extended temperature range
<b>Output type</b>	3-wire
<b>Voltage type</b>	DC
<b>Operating voltage (min)</b>	5 V
<b>Operating voltage (max)</b>	30 V
<b>Housing diameter D</b>	6.5 mm
<b>UL</b>	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Switching function	Switching frequency [Hz]	Connection type	Cable length [mm]	Cable material	Length L
NBB2-6,5M25-E0-V3	Flush	2	NPN	Normally-open (NO)	6000	M8 connector plug			35
NBB2-6,5M25-E1-V3	Flush	2	NPN	Normally-closed (NC)	6000	M8 connector plug			35
NBB2-6,5M25-E2-V3	Flush	2	PNP	Normally-open (NO)	6000	M8 connector plug			35
NBB2-6,5M25-E3-V3	Flush	2	PNP	Normally-closed (NC)	6000	M8 connector plug			35
NBB2-6,5M30-E0-0,15M-PUR-V3	Flush	2	NPN	Normally-open (NO)	6000	Fixed cable with M8 plug	150	PUR	30
NBB2-6,5M30-E2-0,15M-PUR-V3	Flush	2	PNP	Normally-open (NO)	6000	Fixed cable with M8 plug	150	PUR	30
NBB2-6,5S16-E2-0,3M-V3	Flush	2	PNP	Normally-open (NO)	6000	Fixed cable with M8 plug	300	PVC	16
NBB2-6,5S20-E2-V3	Flush	2	PNP	Normally-open (NO)	6000	M8 connector plug			30
NBB2-6,5S20-E3-V3	Flush	2	PNP	Normally-closed (NC)	6000	M8 connector plug			30
NBB2-6,5S35-E0-V3	Flush	2	NPN	Normally-open (NO)	6000	M8 connector plug			45
NBB2-6,5S35-E1-V3	Flush	2	NPN	Normally-closed (NC)	6000	M8 connector plug			45
NBB2-6,5S35-E2-0,3M-V3	Flush	2	PNP	Normally-open (NO)	6000	Fixed cable with M8 plug	300	PVC	35
NBB2-6,5S35-E2-V3	Flush	2	PNP	Normally-open (NO)	6000	M8 connector plug			45
NBB2-6,5S35-E3-V3	Flush	2	PNP	Normally-closed (NC)	6000	M8 connector plug			45
NBN3-6,5M25-E0-V3	Non-flush	3	NPN	Normally-open (NO)	4500	M8 connector plug			35
NBN3-6,5M25-E1-V3	Non-flush	3	NPN	Normally-closed (NC)	4500	M8 connector plug			35
NBN3-6,5M25-E2-V3	Non-flush	3	PNP	Normally-open (NO)	4500	M8 connector plug			35
NBN3-6,5M30-E0-0,3M-V3	Non-flush	3	NPN	Normally-open (NO)	4500	Fixed cable with M8 plug	300	PVC	30
NEB3-6,5M40-E0-V1	Semi-flush	3	NPN	Normally-open (NO)	3500	M12 connector plug			65
NEB3-6,5M40-E1-V1	Semi-flush	3	NPN	Normally-closed (NC)	3500	M12 connector plug			65
NEB3-6,5M40-E2-V1	Semi-flush	3	PNP	Normally-open (NO)	3500	M12 connector plug			65
NEB3-6,5M40-E3-V1	Semi-flush	3	PNP	Normally-closed (NC)	3500	M12 connector plug			65
NEB3-6,5M45-E0-V3	Semi-flush	3	NPN	Normally-open (NO)	3500	M8 connector plug			55
NEB3-6,5M45-E1-V3	Semi-flush	3	NPN	Normally-closed (NC)	3500	M8 connector plug			55
NEB3-6,5M45-E2-V3	Semi-flush	3	PNP	Normally-open (NO)	3500	M8 connector plug			55
NEB3-6,5M45-E3-V3	Semi-flush	3	PNP	Normally-closed (NC)	3500	M8 connector plug			55
NEN6-6,5M40-E0-V1	Non-flush	6	NPN	Normally-open (NO)	1500	M12 connector plug			65
NEN6-6,5M40-E1-V1	Non-flush	6	NPN	Normally-closed (NC)	1500	M12 connector plug			65
NEN6-6,5M40-E2-V1	Non-flush	6	PNP	Normally-open (NO)	1500	M12 connector plug			65
NEN6-6,5M40-E3-V1	Non-flush	6	PNP	Normally-closed (NC)	1500	M12 connector plug			65
NEN6-6,5M45-E0-V3	Non-flush	6	NPN	Normally-open (NO)	1500	M8 connector plug			55
NEN6-6,5M45-E1-V3	Non-flush	6	NPN	Normally-closed (NC)	1500	M8 connector plug			55
NEN6-6,5M45-E2-V3	Non-flush	6	PNP	Normally-open (NO)	1500	M8 connector plug			55
NEN6-6,5M45-E3-V3	Non-flush	6	PNP	Normally-closed (NC)	1500	M8 connector plug			55

## D6.5 Series – With Cable Connection



### Standard Technical Data

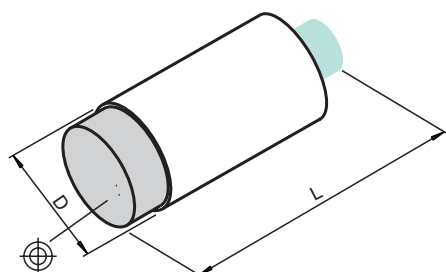
<b>Special features</b>	Extended temperature range
<b>Output type</b>	3-wire
<b>Voltage type</b>	DC
<b>Operating voltage (min)</b>	5 V
<b>Operating voltage (max)</b>	30 V
<b>Connection type</b>	Fixed cable
<b>Housing diameter D</b>	6.5 mm
<b>UL</b>	■

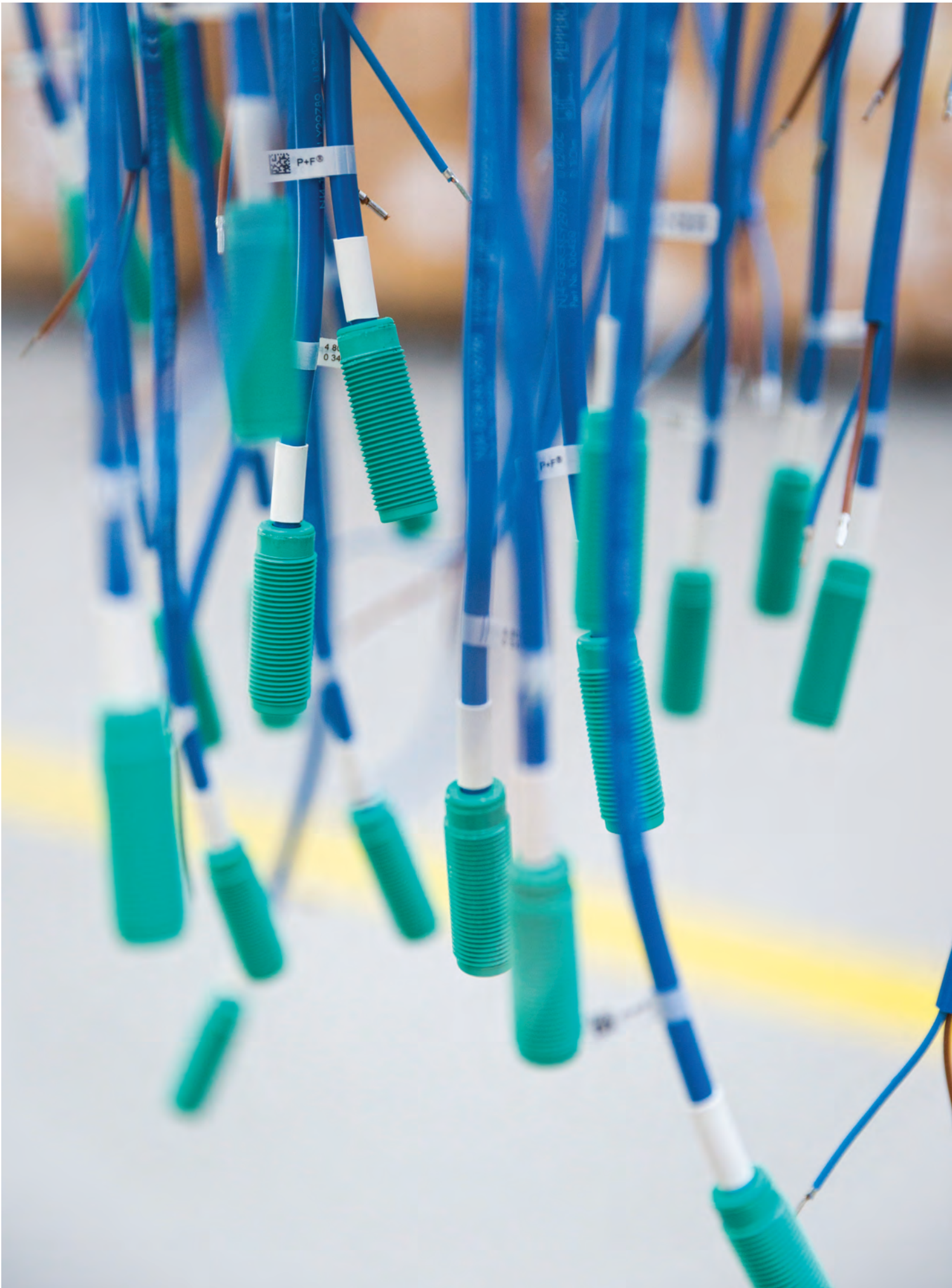
For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Switching function	Switching frequency [Hz]	Cable length [mm]	Cable material	Length L
NBB2-6,5M30-E0	Flush	2	NPN	Normally-open (NO)	6000	2000	PVC	30
NBB2-6,5M30-E2	Flush	2	PNP	Normally-open (NO)	6000	2000	PVC	30
NBB2-6,5M30M-E2-5M	Flush	2	PNP	Normally-open (NO)	6000	5000	PVC	30
NBB2-6,5S16-E0	Flush	2	NPN	Normally-open (NO)	6000	2000	PVC	16
NBB2-6,5S16-E2	Flush	2	PNP	Normally-open (NO)	6000	2000	PVC	16
NBB2-6,5S16-E3	Flush	2	PNP	Normally-closed (NC)	6000	2000	PVC	16
NBB2-6,5S35-E0-PUR	Flush	2	NPN	Normally-open (NO)	6000	2000	PUR	35
NBB2-6,5S35-E2-PUR	Flush	2	PNP	Normally-open (NO)	6000	2000	PUR	35
NBB2-6,5S40-E0-PUR	Flush	2	NPN	Normally-open (NO)	6000	2000	PUR	40
NBB2-6,5S40-E2-5M-PUR	Flush	2	PNP	Normally-open (NO)	6000	5000	PUR	40
NBB2-6,5S40-E2-PUR	Flush	2	PNP	Normally-open (NO)	6000	2000	PUR	40
NBB2-6,5S40-E3-PUR	Flush	2	PNP	Normally-closed (NC)	6000	2000	PUR	40
NBB2-6,5S50-E0-PUR	Flush	2	NPN	Normally-open (NO)	6000	2000	PUR	50
NBB2-6,5S50-E2-PUR	Flush	2	PNP	Normally-open (NO)	6000	2000	PUR	50
NBN3-6,5M30-E0	Non-flush	3	NPN	Normally-open (NO)	4500	2000	PVC	30
NBN3-6,5M30-E2	Non-flush	3	PNP	Normally-open (NO)	4500	2000	PVC	30
NBN3-6,5S40-E0-PUR	Non-flush	3	NPN	Normally-open (NO)	4500	2000	PUR	40
NBN3-6,5S40-E2-PUR	Non-flush	3	PNP	Normally-open (NO)	4500	2000	PUR	40
NEB3-6,5M40-E0-PUR	Semi-flush	3	NPN	Normally-open (NO)	3500	2000	PUR	40
NEB3-6,5M40-E1-PUR	Semi-flush	3	NPN	Normally-closed (NC)	3500	2000	PUR	40
NEB3-6,5M40-E2-PUR	Semi-flush	3	PNP	Normally-open (NO)	3500	2000	PUR	40
NEB3-6,5M40-E3-PUR	Semi-flush	3	PNP	Normally-closed (NC)	3500	2000	PUR	40
NEN6-6,5M40-E0-PUR	Non-flush	6	NPN	Normally-open (NO)	1500	2000	PUR	40
NEN6-6,5M40-E1-PUR	Non-flush	6	NPN	Normally-closed (NC)	1500	2000	PUR	40
NEN6-6,5M40-E2-PUR	Non-flush	6	PNP	Normally-open (NO)	1500	2000	PUR	40
NEN6-6,5M40-E3-PUR	Non-flush	6	PNP	Normally-closed (NC)	1500	2000	PUR	40

### Accessories

<b>BF 6.5</b>	Mounting adapter, 6.5 mm
---------------	--------------------------





# M8 Series – With Plug Connection



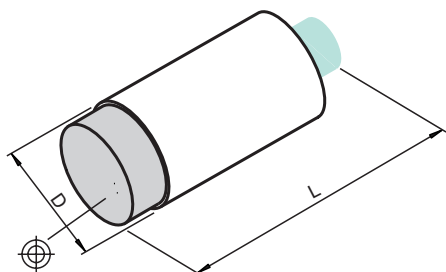
## Standard Technical Data

Voltage type	DC
Housing diameter D	8 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Cable length [mm]	Length L	CCC	CSA	UL
NCB1,5-8GM50-Z0-V3	Flush	1.5	2-wire	2-wire	Normally-open (NO)	1200	5	60	M8 connector plug		50	■	■	■
NCB1,5-8GM50-Z1-V3	Flush	1.5	2-wire	2-wire	Normally-closed (NC)	1200	5	60	M8 connector plug		50	■	■	■
NBB1,5-8GM50-Z3-V3	Flush	1.5	2-wire	2-wire	Normally-open (NO)	1200	5	60	M8 connector plug		48	■	■	■
NBB2-8GH20-E0-V3	Flush	2	3-wire	NPN	Normally-open (NO)	1500	10	30	M8 connector plug		30	■	■	■
NBB2-8GH20-E2-V3	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	30	M8 connector plug		30	■	■	■
NBB2-8GH25-E0-V3	Flush	2	3-wire	NPN	Normally-open (NO)	1500	10	30	M8 connector plug		35	■	■	■
NBB2-8GH25-E2-V3	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	30	M8 connector plug		35	■	■	■
NBB2-8GH40-E0-V3	Flush	2	3-wire	NPN	Normally-open (NO)	1500	10	30	M8 connector plug		50	■	■	■
NBB2-8GH40-E2-V3	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	30	M8 connector plug		50	■	■	■
NBB2-8GM25-E0-V3	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	M8 connector plug		40	■	■	■
NBB2-8GM25-E1-V3	Flush	2	3-wire	NPN	Normally-closed (NC)	6000	5	30	M8 connector plug		40	■	■	■
NBB2-8GM25-E2-V3	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	M8 connector plug		40	■	■	■
NBB2-8GM25-E3-V3	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	M8 connector plug		40	■	■	■
NBB2-8GM30-A0-V1	Flush	2	4-wire	NPN	Complementary	6000	5	30	M12 connector plug		55	■	■	■
NBB2-8GM30-A2-V1	Flush	2	4-wire	PNP	Complementary	6000	5	30	M12 connector plug		55	■	■	■
NBB2-8GM30-E0-V1	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	M12 connector plug		55	■	■	■
NBB2-8GM30-E2-0,2M-V3	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	Fixed cable with M8 plug	200	30	■	■	■
NBB2-8GM30-E2-0,3M-V3	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	Fixed cable with M8 plug	300	30	■	■	■
NBB2-8GM30-E2-0,5M-PUR-V1	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	Fixed cable with M12 plug	500	30	■	■	■
NBB2-8GM30-E2-0,5M-V1	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	Fixed cable with M12 plug	500	30	■	■	■
NBB2-8GM30-E2-V1	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	M12 connector plug		55	■	■	■
NBB2-8GM40-A0-V1	Flush	2	4-wire	NPN	Complementary	6000	5	30	M12 connector plug		65	■	■	■
NBB2-8GM40-A2-V1	Flush	2	4-wire	PNP	Complementary	6000	5	30	M12 connector plug		65	■	■	■
NBB2-8GM40-E0-V1	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	M12 connector plug		65	■	■	■
NBB2-8GM40-E0-V3	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	M8 connector plug		55	■	■	■
NBB2-8GM40-E2-0,2M-V1	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	Fixed cable with M12 plug	200	40	■	■	■
NBB2-8GM40-E2-0,3M-V3	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	Fixed cable with M8 plug	300	40	■	■	■
NBB2-8GM40-E2-V1	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	M12 connector plug		65	■	■	■
NBB2-8GM40-E2-V3	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	M8 connector plug		55	■	■	■
NBB2-8GM40-E3-V1	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	M12 connector plug		65	■	■	■
NBB2-8GM40-E3-V3	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	M8 connector plug		55	■	■	■
NBB2-8GS35-E0-V1	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	M12 connector plug		60	■	■	■
NBB2-8GS35-E1-V3	Flush	2	3-wire	NPN	Normally-closed (NC)	6000	5	30	M8 connector plug		50	■	■	■
NBB2-8GS35-E2-V1	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	M12 connector plug		60	■	■	■
NBB2-8GS35-E2-V3	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	M8 connector plug		50	■	■	■
NBB2-8GS35-E3-V1	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	M12 connector plug		60	■	■	■
NBB2-8GS35-E3-V3	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	M8 connector plug		50	■	■	■
NBB2-8GS40-E2-V1	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	M12 connector plug		65	■	■	■

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Cable length [mm]	Length L	CCC	CSA	UL
NBB2-8GS40-E2-V3	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	M8 connector plug		55			■
NBB2-8GS40-E3-V1	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	M12 connector plug		65			■
NCN2-8GM50-Z0-V3	Non-flush	2	2-wire	2-wire	Normally-open (NO)	1200	5	60	M8 connector plug		40	■	■	■
NCN2-8GM50-Z1-V3	Non-flush	2	2-wire	2-wire	Normally-closed (NC)	1200	5	60	M8 connector plug		40	■	■	■
NXB2-8GM25-E2-V3	Flush	2	3-wire	PNP	Normally-open (NO)	1000	10	30	M8 connector plug		40			
NEB3-8GM40-E0-V1	Flush	3	3-wire	NPN	Normally-open (NO)	3500	5	30	M12 connector plug		65			■
NEB3-8GM40-E0-V3	Flush	3	3-wire	NPN	Normally-open (NO)	3500	5	30	M8 connector plug		55			■
NEB3-8GM40-E1-V1	Flush	3	3-wire	NPN	Normally-closed (NC)	3500	5	30	M12 connector plug		65			■
NEB3-8GM40-E1-V3	Flush	3	3-wire	NPN	Normally-closed (NC)	3500	5	30	M8 connector plug		55			■
NEB3-8GM40-E2-V1	Flush	3	3-wire	PNP	Normally-open (NO)	3500	5	30	M12 connector plug		65			■
NEB3-8GM40-E2-V3	Flush	3	3-wire	PNP	Normally-open (NO)	3500	5	30	M8 connector plug		55			■
NEB3-8GM40-E3-V1	Flush	3	3-wire	PNP	Normally-closed (NC)	3500	5	30	M12 connector plug		65			■
NEB3-8GM40-E3-V3	Flush	3	3-wire	PNP	Normally-closed (NC)	3500	5	30	M8 connector plug		55			■
NEB4-8GM50-E2-V3	Semi-flush	4	3-wire	PNP	Normally-open (NO)	500	10	30	M8 connector plug		45.5		■	■
NBN2-8GM50-Z1-V3	Non-flush	2	2-wire	2-wire	Normally-closed (NC)	1200	5	60	M8 connector plug		48	■	■	■
NBN2-8GM50-Z3-V3	Non-flush	2	2-wire	2-wire	Normally-open (NO)	1200	5	60	M8 connector plug		48	■	■	■
NBN3-8GM25-E0-V3	Non-flush	3	3-wire	NPN	Normally-open (NO)	4500	5	30	M8 connector plug		40			■
NBN3-8GM25-E1-V3	Non-flush	3	3-wire	NPN	Normally-closed (NC)	4500	5	30	M8 connector plug		40			■
NBN3-8GM25-E2-V3	Non-flush	3	3-wire	PNP	Normally-open (NO)	4500	5	30	M8 connector plug		40			■
NBN3-8GM25-E3-V3	Non-flush	3	3-wire	PNP	Normally-closed (NC)	4500	5	30	M8 connector plug		40			■
NBN3-8GM30-E0-V1	Non-flush	3	3-wire	NPN	Normally-open (NO)	4500	5	30	M12 connector plug		55			■
NBN3-8GM30-E2-V1	Non-flush	3	3-wire	PNP	Normally-open (NO)	4500	5	30	M12 connector plug		55			■
NBN3-8GM40-A0-V1	Non-flush	3	4-wire	NPN	Complementary	4500	5	30	M12 connector plug		65			■
NBN3-8GM40-A2-V1	Non-flush	3	4-wire	PNP	Complementary	4500	5	30	M12 connector plug		65			■
NBN3-8GM40-E0-V1	Non-flush	3	3-wire	NPN	Normally-open (NO)	4500	5	30	M12 connector plug		65			■
NBN3-8GM40-E2-V1	Non-flush	3	3-wire	PNP	Normally-open (NO)	4500	5	30	M12 connector plug		65			■
NBN3-8GM40-E2-V3	Non-flush	3	3-wire	PNP	Normally-open (NO)	4500	5	30	M8 connector plug		55			■
NBN3-8GS35-E0-V3	Non-flush	3	3-wire	NPN	Normally-open (NO)	4500	5	30	M8 connector plug		50			■
NBN3-8GS35-E1-V3	Non-flush	3	3-wire	NPN	Normally-closed (NC)	4500	5	30	M8 connector plug		50			■
NBN3-8GS35-E2-V1	Non-flush	3	3-wire	PNP	Normally-open (NO)	4500	5	30	M12 connector plug		60			■
NBN3-8GS35-E2-V3	Non-flush	3	3-wire	PNP	Normally-open (NO)	4500	5	30	M8 connector plug		50			■
NBN3-8GS35-E3-V3	Non-flush	3	3-wire	PNP	Normally-closed (NC)	4500	5	30	M8 connector plug		50			■
NXN3-8GM25-E2-V3	Non-flush	3	3-wire	PNP	Normally-open (NO)	1000	10	30	M8 connector plug		40			
NEN6-8GM40-E0-V1	Non-flush	6	3-wire	NPN	Normally-open (NO)	1500	5	30	M12 connector plug		65			■
NEN6-8GM40-E0-V3	Non-flush	6	3-wire	NPN	Normally-open (NO)	1500	5	30	M8 connector plug		55			■
NEN6-8GM40-E1-V1	Non-flush	6	3-wire	NPN	Normally-closed (NC)	1500	5	30	M12 connector plug		65			■
NEN6-8GM40-E1-V3	Non-flush	6	3-wire	NPN	Normally-closed (NC)	1500	5	30	M8 connector plug		55			■
NEN6-8GM40-E2-V1	Non-flush	6	3-wire	PNP	Normally-open (NO)	1500	5	30	M12 connector plug		65			■
NEN6-8GM40-E2-V3	Non-flush	6	3-wire	PNP	Normally-open (NO)	1500	5	30	M8 connector plug		55			■
NEN6-8GM40-E3-V1	Non-flush	6	3-wire	PNP	Normally-closed (NC)	1500	5	30	M12 connector plug		65			■
NEN6-8GM40-E3-V3	Non-flush	6	3-wire	PNP	Normally-closed (NC)	1500	5	30	M8 connector plug		55			■



Accessories	
<b>BF 8</b>	Mounting adapter, 8 mm
<b>EXG-08</b>	Quick-mounting bracket with fixed stop
<b>V1-G-2M-PUR</b>	Single-ended female cordset, M12, 4-pin, PUR cable
<b>V1-W-2M-PUR</b>	Single-ended female cordset, M12, 4-pin, PUR cable
<b>V3-WM-2M-PUR</b>	Single-ended female cordset, M8, 3-pin, PUR cable
<b>V3-WMV4A-5M-PUR</b>	Single-ended female cordset, M8, stainless steel V4A, 3-pin, PUR cable

## M8 Series – With Cable Connection



### Standard Technical Data

<b>Voltage type</b>	DC
<b>Connection type</b>	Fixed cable
<b>Housing diameter D</b>	8 mm

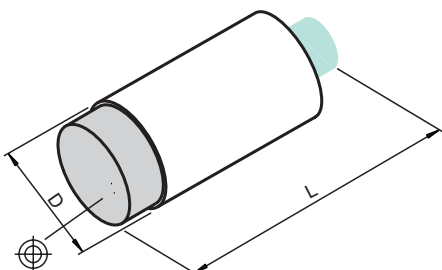
For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Cable length [mm]	Cable material	Length L	CCC	CSA	UL
NBB1,5-8GM40-Z0	Flush	1.5	2-wire	2-wire	Normally-open (NO)	1200	5	60	2000	PVC	40	■	■	■
NBB1,5-8GM40-Z1	Flush	1.5	2-wire	2-wire	Normally-closed (NC)	1200	5	60	2000	PVC	40	■	■	■
NCB1,5-8GM40-Z0	Flush	1.5	2-wire	2-wire	Normally-open (NO)	1200	5	60	2000	PUR	40	■	■	■
NCB1,5-8GM40-Z1	Flush	1.5	2-wire	2-wire	Normally-closed (NC)	1200	5	60	2000	PUR	40	■	■	■
NBB2-8GM30-E0	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	2000	PVC	30			■
NBB2-8GM30-E0-5M-PUR	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	5000	PUR	30			■
NBB2-8GM30-E2	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	2000	PVC	30			■
NBB2-8GM30-E2-10M	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	10000	PVC	30			■
NBB2-8GM30-E2-5M	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	5000	PVC	30			■
NBB2-8GM30-E2-5M-PUR	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	5000	PUR	30			■
NBB2-8GM30-E3	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	2000	PVC	30			■
NBB2-8GM30-E3-10M	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	10000	PVC	30			■
NBB2-8GM30-E3-5M	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	5000	PVC	30			■
NBB2-8GM35-E2-3M-PUR	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	3000	PUR	35			■
NBB2-8GM40-E2	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	2000	PVC	40			■
NBB2-8GM40-E3	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	2000	PVC	40			■
NBB2-8GM50-A0	Flush	2	3-wire	NPN	Complementary	6000	5	30	2000	PVC	50			■
NBB2-8GM50-A2	Flush	2	3-wire	PNP	Complementary	6000	5	30	2000	PVC	50			■
NBB2-8GM50-A2-5M	Flush	2	3-wire	PNP	Complementary	6000	5	30	5000	PVC	50			■
NBB2-8GM50-E0	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	2000	PVC	50			■
NBB2-8GM50-E0-5M	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	5000	PVC	50			■
NBB2-8GM50-E2	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	2000	PVC	50			■
NBB2-8GM50-E2-3M	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	3000	PVC	50			■
NBB2-8GM50-E2-5M	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	5000	PVC	50			■
NBB2-8GM50-E2-PUR	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	2000	PUR	50			■
NBB2-8GS16-E0	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	2000	PVC	16			■
NBB2-8GS16-E2	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	2000	PVC	16			■
NBB2-8GS16-E2-3M-PUR	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	3000	PUR	16			■
NBB2-8GS16-E3	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	2000	PVC	16			■
NBB2-8GS30-E3-3M-PUR	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	3000	PUR	30			■
NBB2-8GS35-E0-PUR	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	2000	PUR	35			■
NBB2-8GS35-E1-PUR	Flush	2	3-wire	NPN	Normally-closed (NC)	6000	5	30	2000	PUR	35			■
NBB2-8GS35-E2-5M-PUR	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	5000	PUR	35			■
NBB2-8GS35-E2-PUR	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	2000	PUR	35			■
NBB2-8GS35-E3-8M-PUR	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	8000	PUR	35			■
NBB2-8GS35-E3-PUR	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	2000	PUR	35			■
NBB2-8GS40-E0-5M-PUR	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	5000	PUR	40			■
NBB2-8GS40-E0-PUR	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	2000	PUR	40			■

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Cable length [mm]	Cable material	Length L	CCC	CSA	UL
NBB2-8GS40-E2-5M-PUR	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	5000	PUR	40			■
NBB2-8GS40-E2-PUR	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	2000	PUR	40			■
NBB2-8GS40-E3-10M-PUR	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	10000	PUR	40			■
NBB2-8GS40-E3-PUR	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	2000	PUR	40			■
NBB2-8GS50-E0-PUR	Flush	2	3-wire	NPN	Normally-open (NO)	6000	5	30	2000	PUR	50			■
NBB2-8GS50-E2	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	2000	PVC	50			■
NBB2-8GS50-E2-0,6M-PUR	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	600	PUR	50			■
NBB2-8GS50-E2-3,5M-PUR	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	5000	PUR	50			■
NBB2-8GS50-E2-5M-PUR	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	5000	PUR	50			■
NBB2-8GS50-E2-PUR	Flush	2	3-wire	PNP	Normally-open (NO)	6000	5	30	2000	PUR	50			■
NBB2-8GS50-E3-PUR	Flush	2	3-wire	PNP	Normally-closed (NC)	6000	5	30	2000	PUR	50			■
NXB2-8GM30-E2	Flush	2	3-wire	PNP	Normally-open (NO)	1000	10	30	2000	PVC	30			
NEB3-8GM40-E0-PUR	Flush	3	3-wire	NPN	Normally-open (NO)	3500	5	30	2000	PUR	40			■
NEB3-8GM40-E1-PUR	Flush	3	3-wire	NPN	Normally-closed (NC)	3500	5	30	2000	PUR	40			■
NEB3-8GM40-E2-PUR	Flush	3	3-wire	PNP	Normally-open (NO)	3500	5	30	2000	PUR	40			■
NEB3-8GM40-E3-PUR	Flush	3	3-wire	PNP	Normally-closed (NC)	3500	5	30	2000	PUR	40			■
NEB4-8GM45-E2	Semi-flush	4	3-wire	PNP	Normally-open (NO)	500	10	30	2000	PUR	45		■	■
NCN2-8GM40-Z0	Non-flush	2	2-wire	2-wire	Normally-open (NO)	1200	5	60	2000	PUR	40	■	■	■
NCN2-8GM40-Z1	Non-flush	2	2-wire	2-wire	Normally-closed (NC)	1200	5	60	2000	PUR	40	■	■	■
NBN2-8GM40-Z1	Non-flush	2	2-wire	2-wire	Normally-closed (NC)	1200	5	60	2000	PVC	40	■	■	■
NBN3-8GM30-E0	Non-flush	3	3-wire	NPN	Normally-open (NO)	4500	5	30	2000	PVC	30			■
NBN3-8GM30-E2	Non-flush	3	3-wire	PNP	Normally-open (NO)	4500	5	30	2000	PVC	30			■
NBN3-8GM30-E2-5M	Non-flush	3	3-wire	PNP	Normally-open (NO)	4500	5	30	5000	PVC	30			■
NBN3-8GM30-E3	Non-flush	3	3-wire	PNP	Normally-closed (NC)	4500	5	30	2000	PVC	30			■
NBN3-8GM50-A0	Non-flush	3	3-wire	NPN	Complementary	4500	5	30	2000	PVC	50			■
NBN3-8GM50-A2	Non-flush	3	3-wire	PNP	Complementary	4500	5	30	2000	PVC	50			■
NBN3-8GM50-E0	Non-flush	3	3-wire	NPN	Normally-open (NO)	4500	5	30	2000	PVC	50			■
NBN3-8GM50-E2	Non-flush	3	3-wire	PNP	Normally-open (NO)	4500	5	30	2000	PVC	50			■
NBN3-8GS35-E1-PUR	Non-flush	3	3-wire	NPN	Normally-closed (NC)	4500	5	30	2000	PUR	35			■
NBN3-8GS35-E2-5M-PUR	Non-flush	3	3-wire	PNP	Normally-open (NO)	4500	5	30	5000	PUR	35			■
NBN3-8GS40-E0-PUR	Non-flush	3	3-wire	NPN	Normally-open (NO)	4500	5	30	2000	PUR	40			■
NBN3-8GS40-E2-10M-PUR	Non-flush	3	3-wire	PNP	Normally-open (NO)	4500	5	30	10000	PUR	40			■
NBN3-8GS40-E2-PUR	Non-flush	3	3-wire	PNP	Normally-open (NO)	4500	5	30	2000	PUR	40			■
NBN3-8GS40-E3-PUR	Non-flush	3	3-wire	PNP	Normally-closed (NC)	4500	5	30	2000	PUR	40			■
NXN3-8GM30-E2	Non-flush	3	3-wire	PNP	Normally-open (NO)	1000	10	30	2000	PVC	30			
NEN6-8GM40-E0-PUR	Non-flush	6	3-wire	NPN	Normally-open (NO)	1500	5	30	2000	PUR	40			■
NEN6-8GM40-E1-PUR	Non-flush	6	3-wire	NPN	Normally-closed (NC)	1500	5	30	2000	PUR	40			■
NEN6-8GM40-E2-PUR	Non-flush	6	3-wire	PNP	Normally-open (NO)	1500	5	30	2000	PUR	40			■
NEN6-8GM40-E3-PUR	Non-flush	6	3-wire	PNP	Normally-closed (NC)	1500	5	30	2000	PUR	40			■

#### Accessories

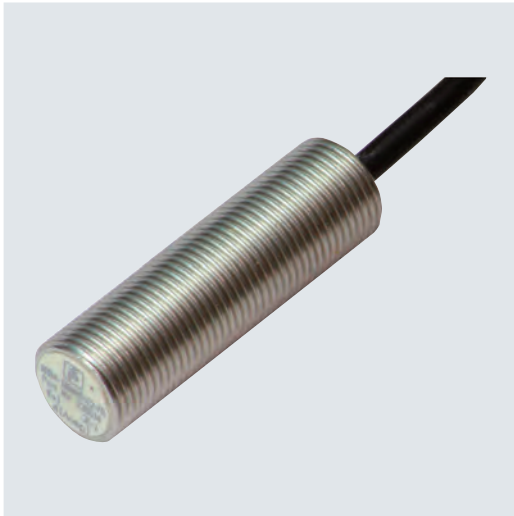
<b>BF 8</b>	Mounting adapter, 8 mm
<b>EXG-08</b>	Quick-mounting bracket with fixed stop







# M11 Series

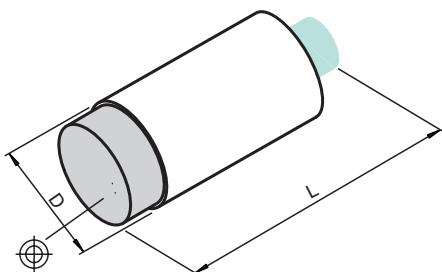


Standard Technical Data	
Output type	2-wire
Output type	NAMUR
Switching function	Normally-closed (NC)
Voltage type	DC
Switching frequency	3000 Hz
Operating voltage (min)	8.2 V
Operating voltage (max)	8.2 V
Connection type	Fixed cable
Cable material	PVC
ATEX	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	SIL	Cable length [mm]	Length L	Diameter D	EAC	FM
NJ2-11-N	Flush	2	2	2000	31	11	■	■
NJ2-11-N-G	Flush	2	2	2000	30	14	■	■
NJ2-11-N-G-5M	Flush	2	2	5000	30	14	■	■
NJ2-11-N-G-10M	Flush	2		10000	30	14	■	
NJ5-11-N-G	Non-flush	5	2	2000	31	14	■	
NJ5-11-N-G-5M	Non-flush	5	2	5000	31	14	■	
NJ5-11-N-G-10M	Non-flush	5	2	10000	31	14	■	
NJ5-11-N-G-6M	Non-flush	5	2	6000	31	14	■	

Accessories	
BF 11	Mounting adapter, 11 mm





# M12 Series – With Plug Connection



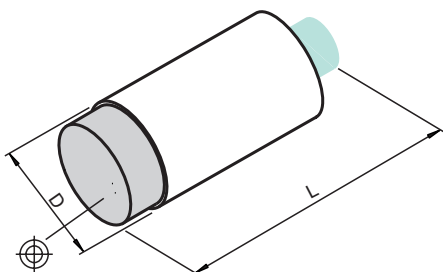
## Standard Technical Data

Voltage type	DC
Housing diameter D	12 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	CCC	CSA	EAC	UL
NBB2-12GM30-E2-V1	Flush	2	3-wire	PNP	Normally-open (NO)	800	10	30	M12 connector plug	45	■	■	■	■
NBB2-12GM40-E0-V1	Flush	2	3-wire	NPN	Normally-open (NO)	1000	10	30	M12 connector plug	50	■	■	■	■
NBB2-12GM40-E2-V1	Flush	2	3-wire	PNP	Normally-open (NO)	1000	10	30	M12 connector plug	50	■	■	■	■
NBB2-12GM40-Z0-V1	Flush	2	2-wire	2-wire	Normally-open (NO)	1000	5	60	M12 connector plug	40	■	■	■	■
NBB2-12GM40-Z3-V1	Flush	2	2-wire	2-wire	Normally-open (NO)	1000	5	60	M12 connector plug	40	■	■	■	■
NBB2-12GM50-A2-V1	Flush	2	4-wire	PNP	Complementary	1000	10	30	M12 connector plug	50	■	■	■	■
NBB2-12GM50-E0-V1	Flush	2	3-wire	NPN	Normally-open (NO)	1500	10	30	M12 connector plug	50	■	■	■	■
NBB2-12GM50-E1-V1	Flush	2	3-wire	NPN	Normally-closed (NC)	1500	10	30	M12 connector plug	50	■	■	■	■
NBB2-12GM50-E2-V1	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	30	M12 connector plug	50	■	■	■	■
NBB2-12GM50-E3-V1	Flush	2	3-wire	PNP	Normally-closed (NC)	1500	10	30	M12 connector plug	50	■	■	■	■
NBB2-12GM60-A0-V1	Flush	2	4-wire	NPN	Complementary	1000	10	30	M12 connector plug	70	■	■	■	■
NBB2-12GM60-A2-V1	Flush	2	4-wire	PNP	Complementary	1000	10	30	M12 connector plug	70	■	■	■	■
NBB2-12GM60-E2-V1	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	30	M12 connector plug	70	■	■	■	■
NBB2-12GS40-Z4L-V1	Flush	2	2-wire		Normally-open (NO)	700	3.7	30	M12 connector plug	55				
NCB2-12GM40-Z0-V1	Flush	2	2-wire	2-wire	Normally-open (NO)	800	5	60	M12 connector plug	40	■	■	■	■
NCB2-12GM40-Z1-V1	Flush	2	2-wire	2-wire	Normally-closed (NC)	800	5	60	M12 connector plug	40	■	■	■	■
NCB2-12GM60-B3-V1	Flush	2	2-wire	AS-Interface	Normally open/close selectable	500	26.5	31.9	M12 connector plug	60	■	■	■	■
NJ2-12GM40-E-V1	Flush	2	3-wire	NPN	Normally-open (NO)	3000	10	60	M12 connector plug	50	■	■	■	■
NJ2-12GM40-E2-V1	Flush	2	3-wire	PNP	Normally-open (NO)	3000	10	60	M12 connector plug	50	■	■	■	■
NJ2-12GM40-E3-V1	Flush	2	3-wire	PNP	Normally-closed (NC)	3000	10	60	M12 connector plug	50	■	■	■	■
NBB4-12GM30-E0-V1	Flush	4	3-wire	NPN	Normally-open (NO)	500	10	30	M12 connector plug	35	■	■	■	■
NBB4-12GM30-E2-V1	Flush	4	3-wire	PNP	Normally-open (NO)	500	10	30	M12 connector plug	30	■	■	■	■
NBB4-12GM30-E2-V3	Flush	4	3-wire	PNP	Normally-open (NO)	500	10	30	M8 connector plug	30	■	■	■	■
NBB4-12GM30-E3-V1	Flush	4	3-wire	PNP	Normally-closed (NC)	500	10	30	M12 connector plug	30	■	■	■	■
NBB4-12GM35-A0-V1	Flush	4	4-wire	NPN	Complementary	2500	10	30	M12 connector plug	51				■
NBB4-12GM35-A2-V1	Flush	4	4-wire	PNP	Complementary	2500	10	30	M12 connector plug	51				■
NBB4-12GM50-A0-V1	Flush	4	4-wire	NPN	Complementary	1500	10	30	M12 connector plug	65	■	■	■	■
NBB4-12GM50-A2-V1	Flush	4	4-wire	PNP	Complementary	1500	10	30	M12 connector plug	65	■	■	■	■
NBB4-12GM50-E0-V1	Flush	4	3-wire	NPN	Normally-open (NO)	800	10	30	M12 connector plug	65	■	■	■	■
NBB4-12GM50-E1-V1	Flush	4	3-wire	NPN	Normally-closed (NC)	800	10	30	M12 connector plug	65	■	■	■	■
NBB4-12GM50-E2-V1	Flush	4	3-wire	PNP	Normally-open (NO)	800	10	30	M12 connector plug	50	■	■	■	■
NBB4-12GM50-E3-V1	Flush	4	3-wire	PNP	Normally-closed (NC)	800	10	30	M12 connector plug	65	■	■	■	■
NCB4-12GM40-Z4-V1	Flush	4	2-wire	2-wire	Normally-open (NO)	1000	3.5	30	M12 connector plug	35	■	■	■	■
NCB4-12GM40-Z5-V1	Flush	4	2-wire	2-wire	Normally-closed (NC)	1000	3.5	30	M12 connector plug	35	■	■	■	■
NCB4-12GM40-Z7-V1	Flush	4	2-wire	2-wire	Normally-closed (NC)	1000	3.5	30	M12 connector plug	35	■	■	■	■
NCB4-12GM50-E2-V1	Flush	4	3-wire	PNP	Normally-open (NO)	800	10	30	M12 connector plug	50	■	■	■	■
NCB4-12GM60-B3-V1	Flush	4	2-wire	AS-Interface	Normally open/close selectable	500	26.5	31.9	M12 connector plug	60	■	■	■	■
NCB4-12GM60-B3B-V1	Flush	4	2-wire	AS-Interface	Normally open/close selectable	500	26.5	31.9	M12 connector plug	60	■	■	■	■

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	CCC	CSA	EAC	UL
NEB6-12GM50-E0-V1	Semi-flush	6	3-wire	NPN	Normally-open (NO)	800	10	30	M12 connector plug	60				■ ■
NEB6-12GM50-E1-V1	Semi-flush	6	3-wire	NPN	Normally-closed (NC)	800	10	30	M12 connector plug	60				■ ■
NEB6-12GM50-E2-V1	Semi-flush	6	3-wire	PNP	Normally-open (NO)	800	10	30	M12 connector plug	60				■ ■
NEB6-12GM50-E3-V1	Semi-flush	6	3-wire	PNP	Normally-closed (NC)	800	10	30	M12 connector plug	60				■ ■
NEB8-12GM50-E2-V1	Semi-flush	8	3-wire	PNP	Normally-open (NO)	400	10	30	M12 connector plug	60				■ ■
NBN4-12GM35-A0-V1	Non-flush	4	4-wire	NPN	Complementary	800	10	30	M12 connector plug	35				■ ■
NBN4-12GM35-A2-V1	Non-flush	4	4-wire	PNP	Complementary	800	10	30	M12 connector plug	35				■ ■
NBN4-12GM40-E0-V1	Non-flush	4	3-wire	NPN	Normally-open (NO)	1200	10	30	M12 connector plug	50				■ ■
NBN4-12GM40-E2-V1	Non-flush	4	3-wire	PNP	Normally-open (NO)	1200	10	30	M12 connector plug	50				■ ■
NBN4-12GM40-Z0-V1	Non-flush	4	2-wire	2-wire	Normally-open (NO)	1000	5	60	M12 connector plug	40				■ ■
NBN4-12GM40-Z3-V1	Non-flush	4	2-wire	2-wire	Normally-open (NO)	1000	5	60	M12 connector plug	40				■ ■
NBN4-12GM50-E0-V1	Non-flush	4	3-wire	NPN	Normally-open (NO)	1200	10	30	M12 connector plug	50				■ ■
NBN4-12GM50-E1-V1	Non-flush	4	3-wire	NPN	Normally-closed (NC)	1200	10	30	M12 connector plug	50				■ ■
NBN4-12GM50-E2-V1	Non-flush	4	3-wire	PNP	Normally-open (NO)	1200	10	30	M12 connector plug	50				■ ■
NBN4-12GM50-E3-V1	Non-flush	4	3-wire	PNP	Normally-closed (NC)	1200	10	30	M12 connector plug	50				■ ■
NBN4-12GM60-A0-V1	Non-flush	4	4-wire	NPN	Complementary	1200	10	30	M12 connector plug	70				■ ■
NBN4-12GM60-A2-V1	Non-flush	4	4-wire	PNP	Complementary	1200	10	30	M12 connector plug	70				■ ■
NBN4-12GS40-Z4L-V1	Non-flush	4	2-wire	2-wire	Normally-open (NO)	700	3.7	30	M12 connector plug	55				
NCN4-12GM40-Z0-V1	Non-flush	4	2-wire	2-wire	Normally-open (NO)	800	5	60	M12 connector plug	40				■ ■
NCN4-12GM40-Z1-V1	Non-flush	4	2-wire	2-wire	Normally-closed (NC)	800	5	60	M12 connector plug	40				■ ■
NCN4-12GM60-B3-C2-V1	Non-flush	4	2-wire	AS-Interface	Normally open/close selectable	500	26.5	31.9	M12 connector plug	60				■ ■
NCN4-12GM60-B3B-C2-V1	Non-flush	4	2-wire	AS-Interface	Normally open/close selectable	500	26.5	31.9	M12 connector plug	60				■ ■
NJ4-12GM40-E-V1	Non-flush	4	3-wire	NPN	Normally-open (NO)	2000	10	60	M12 connector plug	50				■ ■
NJ4-12GM40-E2-V1	Non-flush	4	3-wire	PNP	Normally-open (NO)	2000	10	60	M12 connector plug	50				■ ■
NJ4-12GM40-E3-V1	Non-flush	4	3-wire	PNP	Normally-closed (NC)	2000	10	60	M12 connector plug	50				■ ■
NBN7-12GM35-E2-V1	Non-flush	7	3-wire	PNP	Normally-open (NO)	300	10	30	M12 connector plug	35				■ ■
NBN7-12GM35-E3-V1	Non-flush	7	3-wire	PNP	Normally-closed (NC)	300	10	30	M12 connector plug	35				■ ■
NBN8-12GM35-A0-V1	Non-flush	8	4-wire	NPN	Complementary	2000	10	30	M12 connector plug	51				■ ■
NBN8-12GM35-A2-V1	Non-flush	8	4-wire	PNP	Complementary	2000	10	30	M12 connector plug	51				■ ■
NBN8-12GM50-A0-V1	Non-flush	8	4-wire	NPN	Complementary	1500	10	30	M12 connector plug	65				■ ■
NBN8-12GM50-A2-V1	Non-flush	8	4-wire	PNP	Complementary	1500	10	30	M12 connector plug	65				■ ■
NBN8-12GM50-E0-V1	Non-flush	8	3-wire	NPN	Normally-open (NO)	1500	10	30	M12 connector plug	50				■ ■
NBN8-12GM50-E2-V1	Non-flush	8	3-wire	PNP	Normally-open (NO)	1500	10	30	M12 connector plug	50				■ ■
NCN8-12GM40-Z4-V1	Non-flush	8	2-wire	2-wire	Normally-open (NO)	750	3.5	30	M12 connector plug	35				■ ■
NCN8-12GM40-Z5-V1	Non-flush	8	2-wire	2-wire	Normally-closed (NC)	750	3.5	30	M12 connector plug	35				■ ■
NCN8-12GM40-Z7-V1	Non-flush	8	2-wire	2-wire	Normally-closed (NC)	750	3.5	30	M12 connector plug	35				■ ■
NEN10-12GM50-E0-V1	Non-flush	10	3-wire	NPN	Normally-open (NO)	600	10	30	M12 connector plug	60				■ ■
NEN10-12GM50-E1-V1	Non-flush	10	3-wire	NPN	Normally-closed (NC)	600	10	30	M12 connector plug	60				■ ■
NEN10-12GM50-E2-V1	Non-flush	10	3-wire	PNP	Normally-open (NO)	600	10	30	M12 connector plug	60				■ ■
NEN10-12GM50-E3-V1	Non-flush	10	3-wire	PNP	Normally-closed (NC)	600	10	30	M12 connector plug	60				■ ■



#### Accessories

<b>BF 12</b>	Mounting adapter, 12 mm
<b>EXG-12</b>	Quick-mounting bracket with fixed stop
<b>V1-G-2M-PUR</b>	Single-ended female cordset, M12, 4-pin, PUR cable
<b>V1-G-BK0,3M-PUR-U-V1-G</b>	Cordset, M12 to M12, PUR cable, 4-pin
<b>V1-G-BK1M-PUR-U-V1-G</b>	Cordset, M12 to M12, PUR cable, 4-pin
<b>V1-W-2M-PUR</b>	Single-ended female cordset, M12, 4-pin, PUR cable
<b>V3-WM-2M-PUR</b>	Single-ended female cordset, M8, 3-pin, PUR cable

# M12 Series – With Cable Connection



## Standard Technical Data

<b>Voltage type</b>	DC
<b>Connection type</b>	Fixed cable
<b>Housing diameter D</b>	12 mm

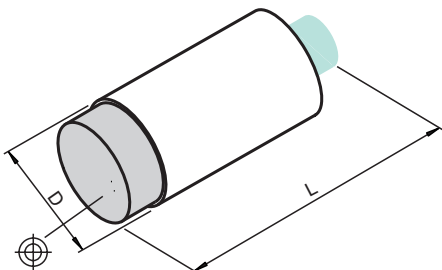
For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Cable length [mm]	Cable material	Length L	CCC	CSA	EAC	UL
NBB2-12GK50-E0	Flush	2	3-wire	NPN	Normally-open (NO)	1500	10	30	2000	PVC	50	■	■	■	■
NBB2-12GK50-E2	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	30	2000	PVC	50	■	■	■	■
NBB2-12GK50-E2-10M	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	30	10000	PVC	50	■	■	■	■
NBB2-12GK60-E2-5M PUR	Flush	2	3-wire	PNP	Normally-open (NO)	1000	10	30	5000	PUR	60	■	■	■	■
NBB2-12GM30-E2	Flush	2	3-wire	PNP	Normally-open (NO)	800	10	30	2000	PVC	30	■	■	■	■
NBB2-12GM40-E0	Flush	2	3-wire	NPN	Normally-open (NO)	1000	10	30	2000	PVC	40	■	■	■	■
NBB2-12GM40-E1	Flush	2	3-wire	NPN	Normally-closed (NC)	1000	10	30	2000	PVC	40	■	■	■	■
NBB2-12GM40-E2	Flush	2	3-wire	PNP	Normally-open (NO)	1000	10	30	2000	PVC	40	■	■	■	■
NBB2-12GM40-E3	Flush	2	3-wire	PNP	Normally-closed (NC)	1000	10	30	2000	PVC	40	■	■	■	■
NBB2-12GM40-Z0	Flush	2	2-wire	2-wire	Normally-open (NO)	1000	5	60	2000	PVC	40	■	■	■	■
NBB2-12GM50-E0	Flush	2	3-wire	NPN	Normally-open (NO)	1500	10	30	2000	PVC	50	■	■	■	■
NBB2-12GM50-E0-5M	Flush	2	3-wire	NPN	Normally-open (NO)	1500	10	30	5000	PVC	50	■	■	■	■
NBB2-12GM50-E1	Flush	2	3-wire	NPN	Normally-closed (NC)	1500	10	30	2000	PVC	50	■	■	■	■
NBB2-12GM50-E2	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	30	2000	PVC	50	■	■	■	■
NBB2-12GM50-E2-2M PUR	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	30	2000	PUR	50	■	■	■	■
NBB2-12GM50-E2-5M	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	30	5000	PVC	50	■	■	■	■
NBB2-12GM50-E3	Flush	2	3-wire	PNP	Normally-closed (NC)	1500	10	30	2000	PVC	50	■	■	■	■
NBB2-12GM60-A0	Flush	2	4-wire	NPN	Complementary	1000	10	30	2000	PVC	60	■	■	■	■
NBB2-12GM60-A2	Flush	2	4-wire	PNP	Complementary	1000	10	30	2000	PVC	60	■	■	■	■
NBB2-12GS40-Z4L	Flush	2	2-wire	2-wire	Normally-open (NO)	700	3.7	30	2000	PVC	40	■	■	■	■
NCB2-12GM40-Z0	Flush	2	2-wire	2-wire	Normally-open (NO)	800	5	60	2000	PUR	40	■	■	■	■
NCB2-12GM40-Z1	Flush	2	2-wire	2-wire	Normally-closed (NC)	800	5	60	2000	PUR	40	■	■	■	■
NJ2-12GM40-E	Flush	2	3-wire	NPN	Normally-open (NO)	3000	10	60	2000	PUR	40	■	■	■	■
NJ2-12GM40-E2	Flush	2	3-wire	PNP	Normally-open (NO)	3000	10	60	2000	PUR	40	■	■	■	■
NJ2-12GM40-E2-10M	Flush	2	3-wire	PNP	Normally-open (NO)	3000	10	60	10000	PUR	40	■	■	■	■
NJ2-12GM40-E2-5M	Flush	2	3-wire	PNP	Normally-open (NO)	3000	10	60	5000	PUR	40	■	■	■	■
NJ2-12GM40-E3	Flush	2	3-wire	PNP	Normally-closed (NC)	3000	10	60	2000	PUR	40	■	■	■	■
NCB4-12GM35-Z4	Flush	4	2-wire	2-wire	Normally-open (NO)	1000	3.5	30	2000	PVC	35	■	■	■	■
NCB4-12GM35-Z5	Flush	4	2-wire	2-wire	Normally-closed (NC)	1000	3.5	30	2000	PVC	35	■	■	■	■
NBB4-12GM30-E0	Flush	4	3-wire	NPN	Normally-open (NO)	500	10	30	2000	PUR	35	■	■	■	■
NBB4-12GM30-E2	Flush	4	3-wire	PNP	Normally-open (NO)	500	10	30	2000	PVC	30	■	■	■	■
NBB4-12GM30-E2-5M	Flush	4	3-wire	PNP	Normally-open (NO)	500	10	30	5000	PVC	30	■	■	■	■
NBB4-12GM30-E3	Flush	4	3-wire	PNP	Normally-closed (NC)	500	10	30	2000	PVC	30	■	■	■	■
NBB4-12GM35-A0	Flush	4	4-wire	NPN	Complementary	2500	10	30	2000	PVC	35	■	■	■	■
NBB4-12GM35-A2	Flush	4	4-wire	PNP	Complementary	2500	10	30	2000	PVC	35	■	■	■	■
NBB4-12GM40-E0	Flush	4	3-wire	NPN	Normally-open (NO)	800	10	30	2000	PVC	40	■	■	■	■
NBB4-12GM50-A0	Flush	4	4-wire	NPN	Complementary	1500	10	30	2000	PVC	50	■	■	■	■
NBB4-12GM50-A2	Flush	4	4-wire	PNP	Complementary	1500	10	30	2000	PVC	50	■	■	■	■

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Cable length [mm]	Cable material	Length L	CCC	CSA	EAC	UL
NBB4-12GM50-E0	Flush	4	3-wire	NPN	Normally-open (NO)	800	10	30	2000	PVC	50				
NBB4-12GM50-E1	Flush	4	3-wire	NPN	Normally-closed (NC)	800	10	30	2000	PVC	50				
NBB4-12GM50-E3	Flush	4	3-wire	PNP	Normally-closed (NC)	800	10	30	2000	PVC	50				
NEB6-12GM50-E0	Semi-flush	6	3-wire	NPN	Normally-open (NO)	800	10	30	2000	PUR	50				
NEB6-12GM50-E1	Semi-flush	6	3-wire	NPN	Normally-closed (NC)	800	10	30	2000	PUR	50				
NEB6-12GM50-E2	Semi-flush	6	3-wire	PNP	Normally-open (NO)	800	10	30	2000	PUR	50				
NEB6-12GM50-E3	Semi-flush	6	3-wire	PNP	Normally-closed (NC)	800	10	30	2000	PUR	50				
NBN4-12GK50-E0	Non-flush	4	3-wire	NPN	Normally-open (NO)	1200	10	30	2000	PVC	50				
NBN4-12GK50-E2	Non-flush	4	3-wire	PNP	Normally-open (NO)	1200	10	30	2000	PVC	50				
NBN4-12GM40-E0	Non-flush	4	3-wire	NPN	Normally-open (NO)	800	10	30	2000	PVC	40				
NBN4-12GM40-E2	Non-flush	4	3-wire	PNP	Normally-open (NO)	800	10	30	2000	PVC	40				
NBN4-12GM40-Z0	Non-flush	4	2-wire	2-wire	Normally-open (NO)	700	5	60	2000	PVC	40				
NBN4-12GM50-E0	Non-flush	4	3-wire	NPN	Normally-open (NO)	1200	10	30	2000	PVC	50				
NBN4-12GM50-E1	Non-flush	4	3-wire	NPN	Normally-closed (NC)	1200	10	30	2000	PVC	50				
NBN4-12GM50-E2	Non-flush	4	3-wire	PNP	Normally-open (NO)	1200	10	30	2000	PVC	50				
NBN4-12GM50-E2-5M	Non-flush	4	3-wire	PNP	Normally-open (NO)	1200	10	30	5000	PVC	50				
NBN4-12GM50-E3	Non-flush	4	3-wire	PNP	Normally-closed (NC)	1200	10	30	2000	PVC	50				
NBN4-12GM60-A0	Non-flush	4	4-wire	NPN	Complementary	1000	10	30	2000	PVC	60				
NBN4-12GM60-A2	Non-flush	4	4-wire	PNP	Complementary	1000	10	30	2000	PVC	60				
NBN4-12GS40-Z4L	Non-flush	4	2-wire	2-wire	Normally-open (NO)	700	3.7	30	2000	PVC	40				
NCN4-12GM40-Z0	Non-flush	4	2-wire	2-wire	Normally-open (NO)	800	5	60	2000	PUR	40				
NCN4-12GM40-Z0-10M	Non-flush	4	2-wire	2-wire	Normally-open (NO)	800	5	60	10000	PUR	40				
NCN4-12GM40-Z1	Non-flush	4	2-wire	2-wire	Normally-closed (NC)	800	5	60	2000	PUR	40				
NJ4-12GM40-E	Non-flush	4	3-wire	NPN	Normally-open (NO)	2000	10	60	2000	PUR	40				
NJ4-12GM40-E2	Non-flush	4	3-wire	PNP	Normally-open (NO)	2000	10	60	2000	PUR	40				
NJ4-12GM40-E2-10M	Non-flush	4	3-wire	PNP	Normally-open (NO)	2000	10	60	10000	PUR	40				
NJ4-12GM40-E2-5M	Non-flush	4	3-wire	PNP	Normally-open (NO)	2000	10	60	5000	PUR	40				
NJ4-12GM40-E3	Non-flush	4	3-wire	PNP	Normally-closed (NC)	2000	10	60	2000	PUR	40				
NBN7-12GM35-E2	Non-flush	7	3-wire	PNP	Normally-open (NO)	300	10	30	2000	PVC	35				
NBN8-12GM35-A0	Non-flush	8	4-wire	NPN	Complementary	2000	10	30	2000	PVC	35				
NBN8-12GM35-A2	Non-flush	8	4-wire	PNP	Complementary	2000	10	30	2000	PVC	35				
NBN8-12GM50-A0	Non-flush	8	4-wire	NPN	Complementary	1500	10	30	2000	PVC	50				
NBN8-12GM50-A2	Non-flush	8	4-wire	PNP	Complementary	1500	10	30	2000	PVC	50				
NBN8-12GM50-E0	Non-flush	8	3-wire	NPN	Normally-open (NO)	1500	10	30	2000	PVC	50				
NBN8-12GM50-E2	Non-flush	8	3-wire	PNP	Normally-open (NO)	1500	10	30	2000	PVC	50				
NCN8-12GM35-Z4	Non-flush	8	2-wire	2-wire	Normally-open (NO)	750	3.5	30	2000	PVC	35				
NCN8-12GM35-Z5	Non-flush	8	2-wire	2-wire	Normally-closed (NC)	750	3.5	30	2000	PVC	35				
NEN10-12GM50-E0	Non-flush	10	3-wire	NPN	Normally-open (NO)	600	10	30	2000	PUR	50				
NEN10-12GM50-E1	Non-flush	10	3-wire	NPN	Normally-closed (NC)	600	10	30	2000	PUR	50				
NEN10-12GM50-E2	Non-flush	10	3-wire	PNP	Normally-open (NO)	600	10	30	2000	PUR	50				
NEN10-12GM50-E3	Non-flush	10	3-wire	PNP	Normally-closed (NC)	600	10	30	2000	PUR	50				

### Accessories

<b>BF 12</b>	Mounting adapter, 12 mm
<b>EXG-12</b>	Quick-mounting bracket with fixed stop



# M12 Series – 250 V Version



## Standard Technical Data

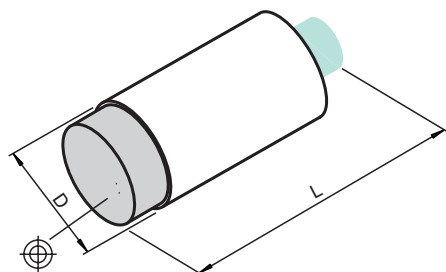
Output type	2-wire
Output type	2-wire
Operating voltage (min)	20 V
Housing diameter D	12 mm
CCC	■
CSA	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Switching function	Voltage type	Switching frequency [Hz]	UB (max)	Connection type	Cable length [mm]	Cable material	Length L
NBB4-12GM65-US-V11B	Flush	4	Normally-open (NO)	AC/DC	30	300	M12 connector plug			82
NBB4-12GM65-US-V12	Flush	4	Normally-open (NO)	AC/DC	30	300	1/2 inch connector plug			82
NBN8-12GM65-US-V12	Non-flush	8	Normally-open (NO)	AC/DC	30	300	1/2 inch connector plug			82
NBN8-12GM75-US	Non-flush	8	Normally-open (NO)	AC/DC	30	300	Fixed cable	2000	PUR	75
NJ2-12GM50-WO	Flush	2	Normally-closed (NC)	AC	20	253	Fixed cable	2000	PVC	50
NJ2-12GM50-WO-V13	Flush	2	Normally-closed (NC)	AC	20	253	M12 connector plug			60
NJ2-12GM50-WS	Flush	2	Normally-open (NO)	AC	20	253	Fixed cable	2000	PVC	50
NJ2-12GM50-WS-5M	Flush	2	Normally-open (NO)	AC	20	253	Fixed cable	5000	PVC	50
NJ2-12GM50-WS-V11	Flush	2	Normally-open (NO)	AC	20	253	M12 connector plug			50
NJ2-12GM50-WS-V12	Flush	2	Normally-open (NO)	AC	20	253	1/2 inch connector plug			50
NJ2-12GM50-WS-V13	Flush	2	Normally-open (NO)	AC	20	253	M12 connector plug			60
NJ4-12GM50-WO	Non-flush	4	Normally-closed (NC)	AC	20	253	Fixed cable	2000	PVC	50
NJ4-12GM50-WO-V13	Non-flush	4	Normally-closed (NC)	AC	20	253	M12 connector plug			60
NJ4-12GM50-WS	Non-flush	4	Normally-open (NO)	AC	20	253	Fixed cable	2000	PVC	50
NJ4-12GM50-WS-10M	Non-flush	4	Normally-open (NO)	AC	20	253	Fixed cable	10000	PVC	50
NJ4-12GM50-WS-V11	Non-flush	4	Normally-open (NO)	AC	20	253	M12 connector plug			50
NJ4-12GM50-WS-V12	Non-flush	4	Normally-open (NO)	AC	20	253	1/2 inch connector plug			50
NJ4-12GM50-WS-V13	Non-flush	4	Normally-open (NO)	AC	20	253	M12 connector plug			60

## Accessories

BF 12	Mounting adapter, 12 mm
EXG-12	Quick-mounting bracket with fixed stop
V11-G-2M-PUR	Single-ended female cordset, M12, 3-pin, PUR cable
V12-G-YE2M-PVC	Cordset, 1/2"-20 UNF, 3-pin, PVC cable
V13-G-5M-PUR	Single-ended female cordset, M12, 3-pin, PUR cable







# M18 Series – With Plug Connection



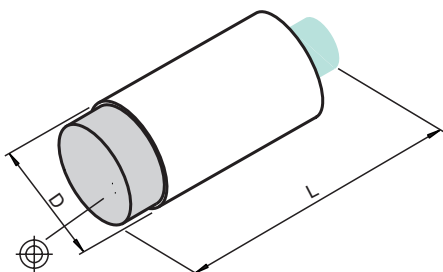
## Standard Technical Data

<b>Voltage type</b>	DC
<b>Connection type</b>	M12 connector plug
<b>Housing diameter D</b>	18 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Length L	CCC	CSA	EAC	UL
NBB5-18GM20-E2-V1	Flush	5	3-wire	PNP	Normally-open (NO)	1000	10	30	20	■			■
NBB5-18GH40-E2-V1	Flush	5	3-wire	PNP	Normally-open (NO)	1000	10	30	39				
NBB5-18GM40-E2-V1	Flush	5	3-wire	PNP	Normally-open (NO)	1000	10	30	39	■			■
NBB5-18GM40-Z0-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	500	5	60	40	■	■		■
NBB5-18GM40-Z3-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	500	5	60	40	■	■		■
NBB5-18GM50-E0-V1	Flush	5	3-wire	NPN	Normally-open (NO)	800	10	30	50		■		■
NBB5-18GM50-E2-V1	Flush	5	3-wire	PNP	Normally-open (NO)	800	10	30	50		■	■	■
NBB5-18GM50-E3-V1	Flush	5	3-wire	PNP	Normally-closed (NC)	800	10	30	50				■
NBB5-18GM60-A0-V1	Flush	5	4-wire	NPN	Complementary	800	10	30	60		■		■
NBB5-18GM60-A2-V1	Flush	5	4-wire	PNP	Complementary	800	10	30	60		■		■
NBB5-18GM60-I-V1	Flush	5	3-wire	Analog current output	4 mA ... 20 mA		10	30	75				■
NBB5-18GM60-I3-V1	Flush	5	3-wire	Analog current output	0 mA ... 20 mA		10	30	75				■
NBB5-18GM70-E2-V1	Flush	5	3-wire	PNP	Normally-open (NO)	800	10	30	70		■		■
NCB5-18GM40-Z0-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	350	5	60	40	■	■		■
NCB5-18GM40-Z1-V1	Flush	5	2-wire	2-wire	Normally-closed (NC)	350	5	60	40	■	■		■
NCB5-18GM40-Z3-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	350	5	60	55	■	■		■
NCB5-18GM60-B3B-V1	Flush	5	2-wire	AS-Interface	Normally open/close selectable	100	26.5	31.9	70		■		■
NJ5-18GM50-A2-V1	Flush	5	4-wire	PNP	Complementary	500	10	60	50	■	■		■
NJ5-18GM50-E-V1	Flush	5	3-wire	NPN	Normally-open (NO)	1500	10	60	65	■	■		■
NJ5-18GM50-E2-V1	Flush	5	3-wire	PNP	Normally-open (NO)	1500	10	60	65	■	■		■
NJ5-18GM50-E3-V1	Flush	5	3-wire	PNP	Normally-closed (NC)	1500	10	60	65	■	■		■
NBB8-18GM30-E2-V1	Flush	8	3-wire	PNP	Normally-open (NO)	500	10	30	30		■		■
NBB8-18GM30-E3-V1	Flush	8	3-wire	PNP	Normally-closed (NC)	500	10	30	30		■		■
NBB8-18GM35-A0-V1	Flush	8	4-wire	NPN	Complementary	1500	10	30	51				■
NBB8-18GM35-A2-V1	Flush	8	4-wire	PNP	Complementary	1500	10	30	51				■
NBB8-18GM50-E0-V1	Flush	8	3-wire	NPN	Normally-open (NO)	500	10	30	50		■		■
NBB8-18GM50-E2-V1	Flush	8	3-wire	PNP	Normally-open (NO)	500	10	30	50		■	■	■
NBB8-18GM60-A0-V1	Flush	8	4-wire	NPN	Complementary	500	10	30	60		■		■
NBB8-18GM60-A2-V1	Flush	8	4-wire	PNP	Complementary	500	10	30	60		■	■	■
NBB8-18GM60-B3-V1	Flush	8	2-wire	AS-Interface	Normally open/close selectable	200	26.5	31.9	75		■		■
NBB8-18GM60-B3B-V1	Flush	8	2-wire	AS-Interface	Normally open/close selectable	200	26.5	31.9	75		■		■
NCB8-18GM50-E2-V1	Flush	8	3-wire	PNP	Normally-open (NO)	500	10	30	50		■		■
NCB8-18GM50-Z4-V1	Flush	8	2-wire	2-wire	Normally-open (NO)	1000	3.5	30	65		■		■
NCB8-18GM50-Z5-V1	Flush	8	2-wire	2-wire	Normally-closed (NC)	1000	3.5	30	60		■		■
NCB8-18GM50-Z7-V1	Flush	8	2-wire	2-wire	Normally-closed (NC)	1000	3.5	30	60		■		■
NEB12-18GM50-E0-V1	Semi-flush	12	3-wire	NPN	Normally-open (NO)	500	10	30	69		■	■	■
NEB12-18GM50-E1-V1	Semi-flush	12	3-wire	NPN	Normally-closed (NC)	500	10	30	69		■	■	■
NEB12-18GM50-E2-V1	Semi-flush	12	3-wire	PNP	Normally-open (NO)	500	10	30	69		■	■	■

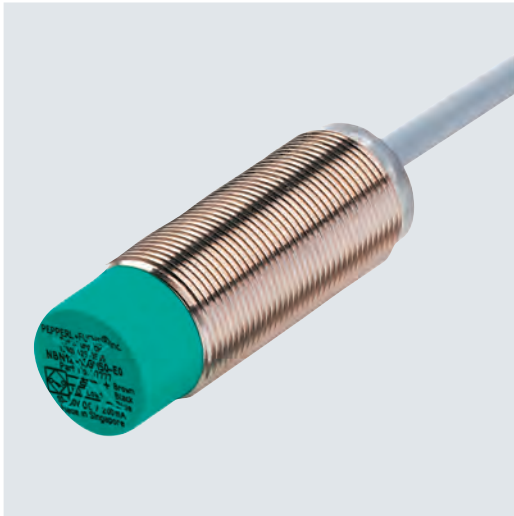
Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Length L	CCC	CSA	EAC	UL
NEB12-18GM50-E3-V1	Semi-flush	12	3-wire	PNP	Normally-closed (NC)	500	10	30	69	■	■	■	■
NBN8-18GM40-E3-V1	Non-flush	8	3-wire	PNP	Normally-closed (NC)	1000	10	30	40	■	■	■	■
NBN8-18GM40-Z0-V1	Non-flush	8	2-wire	2-wire	Normally-open (NO)	450	5	60	40	■	■	■	■
NBN8-18GM40-Z3-V1	Non-flush	8	2-wire	2-wire	Normally-open (NO)	450	5	60	40	■	■	■	■
NBN8-18GM50-E0-V1	Non-flush	8	3-wire	NPN	Normally-open (NO)	500	10	30	50	■	■	■	■
NBN8-18GM50-E2-V1	Non-flush	8	3-wire	PNP	Normally-open (NO)	500	10	30	65	■	■	■	■
NBN8-18GM60-A0-V1	Non-flush	8	4-wire	NPN	Complementary	700	10	30	60	■	■	■	■
NBN8-18GM60-A2-V1	Non-flush	8	4-wire	PNP	Complementary	700	10	30	60	■	■	■	■
NCN8-18GM40-Z0-V1	Non-flush	8	2-wire	2-wire	Normally-open (NO)	300	5	60	40	■	■	■	■
NCN8-18GM40-Z1-V1	Non-flush	8	2-wire	2-wire	Normally-closed (NC)	300	5	60	40	■	■	■	■
NCN8-18GM60-B3B-V1	Non-flush	8	2-wire	AS-Interface	Normally open/close selectable	100	26.5	31.9	60	■	■	■	■
NJ8-18GM50-A2-V1	Non-flush	8	4-wire	PNP	Complementary	500	10	60	65	■	■	■	■
NJ8-18GM50-E-V1	Non-flush	8	3-wire	NPN	Normally-open (NO)	1000	10	60	65	■	■	■	■
NJ8-18GM50-E2-V1	Non-flush	8	3-wire	PNP	Normally-open (NO)	1000	10	60	65	■	■	■	■
NJ8-18GM50-E3-V1	Non-flush	8	3-wire	PNP	Normally-closed (NC)	1000	10	60	65	■	■	■	■
NBN12-18GM35-A0-V1	Non-flush	12	4-wire	NPN	Complementary	1500	10	30	51	■	■	■	■
NBN12-18GM35-A2-V1	Non-flush	12	4-wire	PNP	Complementary	1500	10	30	51	■	■	■	■
NBN12-18GM35-E2-V1	Non-flush	12	3-wire	PNP	Normally-open (NO)	300	10	30	50	■	■	■	■
NBN12-18GM50-A0-V1	Non-flush	12	4-wire	NPN	Complementary	1000	10	30	65	■	■	■	■
NBN12-18GM50-A2-V1	Non-flush	12	4-wire	PNP	Complementary	1000	10	30	65	■	■	■	■
NBN12-18GM50-E0-V1	Non-flush	12	3-wire	NPN	Normally-open (NO)	200	10	30	50	■	■	■	■
NBN12-18GM50-E2-V1	Non-flush	12	3-wire	PNP	Normally-open (NO)	200	10	30	50	■	■	■	■
NCN12-18GM50-Z4-V1	Non-flush	12	2-wire	2-wire	Normally-open (NO)	1000	3.5	30	60	■	■	■	■
NCN12-18GM50-Z5-V1	Non-flush	12	2-wire	2-wire	Normally-closed (NC)	1000	3.5	30	60	■	■	■	■
NCN12-18GM50-Z7-V1	Non-flush	12	2-wire	2-wire	Normally-closed (NC)	1000	3.5	30	60	■	■	■	■
NEN20-18GM50-E0-V1	Non-flush	20	3-wire	NPN	Normally-open (NO)	200	10	30	69	■	■	■	■
NEN20-18GM50-E1-V1	Non-flush	20	3-wire	NPN	Normally-closed (NC)	200	10	30	69	■	■	■	■
NEN20-18GM50-E2-V1	Non-flush	20	3-wire	PNP	Normally-open (NO)	200	10	30	69	■	■	■	■
NEN20-18GM50-E3-V1	Non-flush	20	3-wire	PNP	Normally-closed (NC)	200	10	30	69	■	■	■	■



### Accessories

BF 18	Mounting adapter, 18 mm
BF 18-F	Plastic mounting adapter, 18 mm
EXG-18	Quick-mounting bracket with fixed stop
V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-G-BK0,3M-PUR-U-V1-G	Cordset, M12 to M12, PUR cable, 4-pin
V1-G-BK1M-PUR-U-V1-G	Cordset, M12 to M12, PUR cable, 4-pin
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable

# M18 Series – With Cable Connection



### Standard Technical Data

<b>Voltage type</b>	DC
<b>Connection type</b>	Fixed cable
<b>Housing diameter D</b>	18 mm
<b>UL</b>	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Cable length [mm]	Cable material	Length L	CCC	CSA	EAC	UL	E1
NBB5-18GK50-E0	Flush	5	3-wire	NPN	Normally-open (NO)	1000	10	30	2000	PVC	50	■	■			
NBB5-18GK50-E2	Flush	5	3-wire	PNP	Normally-open (NO)	1000	10	30	2000	PVC	50	■	■			
NBB5-18GM20-E2	Flush	5	3-wire	PNP	Normally-open (NO)	1000	10	30	2000	PVC	20	■	■			
NBB5-18GM40-E1	Flush	5	3-wire	NPN	Normally-closed (NC)	1000	10	30	2000	PVC	40	■	■			
NBB5-18GM40-E2	Flush	5	3-wire	PNP	Normally-open (NO)	1000	10	30	2000	PVC	40	■	■			
NBB5-18GM40-E2-5M	Flush	5	3-wire	PNP	Normally-open (NO)	1000	10	30	5000	PVC	40	■	■			
NBB5-18GM40-Z0	Flush	5	2-wire	2-wire	Normally-open (NO)	500	5	60	2000	PVC	40	■	■			
NBB5-18GM50-E0	Flush	5	3-wire	NPN	Normally-open (NO)	800	10	30	2000	PVC	50	■	■			
NBB5-18GM50-E0-5M	Flush	5	3-wire	NPN	Normally-open (NO)	800	10	30	5000	PVC	50					■
NBB5-18GM50-E2	Flush	5	3-wire	PNP	Normally-open (NO)	800	10	30	2000	PVC	50	■	■	■		
NBB5-18GM50-E2-10M	Flush	5	3-wire	PNP	Normally-open (NO)	800	10	30	10000	PVC	50					■
NBB5-18GM50-E2-5M	Flush	5	3-wire	PNP	Normally-open (NO)	800	10	30	5000	PVC	50	■	■			
NBB5-18GM50-E3	Flush	5	3-wire	PNP	Normally-closed (NC)	800	10	30	2000	PVC	50	■	■			
NBB5-18GM60-A0	Flush	5	4-wire	NPN	Complementary	800	10	30	2000	PVC	60	■	■			
NBB5-18GM60-A0-5M	Flush	5	4-wire	NPN	Complementary	800	10	30	5000	PVC	60	■	■			
NBB5-18GM60-A2	Flush	5	4-wire	PNP	Complementary	800	10	30	2000	PVC	60	■	■			
NBB5-18GM60-A2-5M	Flush	5	4-wire	PNP	Complementary	800	10	30	5000	PVC	60	■	■			
NBB5-18GM60-I	Flush	5	3-wire	Analog current output	4 mA ... 20 mA		10	30	2000	PVC	60					■
NBB5-18GM60-I3	Flush	5	3-wire	Analog current output	0 mA ... 20 mA		10	30	2000	PVC	60					■
NCB5-18GM40-Z0	Flush	5	2-wire	2-wire	Normally-open (NO)	350	5	60	2000	PUR	40	■	■			■
NCB5-18GM40-Z0-10M	Flush	5	2-wire	2-wire	Normally-open (NO)	350	5	60	10000	PUR	40	■	■			■
NCB5-18GM40-Z1	Flush	5	2-wire	2-wire	Normally-closed (NC)	350	5	60	2000	PUR	40	■	■			■
NJ5-18GK50-A2	Flush	5	3-wire	PNP	Complementary	500	10	60	2000	PVC	50	■	■			■
NJ5-18GM50-A2	Flush	5	4-wire	PNP	Complementary	500	10	60	2000	PVC	50	■	■			■
NJ5-18GM50-E	Flush	5	3-wire	NPN	Normally-open (NO)	1500	10	60	2000	PVC	50	■	■			■
NJ5-18GM50-E2	Flush	5	3-wire	PNP	Normally-open (NO)	1500	10	60	2000	PVC	50	■	■			■
NJ5-18GM50-E2-10M	Flush	5	3-wire	PNP	Normally-open (NO)	1500	10	60	10000	PVC	50	■	■			■
NJ5-18GM50-E2-5M	Flush	5	3-wire	PNP	Normally-open (NO)	1500	10	60	5000	PVC	50	■	■			■
NJ5-18GM50-E3	Flush	5	3-wire	PNP	Normally-closed (NC)	1500	10	60	2000	PVC	50	■	■			■
NBB8-18GM30-E2	Flush	8	3-wire	PNP	Normally-open (NO)	500	10	30	2000	PVC	30	■	■			
NBB8-18GM30-E3	Flush	8	3-wire	PNP	Normally-closed (NC)	500	10	30	2000	PVC	30	■	■			
NBB8-18GM35-A0	Flush	8	4-wire	NPN	Complementary	1500	10	30	2000	PVC	35					■
NBB8-18GM35-A2	Flush	8	4-wire	PNP	Complementary	1500	10	30	2000	PVC	35					■
NBB8-18GM50-E0	Flush	8	3-wire	NPN	Normally-open (NO)	500	10	30	2000	PVC	50	■	■			
NBB8-18GM50-E2	Flush	8	3-wire	PNP	Normally-open (NO)	500	10	30	2000	PVC	50	■	■			
NBB8-18GM50-E2-5M	Flush	8	3-wire	PNP	Normally-open (NO)	500	10	30	5000	PVC	50	■	■	■		
NBB8-18GM50-E2-6M	Flush	8	3-wire	PNP	Normally-open (NO)	500	10	30	6000	PVC	50	■	■			
NBB8-18GM60-A0	Flush	8	4-wire	NPN	Complementary	500	10	30	2000	PVC	60	■	■			

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Cable length [mm]	Cable material	Length L	CCC	CSA	EAC	UL	E1
NBB8-18GM60-A2	Flush	8	4-wire	PNP	Complementary	500	10	30	2000	PVC	60					
NCB8-18GM50-Z4	Flush	8	2-wire	2-wire	Normally-open (NO)	1000	3.5	30	2000	PVC	48					
NCB8-18GM50-Z5	Flush	8	2-wire	2-wire	Normally-closed (NC)	1000	3.5	30	2000	PVC	48					
NEB12-18GM50-E0	Semi-flush	12	3-wire	NPN	Normally-open (NO)	500	10	30	2000	PUR	53					
NEB12-18GM50-E1	Semi-flush	12	3-wire	NPN	Normally-closed (NC)	500	10	30	2000	PUR	53					
NEB12-18GM50-E2	Semi-flush	12	3-wire	PNP	Normally-open (NO)	500	10	30	2000	PUR	53					
NEB12-18GM50-E3	Semi-flush	12	3-wire	PNP	Normally-closed (NC)	500	10	30	2000	PUR	53					
NBN8-18GK50-A2	Non-flush	8	4-wire	PNP	Complementary	500	10	30	2000	PVC	50					
NBN8-18GM40-Z0	Non-flush	8	2-wire	2-wire	Normally-open (NO)	500	5	60	2000	PVC	40					
NBN8-18GM50-E0	Non-flush	8	3-wire	NPN	Normally-open (NO)	500	10	30	2000	PVC	50					
NBN8-18GM50-E2	Non-flush	8	3-wire	PNP	Normally-open (NO)	500	10	30	2000	PVC	50					
NBN8-18GM50-E2-5M	Non-flush	8	3-wire	PNP	Normally-open (NO)	500	10	30	5000	PVC	50					
NBN8-18GM60-A0	Non-flush	8	4-wire	NPN	Complementary	700	10	30	2000	PVC	60					
NBN8-18GM60-A2	Non-flush	8	4-wire	PNP	Complementary	700	10	30	2000	PVC	60					
NCN8-18GM40-Z0	Non-flush	8	2-wire	2-wire	Normally-open (NO)	300	5	60	2000	PUR	40					
NCN8-18GM40-Z1	Non-flush	8	2-wire	2-wire	Normally-closed (NC)	300	5	60	2000	PUR	40					
NJ8-18GK50-A2	Non-flush	8	4-wire	PNP	Complementary	500	10	60	2000	PVC	50					
NJ8-18GM50-A2	Non-flush	8	4-wire	PNP	Complementary	500	10	60	2000	PVC	50					
NJ8-18GM50-E0	Non-flush	8	3-wire	NPN	Normally-open (NO)	1000	10	60	2000	PVC	50					
NJ8-18GM50-E2	Non-flush	8	3-wire	PNP	Normally-open (NO)	1000	10	60	2000	PVC	50					
NJ8-18GM50-E2-10M	Non-flush	8	3-wire	PNP	Normally-open (NO)	1000	10	60	10000	PVC	50					
NJ8-18GM50-E2-5M	Non-flush	8	3-wire	PNP	Normally-open (NO)	1000	10	60	5000	PVC	50					
NJ8-18GM50-E3	Non-flush	8	3-wire	PNP	Normally-closed (NC)	1000	10	60	2000	PVC	50					
NBN12-18GM35-A0	Non-flush	12	4-wire	NPN	Complementary	1500	10	30	2000	PVC	35					
NBN12-18GM35-A2	Non-flush	12	4-wire	PNP	Complementary	1500	10	30	2000	PVC	35					
NBN12-18GM35-E2	Non-flush	12	3-wire	PNP	Normally-open (NO)	300	10	30	2000	PVC	50					
NBN12-18GM35-E3	Non-flush	12	3-wire	PNP	Normally-closed (NC)	300	10	30	2000	PVC	35					
NBN12-18GM35-E3-5M	Non-flush	12	3-wire	PNP	Normally-closed (NC)	300	10	30	5000	PVC	35					
NBN12-18GK50-E0-M	Non-flush	12	3-wire	NPN	Normally-open (NO)	1500	5	60	2000	PUR	58					
NBN12-18GK50-E1-M	Non-flush	12	3-wire	NPN	Normally-closed (NC)	1500	5	60	2000	PUR	58					
NBN12-18GK50-E2-M	Non-flush	12	3-wire	PNP	Normally-open (NO)	1500	5	60	2000	PUR	58					
NBN12-18GK50-E3-M	Non-flush	12	3-wire	PNP	Normally-closed (NC)	1500	5	60	2000	PUR	58					
NBN12-18GM50-A0	Non-flush	12	4-wire	NPN	Complementary	1000	10	30	2000	PVC	50					
NBN12-18GM50-A2	Non-flush	12	4-wire	PNP	Complementary	1000	10	30	2000	PVC	50					
NBN12-18GM50-E0	Non-flush	12	3-wire	NPN	Normally-open (NO)	200	10	30	2000	PVC	50					
NBN12-18GM50-E0-10M	Non-flush	12	3-wire	NPN	Normally-open (NO)	200	10	30	10000	PVC	50					
NBN12-18GM50-E2	Non-flush	12	3-wire	PNP	Normally-open (NO)	200	10	30	2000	PVC	50					
NCN12-18GM50-Z4	Non-flush	12	2-wire	2-wire	Normally-open (NO)	1000	3.5	30	2000	PVC	48					
NCN12-18GM50-Z5	Non-flush	12	2-wire	2-wire	Normally-closed (NC)	1000	3.5	30	2000	PVC	48					
NEN20-18GM50-E0	Non-flush	20	3-wire	NPN	Normally-open (NO)	200	10	30	2000	PUR	53					
NEN20-18GM50-E1	Non-flush	20	3-wire	NPN	Normally-closed (NC)	200	10	30	2000	PUR	53					
NEN20-18GM50-E2	Non-flush	20	3-wire	PNP	Normally-open (NO)	200	10	30	2000	PUR	53					
NEN20-18GM50-E3	Non-flush	20	3-wire	PNP	Normally-closed (NC)	200	10	30	2000	PUR	53					

Accessories	
BF 18	Mounting adapter, 18 mm
BF 18-F	Plastic mounting adapter, 18 mm
EXG-18	Quick-mounting bracket with fixed stop

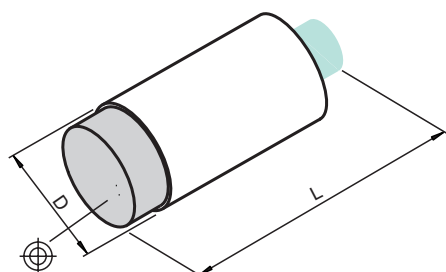
# M18 Series – 250 V Version



Standard Technical Data	
Output type	2-wire
Operating voltage (min)	20 V
Housing diameter D	18 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (max)	Connection type	Cable length [mm]	Cable material	Length L	CCC	CSA	UL
NBB5-18GM60-WO	Flush	5	2-wire	Normally-closed (NC)	AC	20	253	Fixed cable	2000	PVC	60	■	■	■
NBB5-18GM60-WO-V12	Flush	5	2-wire	Normally-closed (NC)	AC	20	253	1/2 inch connector plug			60	■	■	■
NBB5-18GM60-WS	Flush	5	2-wire	Normally-open (NO)	AC	20	253	Fixed cable	2000	PVC	60	■	■	■
NBB5-18GM60-WS-10M	Flush	5	2-wire	Normally-open (NO)	AC	20	253	Fixed cable	10000	PVC	60	■	■	■
NBB5-18GM60-WS-5M	Flush	5	2-wire	Normally-open (NO)	AC	20	253	Fixed cable	5000	PVC	60	■	■	■
NBB5-18GM60-WS-V11	Flush	5	2-wire	Normally-open (NO)	AC	20	253	M12 connector plug			60	■	■	■
NBB5-18GM60-WS-V12	Flush	5	2-wire	Normally-open (NO)	AC	20	253	1/2 inch connector plug			60	■	■	■
NBB5-18GM80-WO-V93	Flush	5	2-wire	Normally-closed (NC)	AC	20	253	7/8 inch connector plug			80	■	■	■
NBB5-18GM80-WS-V93	Flush	5	2-wire	Normally-open (NO)	AC	20	253	7/8 inch connector plug			80	■	■	■
NBB8-18GM55-UO-V93	Flush	8	3-wire	Normally-closed (NC)	AC/DC	30	300	7/8 inch connector plug			75	■	■	■
NBB8-18GM60-UO	Flush	8	3-wire	Normally-closed (NC)	AC/DC	30	300	Fixed cable	2000	PUR	63	■	■	■
NBB8-18GM60-UO-V12	Flush	8	3-wire	Normally-closed (NC)	AC/DC	30	300	1/2 inch connector plug			70	■	■	■
NBB8-18GM60-US	Flush	8	2-wire	Normally-open (NO)	AC/DC	30	300	Fixed cable	2000	PUR	63	■	■	■
NBB8-18GM60-US-10M	Flush	8	3-wire	Normally-open (NO)	AC/DC	30	300	Fixed cable	10000	PUR	63	■	■	■
NBB8-18GM60-US-V12	Flush	8	3-wire	Normally-open (NO)	AC/DC	30	300	1/2 inch connector plug			70	■	■	■
NBN8-18GM60-WO	Non-flush	8	2-wire	Normally-closed (NC)	AC	20	253	Fixed cable	2000	PVC	60	■	■	■
NBN8-18GM60-WO-V12	Non-flush	8	2-wire	Normally-closed (NC)	AC	20	253	1/2 inch connector plug			60	■	■	■
NBN8-18GM60-WS	Non-flush	8	2-wire	Normally-open (NO)	AC	20	253	Fixed cable	2000	PVC	60	■	■	■
NBN8-18GM60-WS-V11	Non-flush	8	2-wire	Normally-open (NO)	AC	20	253	M12 connector plug			60	■	■	■
NBN8-18GM60-WS-V12	Non-flush	8	2-wire	Normally-open (NO)	AC	20	253	1/2 inch connector plug			60	■	■	■
NBN8-18GM80-WO-V93	Non-flush	8	2-wire	Normally-closed (NC)	AC	20	253	7/8 inch connector plug			80	■	■	■
NBN8-18GM80-WS-V93	Non-flush	8	2-wire	Normally-open (NO)	AC	20	253	7/8 inch connector plug			80	■	■	■
NBN15-18GM55-UO-V93	Non-flush	15	3-wire	Normally-closed (NC)	AC/DC	30	300				75			■
NBN15-18GM55-US-V93	Non-flush	15	3-wire	Normally-open (NO)	AC/DC	30	300	7/8 inch connector plug			75	■	■	■
NBN15-18GM60-UO	Non-flush	15	3-wire	Normally-closed (NC)	AC/DC	30	300	Fixed cable	2000	PUR	63	■	■	■
NBN15-18GM60-UO-V12	Non-flush	15	3-wire	Normally-closed (NC)	AC/DC	30	300	1/2 inch connector plug			70	■	■	■
NBN15-18GM60-US	Non-flush	15	3-wire	Normally-open (NO)	AC/DC	30	300	Fixed cable	2000	PUR	63	■	■	■
NBN15-18GM60-US-V12	Non-flush	15	3-wire	Normally-open (NO)	AC/DC	30	300	1/2 inch connector plug			70	■	■	■



Accessories	
BF 18	Mounting adapter, 18 mm
EXG-18	Quick-mounting bracket with fixed stop
V11-G-2M-PUR	Single-ended female cordset, M12, 3-pin, PUR cable
V12-G-YE2M-PVC	Cordset, 1/2"-20 UNF, 3-pin, PVC cable
V93-G-YE2M-STOOW	Single-ended female cordset, 7/8", 3-pole, STOOW cable





# M30 Series – With Plug Connection

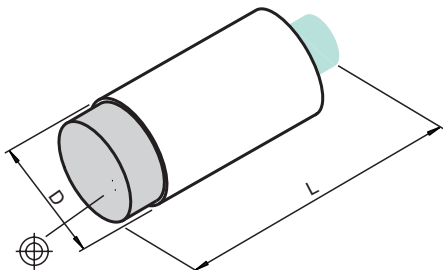


Standard Technical Data	
Voltage type	DC
Connection type	M12 connector plug
Housing diameter D	30 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Length L	CCC	CSA	EAC	UL
NBB10-30GM40-Z0-V1	Flush	10	2-wire	2-wire	Normally-open (NO)	150	5	60	40	■	■	■	■
NBB10-30GM40-Z3-V1	Flush	10	2-wire	2-wire	Normally-open (NO)	150	5	60	40	■	■	■	■
NBB10-30GM50-E0-V1	Flush	10	3-wire	NPN	Normally-open (NO)	200	10	30	50	■	■	■	■
NBB10-30GM50-E2-V1	Flush	10	3-wire	PNP	Normally-open (NO)	200	10	30	50	■	■	■	■
NBB10-30GM50-E3-V1	Flush	10	3-wire	PNP	Normally-closed (NC)	200	10	30	50	■	■	■	■
NBB10-30GM60-A0-V1	Flush	10	4-wire	NPN	Complementary	200	10	30	60	■	■	■	■
NBB10-30GM60-A2-V1	Flush	10	4-wire	PNP	Complementary	200	10	30	60	■	■	■	■
NCB10-30GM40-Z0-V1	Flush	10	2-wire	2-wire	Normally-open (NO)	150	5	60	40	■	■	■	■
NCB10-30GM40-Z1-V1	Flush	10	2-wire	2-wire	Normally-closed (NC)	150	5	60	40	■	■	■	■
NJ10-30GM50-A2-V1	Flush	10	4-wire	PNP	Complementary	300	10	60	50	■	■	■	■
NBB15-30GM30-E2-V1	Flush	15	3-wire	PNP	Normally-open (NO)	150	10	30	30	■	■	■	■
NBB15-30GM30-E3-V1	Flush	15	3-wire	PNP	Normally-closed (NC)	150	10	30	30	■	■	■	■
NBB15-30GM35-A0-V1	Flush	15	4-wire	NPN	Complementary	1000	10	30	51	■	■	■	■
NBB15-30GM35-A2-V1	Flush	15	4-wire	PNP	Complementary	1000	10	30	51	■	■	■	■
NBB15-30GM50-E0-V1	Flush	15	3-wire	NPN	Normally-open (NO)	200	10	30	50	■	■	■	■
NBB15-30GM50-E2-V1	Flush	15	3-wire	PNP	Normally-open (NO)	200	10	30	65	■	■	■	■
NBB15-30GM60-A0-V1	Flush	15	4-wire	NPN	Complementary	200	10	30	60	■	■	■	■
NBB15-30GM60-A2-V1	Flush	15	4-wire	PNP	Complementary	200	10	30	60	■	■	■	■
NBB15-30GM60-B3B-V1	Flush	15	2-wire	AS-Interface	Normally open/close selectable	200	26.5	31.9	65	■	■	■	■
NCB15-30GM50-Z4-V1	Flush	15	2-wire	2-wire	Normally-open (NO)	500	3.5	30	48	■	■	■	■
NCB15-30GM50-Z5-V1	Flush	15	2-wire	2-wire	Normally-closed (NC)	500	3.5	30	48	■	■	■	■
NCB15-30GM50-Z7-V1	Flush	15	2-wire	2-wire	Normally-closed (NC)	500	3.5	30	48	■	■	■	■
NEB22-30GM60-E0-V1	Semi-flush	22	3-wire	NPN	Normally-open (NO)	150	10	30	73.5	■	■	■	■
NEB22-30GM60-E2-V1	Semi-flush	22	3-wire	PNP	Normally-open (NO)	150	10	30	73.5	■	■	■	■
NEB22-30GM60-E3-V1	Semi-flush	22	3-wire	PNP	Normally-closed (NC)	150	10	30	73.5	■	■	■	■
NBN15-30GM40-Z0-V1	Non-flush	15	2-wire	2-wire	Normally-open (NO)	150	5	60	40	■	■	■	■
NBN15-30GM40-Z3-V1	Non-flush	15	2-wire	2-wire	Normally-open (NO)	150	5	60	40	■	■	■	■
NBN15-30GM50-E0-V1	Non-flush	15	3-wire	NPN	Normally-open (NO)	200	10	30	50	■	■	■	■
NBN15-30GM50-E2-V1	Non-flush	15	3-wire	PNP	Normally-open (NO)	200	10	30	50	■	■	■	■
NBN15-30GM60-A0-V1	Non-flush	15	4-wire	NPN	Complementary	200	10	30	60	■	■	■	■
NBN15-30GM60-A2-V1	Non-flush	15	4-wire	PNP	Complementary	200	10	30	60	■	■	■	■
NCN15-30GM40-Z0-V1	Non-flush	15	2-wire	2-wire	Normally-open (NO)	100	5	60	40	■	■	■	■
NCN15-30GM40-Z1-V1	Non-flush	15	2-wire	2-wire	Normally-closed (NC)	100	5	60	40	■	■	■	■
NJ15-30GM50-A2-V1	Non-flush	15	4-wire	PNP	Complementary	300	10	60	50	■	■	■	■
NBN20-30GM40-A0-V1	Non-flush	20	4-wire	NPN	Complementary	1000	10	30	56	■	■	■	■
NBN20-30GM40-A2-V1	Non-flush	20	4-wire	PNP	Complementary	1000	10	30	56	■	■	■	■
NBN22-30GM35-E2-V1	Non-flush	22	3-wire	PNP	Normally-open (NO)	80	10	30	50	■	■	■	■
NBN25-30GM50-E0-V1	Non-flush	25	3-wire	NPN	Normally-open (NO)	200	10	30	50	■	■	■	■

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Length L	CCC	CSA	EAC	UL
<b>NBN25-30GM50-E2-V1</b>	Non-flush	25	3-wire	PNP	Normally-open (NO)	200	10	30	50				
<b>NCN25-30GM50-Z4-V1</b>	Non-flush	25	2-wire	2-wire	Normally-open (NO)	500	3.5	30	48				
<b>NCN25-30GM50-Z5-V1</b>	Non-flush	25	2-wire	2-wire	Normally-closed (NC)	500	3.5	30	48				
<b>NCN25-30GM50-Z7-V1</b>	Non-flush	25	2-wire	2-wire	Normally-closed (NC)	500	3.5	30	48				
<b>NEN40-30GM60-E0-V1</b>	Non-flush	40	3-wire	NPN	Normally-open (NO)	100	10	30	73.5				
<b>NEN40-30GM60-E2-V1</b>	Non-flush	40	3-wire	PNP	Normally-open (NO)	100	10	30	73.5				
<b>NEN40-30GM60-E3-V1</b>	Non-flush	40	3-wire	PNP	Normally-closed (NC)	100	10	30	73.5				



Accessories	
<b>BF 30</b>	Mounting adapter, 30 mm
<b>BF 30-F</b>	Plastic mounting adapter, 30 mm
<b>EXG-30</b>	Quick-mounting bracket with fixed stop
<b>V1-G-2M-PUR</b>	Single-ended female cordset, M12, 4-pin, PUR cable
<b>V1-G-BK0,3M-PUR-U-V1-G</b>	Cordset, M12 to M12, PUR cable, 4-pin
<b>V1-W-2M-PUR</b>	Single-ended female cordset, M12, 4-pin, PUR cable



## M30 Series – With Cable Connection



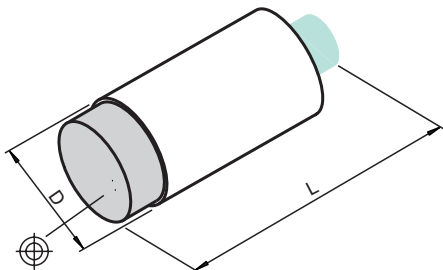
### Standard Technical Data

Connection type	Fixed cable
Housing diameter D	30 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	Cable length [mm]	Cable material	Length L	CCC	CSA	UL
NBB8-30GM60-I3	Flush	8	3-wire	Analog current output	0 mA ... 20 mA	DC		15	30	2000	PVC	60			■
NBB10-30GK50-E0	Flush	10	3-wire	NPN	Normally-open (NO)	DC	200	10	30	2000	PVC	50	■	■	
NBB10-30GK50-E2	Flush	10	3-wire	PNP	Normally-open (NO)	DC	200	10	30	2000	PVC	50	■	■	
NBB10-30GK50-E2-10M	Flush	10	3-wire	PNP	Normally-open (NO)	DC	200	10	30	10000	PVC	50	■	■	
NBB10-30GM40-E2	Flush	10	3-wire	PNP	Normally-open (NO)	DC	200	10	30	2000	PVC	40	■	■	
NBB10-30GM40-Z0	Flush	10	2-wire	2-wire	Normally-open (NO)	DC	150	5	60	2000	PVC	40	■	■	■
NBB10-30GM50-E0	Flush	10	3-wire	NPN	Normally-open (NO)	DC	200	10	30	2000	PVC	50	■	■	
NBB10-30GM50-E2	Flush	10	3-wire	PNP	Normally-open (NO)	DC	200	10	30	2000	PVC	50	■	■	
NBB10-30GM60-A0	Flush	10	4-wire	NPN	Complementary	DC	200	10	30	2000	PVC	60	■	■	
NBB10-30GM60-A2	Flush	10	4-wire	PNP	Complementary	DC	200	10	30	2000	PVC	60	■	■	
NBB10-30GM60-A2-5M	Flush	10	4-wire	PNP	Complementary	DC	200	10	30	5000	PVC	60	■	■	
NCB10-30GM40-Z0	Flush	10	2-wire	2-wire	Normally-open (NO)	DC	150	5	60	2000	PUR	40	■	■	■
NCB10-30GM40-Z1	Flush	10	2-wire	2-wire	Normally-closed (NC)	DC	150	5	60	2000	PUR	40	■	■	■
NJ10-30GK50-A2	Flush	10	4-wire	PNP	Complementary	DC	500	10	60	2000	PVC	50	■	■	■
NJ10-30GM50-A2	Flush	10	4-wire	PNP	Complementary	DC	300	10	60	2000	PVC	50	■	■	■
NBB15-30GM30-E2	Flush	15	3-wire	PNP	Normally-open (NO)	DC	150	10	30	2000	PVC	30	■	■	
NBB15-30GM30-E3	Flush	15	3-wire	PNP	Normally-closed (NC)	DC	150	10	30	2000	PVC	30	■	■	
NBB15-30GM35-A0	Flush	15	4-wire	NPN	Complementary	DC	1000	10	30	2000	PVC	35			■
NBB15-30GM35-A2	Flush	15	4-wire	PNP	Complementary	DC	1000	10	30	2000	PVC	35			■
NBB15-30GM50-E0	Flush	15	3-wire	NPN	Normally-open (NO)	DC	200	10	30	2000	PVC	50	■	■	
NBB15-30GM50-E2	Flush	15	3-wire	PNP	Normally-open (NO)	DC	200	10	30	2000	PVC	50	■	■	
NBB15-30GM60-A0	Flush	15	4-wire	NPN	Complementary	DC	200	10	30	2000	PVC	60	■	■	
NBB15-30GM60-A2	Flush	15	4-wire	PNP	Complementary	DC	200	10	30	2000	PVC	60	■	■	
NCB15-30GM50-Z4	Flush	15	2-wire	2-wire	Normally-open (NO)	DC	500	3.5	30	2000	PVC	48	■	■	
NCB15-30GM50-Z5	Flush	15	2-wire	2-wire	Normally-closed (NC)	DC	500	3.5	30	2000	PVC	48	■	■	
NEB22-30GM60-E0	Semi-flush	22	3-wire	NPN	Normally-open (NO)	DC	150	10	30	2000	PVC	60			
NEB22-30GM60-E2	Semi-flush	22	3-wire	PNP	Normally-open (NO)	DC	150	10	30	2000	PVC	60			
NBN15-30GK50-E0	Non-flush	15	3-wire	NPN	Normally-open (NO)	DC	200	10	30	2000	PVC	50	■	■	
NBN15-30GK50-E2	Non-flush	15	3-wire	PNP	Normally-open (NO)	DC	200	10	30	2000	PVC	50	■	■	
NBN15-30GK50-E2-25M	Non-flush	15	3-wire	PNP	Normally-open (NO)	DC	200	10	30	5000	PVC	50	■	■	
NBN15-30GK60-AR-1M	Non-flush	15	Relay	Relay	Change-over contact	DC	20	10	30	1000	PVC	60	■	■	
NBN15-30GK60-AR-3M	Non-flush	15	Relay	Relay	Change-over contact	DC	20	10	30	3000	PVC	60	■	■	
NBN15-30GK60-UR-5M	Non-flush	15	Relay	Relay	Change-over contact	AC/DC		20	132	5000	PVC	60	■	■	
NBN15-30GM40-Z0	Non-flush	15	2-wire	2-wire	Normally-open (NO)	DC	150	5	60	2000	PVC	40	■	■	■
NBN15-30GM50-E0	Non-flush	15	3-wire	NPN	Normally-open (NO)	DC	200	10	30	2000	PVC	50	■	■	
NBN15-30GM50-E2	Non-flush	15	3-wire	PNP	Normally-open (NO)	DC	200	10	30	2000	PVC	50	■	■	
NBN15-30GM60-A0	Non-flush	15	4-wire	NPN	Complementary	DC	200	10	30	2000	PVC	60	■	■	

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	Cable length [mm]	Cable material	Length L	CCC	CSA	UL
<b>NBN15-30GM60-A2</b>	Non-flush	15	4-wire	PNP	Complementary	DC	200	10	30	2000	PVC	60			
<b>NBN15-30GM60-A2-5M</b>	Non-flush	15	4-wire	PNP	Complementary	DC	200	10	30	5000	PVC	60			
<b>NBN15-30GM60-I3</b>	Non-flush	15	3-wire	Analog current output	0 mA ... 20 mA	DC		15	30	2000	PVC	60			
<b>NBN15-30GM60-I3-5M</b>	Non-flush	15	3-wire	Analog current output	0 mA ... 20 mA	DC		15	30	5000	PVC	60			
<b>NCN15-30GM40-Z0</b>	Non-flush	15	2-wire	2-wire	Normally-open (NO)	DC	100	5	60	2000	PUR	40			
<b>NCN15-30GM40-Z0-10M</b>	Non-flush	15	2-wire	2-wire	Normally-open (NO)	DC	100	5	60	10000	PUR	40			
<b>NCN15-30GM40-Z1</b>	Non-flush	15	2-wire	2-wire	Normally-closed (NC)	DC	100	5	60	2000	PUR	40			
<b>NJ15-30GK50-A2</b>	Non-flush	15	4-wire	PNP	Complementary	DC	300	10	60	2000	PVC	50			
<b>NJ15-30GK50-A2</b>	Non-flush	15	4-wire	PNP	Complementary	DC	300	10	60	2000	PVC	50			
<b>NBN20-30GM40-A0</b>	Non-flush	20	4-wire	NPN	Complementary	DC	1000	10	30	2000	PVC	40			
<b>NBN20-30GM40-A2</b>	Non-flush	20	4-wire	PNP	Complementary	DC	1000	10	30	2000	PVC	40			
<b>NBN22-30GM35-E2</b>	Non-flush	22	3-wire	PNP	Normally-open (NO)	DC	80	10	30	2000	PVC	35			
<b>NBN25-30GM50-E0</b>	Non-flush	25	3-wire	NPN	Normally-open (NO)	DC	200	10	30	2000	PVC	50			
<b>NBN25-30GM50-E2</b>	Non-flush	25	3-wire	PNP	Normally-open (NO)	DC	200	10	30	2000	PVC	50			
<b>NCN25-30GM50-Z4</b>	Non-flush	25	2-wire	2-wire	Normally-open (NO)	DC	500	3.5	30	2000	PVC	48			
<b>NCN25-30GM50-Z5</b>	Non-flush	25	2-wire	2-wire	Normally-closed (NC)	DC	500	3.5	30	2000	PVC	48			
<b>NEN40-30GM60-E0</b>	Non-flush	40	3-wire	NPN	Normally-open (NO)	DC	100	10	30	2000	PVC	60			
<b>NEN40-30GM60-E2</b>	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	100	10	30	2000	PVC	60			



#### Accessories

<b>AB-30</b>	Mounting aid
<b>BF 30</b>	Mounting adapter, 30 mm
<b>EXG-18</b>	Quick-mounting bracket with fixed stop
<b>EXG-30</b>	Quick-mounting bracket with fixed stop
<b>V1-G-2M-PUR</b>	Single-ended female cordset, M12, 4-pin, PUR cable
<b>V1-W-2M-PUR</b>	Single-ended female cordset, M12, 4-pin, PUR cable

## M30 Series – 250 V Version



### Standard Technical Data

<b>Output type</b>	2-wire
<b>Operating voltage (min)</b>	20 V
<b>Housing diameter D</b>	30 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (max)	Connection type	Cable length [mm]	Cable material	Length L	CCC	CSA	UL
NBB10-30GKK-WO	Flush	10	2-wire	Normally-closed (NC)	AC	20	250	Terminal compartment			115	■	■	■
NBB10-30GKK-WS	Flush	10	2-wire	Normally-open (NO)	AC	20	250	Terminal compartment			115	■	■	■
NBB10-30GM50-WO	Flush	10	2-wire	Normally-closed (NC)	AC	20	253	Fixed cable	2000	PVC	50	■	■	■
NBB10-30GM50-WO-10M	Flush	10	2-wire	Normally-closed (NC)	AC	20	253	Fixed cable	10000	PVC	50	■	■	■
NBB10-30GM50-WO-V12	Flush	10	2-wire	Normally-closed (NC)	AC	20	253	1/2 inch connector plug			60	■	■	■
NBB10-30GM50-WO-V93	Flush	10	2-wire	Normally-closed (NC)	AC	20	253	7/8 inch connector plug			50	■	■	■
NBB10-30GM50-WS	Flush	10	2-wire	Normally-open (NO)	AC	20	253	Fixed cable	2000	PVC	50	■	■	■
NBB10-30GM50-WS-10M	Flush	10	2-wire	Normally-open (NO)	AC	20	253	Fixed cable	10000	PVC	50	■	■	■
NBB10-30GM50-WS-V11	Flush	10	2-wire	Normally-open (NO)	AC	20	253	M12 connector plug			60	■	■	■
NBB10-30GM50-WS-V12	Flush	10	2-wire	Normally-open (NO)	AC	20	253	1/2 inch connector plug			60	■	■	■
NBB10-30GM50-WS-V93	Flush	10	2-wire	Normally-open (NO)	AC	20	253	7/8 inch connector plug			50	■	■	■
NBB15-30GKK-WO	Flush	15	2-wire	Normally-closed (NC)	AC	20	250	Terminal compartment			115	■	■	■
NBB15-30GKK-WS	Flush	15	2-wire	Normally-open (NO)	AC	20	250	Terminal compartment			115	■	■	■
NBB15-30GM50-UO	Flush	15	3-wire	Normally-closed (NC)	AC/DC	30	300	Fixed cable	2000	PUR	50	■	■	■
NBB15-30GM50-UO-5M	Flush	15	3-wire	Normally-closed (NC)	AC/DC	30	300	Fixed cable	5000	PUR	50			■
NBB15-30GM50-UO-V12	Flush	15	3-wire	Normally-closed (NC)	AC/DC	30	300	M12 connector plug			60	■	■	■
NBB15-30GM50-UO-V93	Flush	15	3-wire	Normally-closed (NC)	AC/DC	30	300	7/8 inch connector plug			65	■	■	■
NBB15-30GM50-US	Flush	15	2-wire	Normally-open (NO)	AC/DC	30	300	Fixed cable	2000	PUR	50	■	■	■
NBB15-30GM50-US-5M	Flush	15	3-wire	Normally-open (NO)	AC/DC	30	300	Fixed cable	5000	PUR	50	■	■	■
NBB15-30GM50-US-V12	Flush	15	3-wire	Normally-open (NO)	AC/DC	30	300	1/2 inch connector plug			60	■	■	■
NBB15-30GM50-US-V93	Flush	15	3-wire	Normally-open (NO)	AC/DC	30	300	7/8 inch connector plug			65	■	■	■
NBB15-30GM50-WO	Semi-flush	15	2-wire	Normally-closed (NC)	AC	20	253	Fixed cable	2000	PVC	50	■	■	■
NBB15-30GM50-WO-V12	Semi-flush	15	2-wire	Normally-closed (NC)	AC	20	253	1/2 inch connector plug			60	■	■	■
NBB15-30GM50-WO-V93	Semi-flush	15	2-wire	Normally-closed (NC)	AC	20	253	7/8 inch connector plug			50		■	■
NBB15-30GM50-WS	Semi-flush	15	2-wire	Normally-open (NO)	AC	20	253	Fixed cable	2000	PVC	50	■	■	■
NBB15-30GM50-WS-5M	Semi-flush	15	2-wire	Normally-open (NO)	AC	20	253	Fixed cable	5000	PVC	50			
NBB15-30GM50-WS-V11	Semi-flush	15	2-wire	Normally-open (NO)	AC	20	250	M12 connector plug			60	■	■	■
NBB15-30GM50-WS-V12	Semi-flush	15	2-wire	Normally-open (NO)	AC	20	253	1/2 inch connector plug			60	■	■	■
NBB15-30GM50-WS-V93	Semi-flush	15	2-wire	Normally-open (NO)	AC	20	253	7/8 inch connector plug			50	■	■	■
NBN25-30GM50-UO	Non-flush	25	3-wire	Normally-closed (NC)	AC/DC	30	300	Fixed cable	2000	PUR	51	■	■	■
NBN25-30GM50-UO-V12	Non-flush	25	3-wire	Normally-closed (NC)	AC/DC	30	300	1/2 inch connector plug			60	■	■	■
NBN25-30GM50-UO-V93	Non-flush	25	3-wire	Normally-closed (NC)	AC/DC	30	300	7/8 inch connector plug			65	■	■	■
NBN25-30GM50-US	Non-flush	25	3-wire	Normally-open (NO)	AC/DC	30	300	Fixed cable	2000	PUR	51	■	■	■
NBN25-30GM50-US-V12	Non-flush	25	3-wire	Normally-open (NO)	AC/DC	30	300	1/2 inch connector plug			60	■	■	■
NBN25-30GM50-US-V93	Non-flush	25	3-wire	Normally-open (NO)	AC/DC	30	300	7/8 inch connector plug			65	■	■	■
NBN25-30GM65-US-5M	Non-flush	25	3-wire	Normally-open (NO)	AC/DC	30	300	Fixed cable	5000	PUR	51	■		■



# Cube-Style Inductive Proximity Sensors

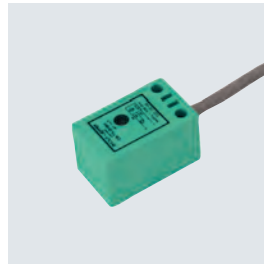
## Contents



**F Series**  
Page 47



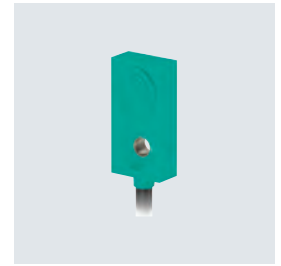
**F1 Series**  
Page 47



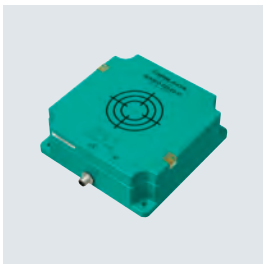
**F7 Series**  
Page 48



**F76 Series**  
Page 49



**F79 Series**  
Page 50



**F23 Series**  
Page 56



**F29 Series**  
Page 57



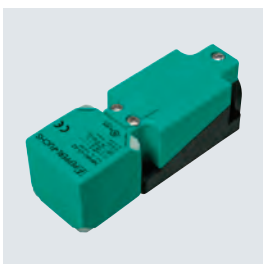
**F33/F33M Series**  
Page 58



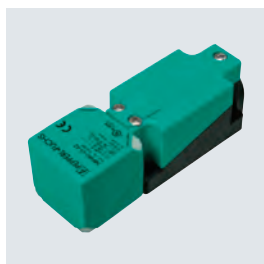
**F41/F41A Series**  
Page 59



**FP Series**  
Page 60



**VariKont U4 Series**  
Page 68



**VariKont U10 Series**  
Page 69



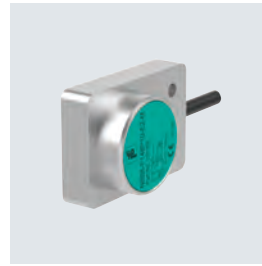
**F9 Series**  
Page 51



**F10 Series**  
Page 52



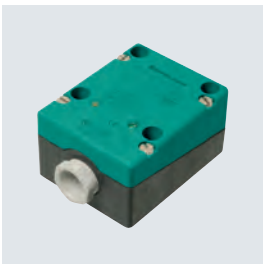
**F11 Series**  
Page 53



**F148 Series**  
Page 54



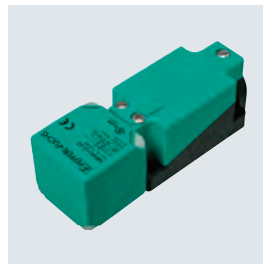
**V3 Series**  
Page 55



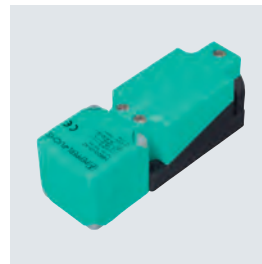
**FPS Series**  
Page 61



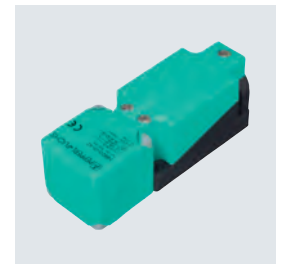
**VariKont L2/L3 Series**  
Page 62



**VariKont U1 Series**  
Page 64



**VariKont U2 Series**  
Page 66



**VariKont U3 Series**  
Page 67



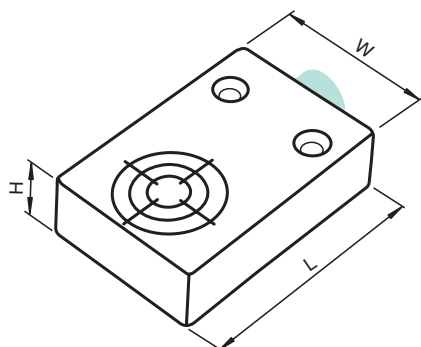
# F Series



Standard Technical Data	
Voltage type	DC
Connection type	Fixed cable
Housing length L	45 mm
Housing width W	30 mm
Housing height H	12 mm
CSA	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Cable length [mm]	Cable material	CCC
NJ6-F-A	Flush	6	4-wire	NPN	Complementary	500	10	60	2000	PUR	■
NJ6-F-A2	Flush	6	4-wire	PNP	Complementary	500	10	60	2000	PUR	■
NJ6-F-E	Flush	6	3-wire	NPN	Normally-open (NO)	500	10	60	2000	PUR	■
NJ6-F-E2	Flush	6	3-wire	PNP	Normally-open (NO)	500	10	60	2000	PUR	■
NJ6-F-E2-5M	Flush	6	3-wire	PNP	Normally-open (NO)	500	10	60	5000	PUR	■
NJ6-F-E2-10M	Flush	6	3-wire	PNP	Normally-open (NO)	500	10	60	10000	PUR	■
NBB6-F-B3	Flush	6	2-wire	AS-Interface	Normally open/close selectable		26.5	31.9	2000	PVC	
NBB6-F-B3B	Flush	6	2-wire	AS-Interface	Normally open/close selectable		26.5	31.9	2000	PVC	
NBB6-F-E2	Flush	6	3-wire	PNP	Normally-open (NO)	500	10	30	5000	PVC	
NJ10-F-A2	Flush	10	4-wire	PNP	Complementary	200	10	60	2000	PUR	■
NJ10-F-E2	Non-flush	10	3-wire	PNP	Normally-open (NO)	250	10	60	2000	PUR	■





# F1 Series

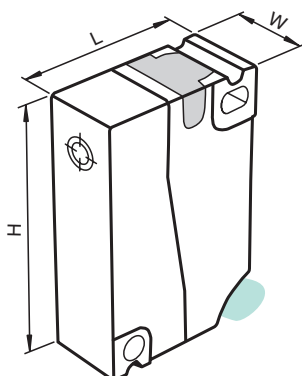


### Standard Technical Data

Housing length L	26 mm
Housing width W	12 mm
Housing height H	40 mm
CSA	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Cable length [mm]	Cable material	CCC
NBB2-F1-US	Flush	2	2-wire	2-wire	Normally-open (NO)	AC/DC	25	20	253	Fixed cable	2000	PVC	■
NBB2-F1-E2	Flush	2	3-wire	PNP	Normally-open (NO)	DC	1400	10	30	Fixed cable	2000	PVC	
NBB2-F1-E2-V3	Flush	2	3-wire	PNP	Normally-open (NO)	DC	1400	10	30	M8 connector plug			
NBB4-F1-A0	Flush	4	4-wire	NPN	Complementary	DC	1400	10	30	Fixed cable	2000	PVC	
NBB4-F1-A0 5M	Flush	4	4-wire	NPN	Complementary	DC	1400	10	30	Fixed cable	5000	PVC	
NBB4-F1-A0-V31	Flush	4	4-wire	NPN	Complementary	DC	1400	10	30	M8 connector plug			
NBB4-F1-A2	Flush	4	4-wire	PNP	Complementary	DC	1400	10	30	Fixed cable	2000	PVC	
NBB4-F1-A2-V31	Flush	4	4-wire	PNP	Complementary	DC	1400	10	30	M8 connector plug			
NBB4-F1-E0	Flush	4	3-wire	NPN	Normally-open (NO)	DC	1400	10	30	Fixed cable	2000	PVC	
NBB4-F1-E0-V3	Flush	4	3-wire	NPN	Normally-open (NO)	DC	1400	10	30	M8 connector plug			
NBB4-F1-E2	Flush	4	3-wire	PNP	Normally-open (NO)	DC	1400	10	30	Fixed cable	2000	PVC	
NBB4-F1-E2-6M	Flush	4	3-wire	PNP	Normally-open (NO)	DC	1400	10	30	Fixed cable	6000	PVC	
NBB4-F1-E2-V3	Flush	4	3-wire	PNP	Normally-open (NO)	DC	1400	10	30	M8 connector plug			
NBB4-F1-E3	Flush	4	3-wire	PNP	Normally-closed (NC)	DC	1400	10	30	Fixed cable	2000	PVC	
NBB4-F1-E3-6M	Flush	4	3-wire	PNP	Normally-closed (NC)	DC	1400	10	30	Fixed cable	6000	PVC	
NBB4-F1-E3-V3	Flush	4	3-wire	PNP	Normally-closed (NC)	DC	1400	10	30	M8 connector plug			
NBB4-F1-UO	Flush	4	2-wire	2-wire	Normally-closed (NC)	AC/DC	25	20	253	Fixed cable	2000	PVC	■
NBB4-F1-US	Flush	4	2-wire	2-wire	Normally-open (NO)	AC/DC	25	20	253	Fixed cable	2000	PVC	■
NBN8-F1-A0	Non-flush	8	4-wire	NPN	Complementary	DC	1400	10	30	Fixed cable	2000	PVC	
NBN8-F1-A0-V31	Non-flush	8	4-wire	NPN	Complementary	DC	1400	10	30	M8 connector plug			
NBN8-F1-A2	Non-flush	8	4-wire	PNP	Complementary	DC	1400	10	30	Fixed cable	2000	PVC	
NBN8-F1-A2-V31	Non-flush	8	4-wire	PNP	Complementary	DC	1400	10	30	M8 connector plug			
NBN8-F1-E0	Non-flush	8	3-wire	NPN	Normally-open (NO)	DC	1400	10	30	Fixed cable	2000	PVC	
NBN8-F1-E0-V3	Non-flush	8	3-wire	NPN	Normally-open (NO)	DC	1400	10	30	M8 connector plug			
NBN8-F1-E2	Non-flush	8	3-wire	PNP	Normally-open (NO)	DC	1400	10	30	Fixed cable	2000	PVC	
NBN8-F1-E2-V3	Non-flush	8	3-wire	PNP	Normally-open (NO)	DC	1400	10	30	M8 connector plug			
NBN8-F1-E3	Non-flush	8	3-wire	PNP	Normally-closed (NC)	DC	1400	10	30	Fixed cable	2000	PVC	
NBN8-F1-E3-V3	Non-flush	8	3-wire	PNP	Normally-closed (NC)	DC	1400	10	30	M8 connector plug			

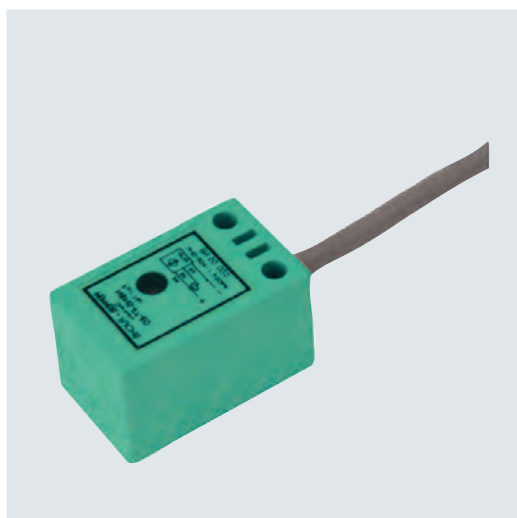


### Accessories

V3-WM-2M-PUR	Single-ended female cordset, M8, 3-pin, PUR cable
V31-GM-2M-PUR	Single-ended female cordset, M8, 4-pin, PUR cable
V31-WM-2M-PUR	Single-ended female cordset, M8, 4-pin, PUR cable



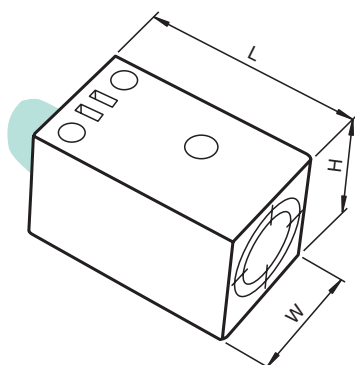
# F7 Series



Standard Technical Data	
Type of installation	Non-flush
Detection range	5 mm
Output type	3-wire
Switching function	Normally-open (NO)
Voltage type	DC
Switching frequency	500 Hz
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Connection type	Fixed cable
Cable material	PVC
Housing length L	28 mm
Housing width W	17 mm
Housing height H	17 mm
CSA	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Cable length [mm]
NBN5-F7-E0	NPN	2000
NBN5-F7-E0-5M	NPN	5000
NBN5-F7-E2	PNP	2000



# F76 Series

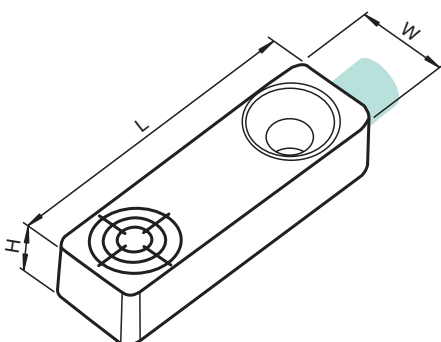


### Standard Technical Data

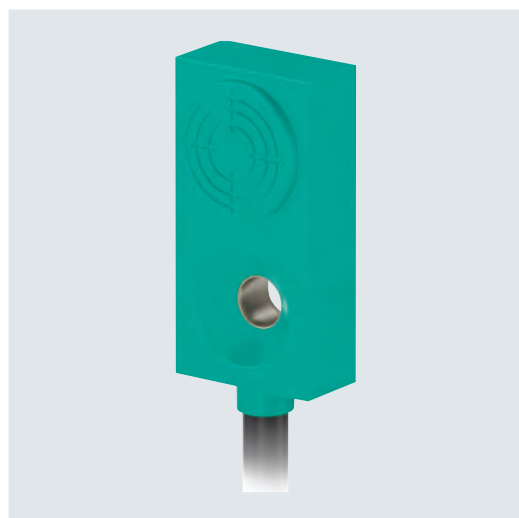
<b>Type of installation</b>	Flush
<b>Detection range</b>	2 mm
<b>Output type</b>	3-Wire
<b>Voltage type</b>	DC
<b>Switching frequency</b>	1500 Hz
<b>Operating voltage (min)</b>	10 V
<b>Operating voltage (max)</b>	30 V
<b>Connection type</b>	Fixed cable
<b>Cable Length</b>	5000 mm
<b>Cable material</b>	PVC
<b>Housing length L</b>	25 mm
<b>Housing width W</b>	8 mm
<b>Housing height H</b>	5.5 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Switching function
NBB2-F76-E0-0,5M	NPN	Normally-open (NO)
NBB2-F76-E1-0,5M	NPN	Normally-closed (NC)
NBB2-F76-E2-0,5M	PNP	Normally-open (NO)
NBB2-F76-E3-0,5M	PNP	Normally-closed (NC)



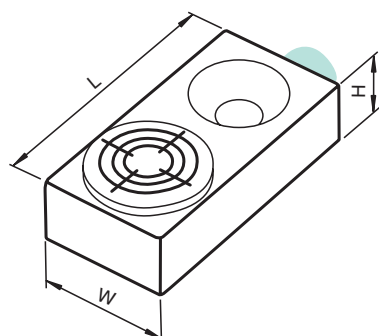
# F79 Series



Standard Technical Data	
Type of installation	Flush
Detection range	1.5 mm
Output type	3-wire
Voltage type	DC
Switching frequency	1200 Hz
Operating voltage (min)	5 V
Operating voltage (max)	30 V
Cable material	PVC
Housing length L	16 mm
Housing width W	8 mm
Housing height H	4.7 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Switching function	Connection type	Cable length [mm]	CSA	EAC	UL
NBB1,5-F79-E0	NPN	Normally-open (NO)	Stranded cable	500	■		■
NBB1,5-F79-E0-0,1M-V3	NPN	Normally-open (NO)	Fixed cable with M8 plug	100			
NBB1,5-F79-E0-0,5M	NPN	Normally-open (NO)	Fixed cable	500			
NBB1,5-F79-E0-5M	NPN	Normally-open (NO)	Fixed cable	5000			
NBB1,5-F79-E1	NPN	Normally-closed (NC)	Other		■		■
NBB1,5-F79-E1-0,1M-V3	NPN	Normally-closed (NC)	Fixed cable with M8 plug	100			
NBB1,5-F79-E1-0,5M	NPN	Normally-closed (NC)	Fixed cable	500			
NBB1,5-F79-E1-5M	NPN	Normally-closed (NC)	Fixed cable	5000			
NBB1,5-F79-E2	PNP	Normally-open (NO)	Stranded cable	500	■	■	■
NBB1,5-F79-E2-0,16M-V1	PNP	Normally-open (NO)	Fixed cable with M12 plug	160			
NBB1,5-F79-E2-0,1M-V3	PNP	Normally-open (NO)	Fixed cable with M8 plug	100			
NBB1,5-F79-E2-0,5M	PNP	Normally-open (NO)	Fixed cable	500			
NBB1,5-F79-E2-2M	PNP	Normally-open (NO)	Fixed cable	2000			■
NBB1,5-F79-E2-5M	PNP	Normally-open (NO)	Fixed cable	5000			
NBB1,5-F79-E3	PNP	Normally-closed (NC)	Stranded cable	500	■	■	■
NBB1,5-F79-E3-0,1M-V3	PNP	Normally-closed (NC)	Fixed cable with M8 plug	100			
NBB1,5-F79-E3-0,5M	PNP	Normally-closed (NC)	Fixed cable	500			
NBB1,5-F79-E3-5M	PNP	Normally-closed (NC)	Fixed cable	5000			



Accessories	
V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V3-WM-2M-PUR	Single-ended female cordset, M8, 3-pin, PUR cable

# F9 Series

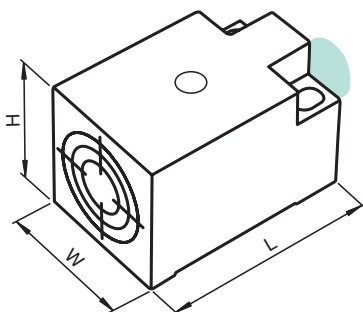


### Standard Technical Data

Type of installation	Flush
Detection range	5 mm
Output type	3-wire
Switching function	Normally-open (NO)
Voltage type	DC
Switching frequency	500 Hz
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Housing length L	38.5 mm
Housing width W	16 mm
Housing height H	16.5 mm
CSA	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Connection type	Cable length [mm]	Cable material
NBB5-F9-E0	NPN	Fixed cable	2000	PVC
NBB5-F9-E0-V3	NPN	8 mm connector plug		
NBB5-F9-E2	PNP	Fixed cable	2000	PVC
NBB5-F9-E2-V3	PNP	8 mm connector plug		



### Accessories

V3-WM-2M-PUR	Single-ended female cordset, M8, 3-pin, PUR cable
--------------	---



# F10 Series

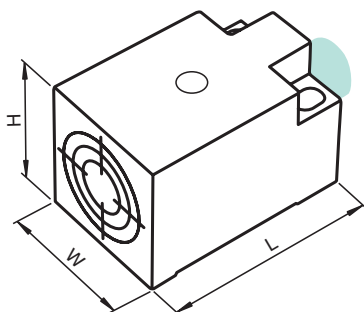


Standard Technical Data	
Output type	3-wire
Switching function	Normally-open (NO)
Voltage type	DC
Switching frequency	500 Hz
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Housing length L	38.5 mm
Housing width W	25 mm
Housing height H	25.5 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Connection type	Cable length [mm]	Cable material	EAC
NBB7-F10-E0	Flush	7	NPN	Fixed cable	2000	PVC	
NBB7-F10-E2	Flush	7	PNP	Fixed cable	2000	PVC	
NBN10-F10-E0	Non-flush	10	NPN	Fixed cable	2000	PVC	
NBN10-F10-E0-V1	Non-flush	10	NPN	M12 connector plug			
NBN10-F10-E2	Non-flush	10	PNP	Fixed cable	2000	PVC	■
NBN10-F10-E2-V1	Non-flush	10	PNP	M12 connector plug			

Accessories	
V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable



# F11 Series

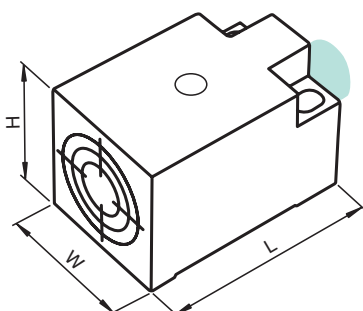


### Standard Technical Data

Type of installation	Non-flush
Detection range	15 mm
Output type	3-wire
Switching function	Normally-open (NO)
Voltage type	DC
Switching frequency	150 Hz
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Housing length L	38.5 mm
Housing width W	30 mm
Housing height H	30.5 mm
CSA	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

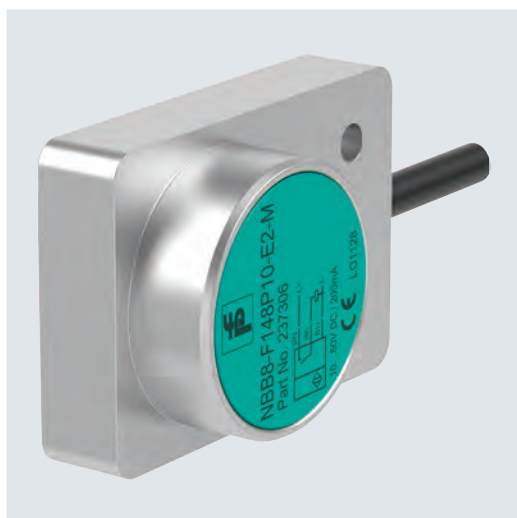
Model number	Output type	Connection type	Cable length [mm]	Cable material
NBN15-F11-E0	NPN	Fixed cable	2000	PVC
NBN15-F11-E0-V1	NPN	M12 connector plug		
NBN15-F11-E2	PNP	Fixed cable	2000	PVC
NBN15-F11-E2-V1	PNP	M12 connector plug		



### Accessories

V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable

# F148 Series

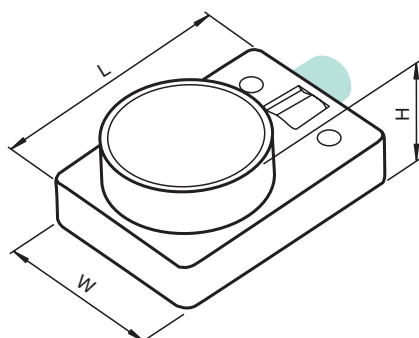


### Standard Technical Data

Type of installation	Flush
Voltage type	DC
Switching frequency	600 Hz
Operating voltage (min)	10 V
Cable material	PUR
Housing length L	50 mm
Housing width W	35 mm
Housing height H	20 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Detection range [mm]	Output type	Output type	Switching function	UB (max)	Connection type	Cable length [mm]	E1 type approval
NBB8-F148P10-E0-M	8	3-wire	NPN	Normally-open (NO)	60	Fixed cable	2000	■
NBB8-F148P10-E2-M	8	3-wire	PNP	Normally-open (NO)	60	Fixed cable	2000	■
NBB8-F148P10-E2-M-0,15M-3DT04	8	3-wire	PNP	Normally-open (NO)	60	Fixed cable with Deutsch plug	150	■
NBB15-F148P10-E0-M	15	3-wire	NPN	Normally-open (NO)	60	Fixed cable	2000	■
NBB15-F148P10-E2-M	15	3-wire	PNP	Normally-open (NO)	60	Fixed cable	2000	■
NBB15-F148P10-E2-M-0,15M-3DT04	15	3-wire	PNP	Normally-open (NO)	60	Fixed cable with Deutsch plug	150	■
NBB15-F148P10-ARO	15	Relay	Relay	Normally-closed (NC)	30	Fixed cable	2000	
NBB15-F148P10-ARS	15	Relay	Relay	Normally-open (NO)	30	Fixed cable	2000	





# V3 Series



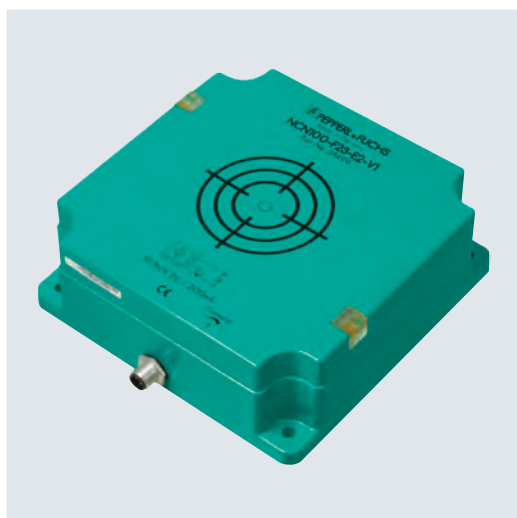
Standard Technical Data	
Voltage type	DC
Housing length L	16 mm
Housing width W	27.8 mm
Housing height H	10.2 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching Frequency [Hz]	UB (min)	UB (max)	Connection type	Cable length [mm]	Cable material	CCC	CSA	EAC	UL
NBB2-V3-E0	Flush	2	3-wire	NPN	Normally-open (NO)	1000	10	30	Fixed cable	130	PVC				
NBB2-V3-E0-V5	Flush	2	3-wire	NPN	Normally-open (NO)	1000	10	30	Faston connector plug						
NBB2-V3-E1-V5	Flush	2	3-wire	NPN	Normally-closed (NC)	1000	10	30	Faston connector plug						
NBB2-V3-E2	Flush	2	3-wire	PNP	Normally-open (NO)	1000	10	30	Fixed cable	130	PVC				
NBB2-V3-E2-10M	Flush	2	3-wire	PNP	Normally-open (NO)	1000	10	30	Fixed cable	10000	PVC				
NBB2-V3-E2-V3	Flush	2	3-wire	PNP	Normally-open (NO)	1000	10	30	M8 connector plug						
NBB2-V3-E2-V5	Flush	2	3-wire	PNP	Normally-open (NO)	1000	10	30	Faston connector plug						
NBB2-V3-E3	Flush	2	3-wire	PNP	Normally-closed (NC)	1000	10	30	Fixed cable	130	PVC				
NBB2-V3-E3-V3	Flush	2	3-wire	PNP	Normally-closed (NC)	1000	10	30	M8 connector plug						
NBB2-V3-E3-V5	Flush	2	3-wire	PNP	Normally-closed (NC)	1000	10	30	Faston connector plug						
NBB2-V3-Z4L	Flush	2	2-wire	2-wire	Normally-open (NO)	700	3.7	30	Fixed cable	130	PVC				
NBB3-V3-E0	Flush	3	3-wire	NPN	Normally-open (NO)	1000	10	30	Fixed cable	130	PVC				
NBB3-V3-E0-V3	Flush	3	3-wire	NPN	Normally-open (NO)	1000	10	30	M8 connector plug						
NBB3-V3-E1	Flush	3	3-wire	NPN	Normally-closed (NC)	1000	10	30	Fixed cable	130	PVC				
NBB3-V3-E1-V3	Flush	3	3-wire	NPN	Normally-closed (NC)	1000	10	30	M8 connector plug						
NBB3-V3-E2	Flush	3	3-wire	PNP	Normally-open (NO)	1000	10	30	Fixed cable	130	PVC				
NBB3-V3-E2-2M	Flush	3	3-wire	PNP	Normally-open (NO)	1000	10	30	Fixed cable	2000	PVC				
NBB3-V3-E2-V3	Flush	3	3-wire	PNP	Normally-open (NO)	1000	10	30	M8 connector plug						
NBB3-V3-E3	Flush	3	3-wire	PNP	Normally-closed (NC)	1000	10	30	Fixed cable	130	PVC				
NBB3-V3-E3-V3	Flush	3	3-wire	PNP	Normally-closed (NC)	1000	10	30	M8 connector plug						
NBB3-V3-Z4	Flush	3	2-wire	2-wire	Normally-open (NO)	2000	5	60	Fixed cable	130	PVC				
NBB3-V3-Z4-2M	Flush	3	2-wire	2-wire	Normally-open (NO)	2000	5	60	Fixed cable	2000	PVC				
NBB3-V3-Z4-V5	Flush	3	2-wire	2-wire	Normally-open (NO)	2000	5	60	Faston connector plug						
NBB3-V3-Z5	Flush	3	2-wire	2-wire	Normally-closed (NC)	2000	5	60	Fixed cable	130	PVC				
NBB3-V3-Z5-V5	Flush	3	2-wire	2-wire	Normally-closed (NC)	2000	5	60	Faston connector plug						
NBN4-V3-E0	Non-flush	4	3-wire	NPN	Normally-open (NO)	500	10	30	Fixed cable	130	PVC				
NBN4-V3-E2	Non-flush	4	3-wire	PNP	Normally-open (NO)	500	10	30	Fixed cable	130	PVC				
NBN6-V3-E0	Non-flush	6	3-wire	NPN	Normally-open (NO)	500	10	30	Fixed cable	130	PVC				
NBN6-V3-E0-V3	Non-flush	6	3-wire	NPN	Normally-open (NO)	1000	10	30	M8 connector plug						
NBN6-V3-E1	Non-flush	6	3-wire	NPN	Normally-closed (NC)	500	10	30	Fixed cable	130	PVC				
NBN6-V3-E1-V3	Non-flush	6	3-wire	NPN	Normally-closed (NC)	1000	10	30	M8 connector plug						
NBN6-V3-E2	Non-flush	6	3-wire	PNP	Normally-open (NO)	500	10	30	Fixed cable	130	PVC				
NBN6-V3-E2-V3	Non-flush	6	3-wire	PNP	Normally-open (NO)	1000	10	30	M8 connector plug						
NBN6-V3-E3	Non-flush	6	3-wire	PNP	Normally-closed (NC)	500	10	30	Fixed cable	130	PVC				
NBN6-V3-E3-V3	Non-flush	6	3-wire	PNP	Normally-closed (NC)	1000	10	30	M8 connector plug						



# F23 Series



### Standard Technical Data

Type of installation	Non-flush
Detection range	100 mm
Output type	3-wire
Output type	PNP
Switching function	Normally-open (NO)
Voltage type	DC
Switching frequency	10 Hz
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Connection type	M12 connector plug
Housing length L	177 mm
Housing width W	177 mm
Housing height H	60.5 mm
UL	■

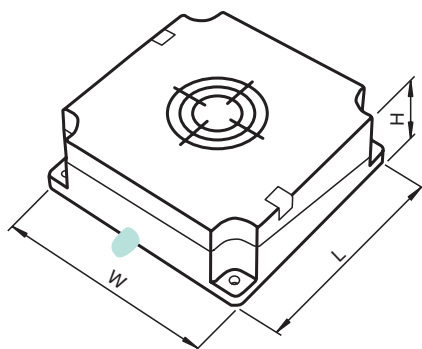
For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

### Model number

NCN100-F23-E2-V1

### Accessories

V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable



# F29 Series



### Standard Technical Data

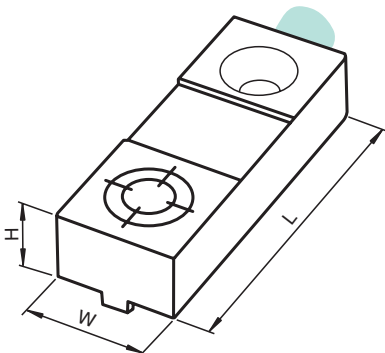
<b>Voltage type</b>	DC
<b>Switching frequency</b>	1000 Hz
<b>Operating voltage (min)</b>	4.75 V
<b>Operating voltage (max)</b>	30 V
<b>Cable material</b>	PVC
<b>Housing length L</b>	27 mm
<b>Housing width W</b>	10 mm
<b>Housing height H</b>	6 mm
<b>UL</b>	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Connection type	Cable length [mm]	CSA
NBB2-F29-A0	Flush	2	4-wire	NPN	Complementary	Fixed cable	2000	■
NBB2-F29-A2	Flush	2	4-wire	PNP	Complementary	Fixed cable	2000	■
NBB2-F29-E2-5M	Flush	2	3-wire	PNP	Normally-open (NO)	Fixed cable	5000	■
NBB2-F29-E3	Flush	2	3-wire	PNP	Normally-closed (NC)	Fixed cable	2000	■
NBN4-F29-A2	Non-flush	4	4-wire	PNP	Complementary	Fixed cable	2000	■
NBN4-F29-E0	Non-flush	4	3-wire	NPN	Normally-open (NO)	Fixed cable	2000	■
NBN4-F29-E0-5M	Non-flush	4	3-wire	NPN	Normally-open (NO)	Fixed cable	5000	■
NBN4-F29-E2	Non-flush	4	3-wire	PNP	Normally-open (NO)	Fixed cable	2000	■
NBN4-F29-E2-5M	Non-flush	4	3-wire	PNP	Normally-open (NO)	Fixed cable	5000	■
NBN4-F29-E3-0,5M-V3	Non-flush	4	3-wire	PNP	Normally-closed (NC)	Fixed cable with M8 plug	5000	■
NBN4-F29-E3-5M	Non-flush	4	3-wire	PNP	Normally-closed (NC)	Fixed cable	5000	■

### Accessories

V3-WM-2M-PUR	Single-ended female cordset, M8, 3-pin, PUR cable
--------------	---





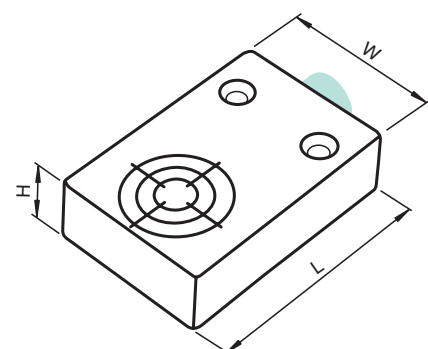
# F33/F33M Series



Standard Technical Data	
Type of installation	Flush
Voltage type	DC
Operating voltage (min)	10 V
Connection type	Fixed cable
Housing length L	10 mm
Housing width W	50 mm
Housing height H	25 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Detection range [mm]	Output type	Output type	Switching function	Switching Frequency [Hz]	UB (max)	Cable length [mm]	Cable material	CCC	CSA
NBB5-F33-A0	5	4-wire	NPN	Complementary	500	30	2000	PVC		■
NBB5-F33-A2	5	4-wire	PNP	Complementary	500	30	2000	PVC		■
NBB5-F33-A2-5M	5	4-wire	PNP	Complementary	500	30	5000	PVC		■
NBB5-F33-E0	5	3-wire	NPN	Normally-open (NO)	500	30	2000	PVC		■
NBB5-F33-E2	5	3-wire	PNP	Normally-open (NO)	500	30	2000	PVC		■
NBB5-F33M-A0	5	4-wire	NPN	Complementary	500	30	2000	PVC		■
NBB5-F33M-A2	5	4-wire	PNP	Complementary	500	30	2000	PVC		■
NBB5-F33M-E0	5	3-wire	NPN	Normally-open (NO)	500	30	2000	PVC		■
NBB5-F33M-E2	5	3-wire	PNP	Normally-open (NO)	500	30	2000	PVC		■
NBB5-F33M-E2-5M	5	3-wire	PNP	Normally-open (NO)	500	30	5000	PVC		■
NBB8-F33-E0	8	3-wire	NPN	Normally-open (NO)	350	60	2000	PVC	■	■
NBB8-F33-E1	8	3-wire	NPN	Normally-closed (NC)	350	60	2000	PVC	■	■
NBB8-F33-E2	8	3-wire	PNP	Normally-open (NO)	350	60	2000	PVC	■	■
NBB8-F33-E2-0,2M-V1	8	3-wire	PNP	Normally-open (NO)	350	30		PVC		
NBB8-F33-E3	8	3-wire	PNP	Normally-closed (NC)	350	60	2000	PVC	■	■
NBB8-F33-E3-0,2M-V1	8	3-wire	PNP	Normally-closed (NC)	350	30				



Accessories	
V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable

# F41/F41A Series



### Standard Technical Data

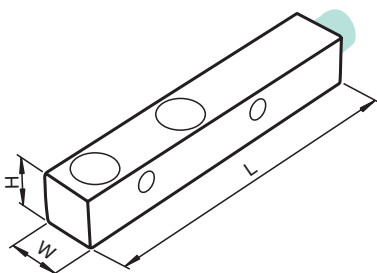
Output type	3-wire
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Housing width W	8 mm
Housing height H	8 mm
CSA	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Switching function	Switching frequency [Hz]	Connection type	Cable length [mm]	Cable material	Length L
NBB1,5-F41-E2	Flush	1.5	PNP	Normally-open (NO)	1500	Fixed cable	2000	PVC	40
NBB1,5-F41-E2-V3	Flush	1.5	PNP	Normally-open (NO)	1500	M8 connector plug			46
NBB1,5-F41-E3	Flush	1.5	PNP	Normally-closed (NC)	1500	Fixed cable	2000	PVC	40
NBB1,5-F41-E3-6M	Flush	1.5	PNP	Normally-closed (NC)	1500	Fixed cable	6000	PVC	40
NBB1,5-F41-E3-V3	Flush	1.5	PNP	Normally-closed (NC)	1500	M8 connector plug			46
NBB1,5-F41A-E2	Flush	1.5	PNP	Normally-open (NO)	1500	Fixed cable	2000	PVC	40
NBB1,5-F41A-E2-V3	Flush	1.5	PNP	Normally-open (NO)	1500	M8 connector plug			46
NBB1,5-F41A-E3	Flush	1.5	PNP	Normally-closed (NC)	1500	Fixed cable	2000	PVC	40
NBB1,5-F41A-E3-V3	Flush	1.5	PNP	Normally-closed (NC)	1500	M8 connector plug			46
NBB2-F41-E2-V3	Flush	2	PNP	Normally-open (NO)	3000	M8 connector plug			46
NEB3-F41-E0	Semi-flush	3	NPN	Normally-open (NO)	1000	Fixed cable	2000	PVC	40
NEB3-F41-E0-V3	Semi-flush	3	NPN	Normally-open (NO)	1000	M8 connector plug			50
NEB3-F41-E1	Semi-flush	3	NPN	Normally-closed (NC)	1000	Fixed cable	2000	PVC	40
NEB3-F41-E1-V3	Semi-flush	3	NPN	Normally-closed (NC)	1000	M8 connector plug			50
NEB3-F41-E2	Semi-flush	3	PNP	Normally-open (NO)	1000	Fixed cable	2000	PVC	40
NEB3-F41-E2-V3	Semi-flush	3	PNP	Normally-open (NO)	1000	M8 connector plug			50
NEB3-F41-E3	Semi-flush	3	PNP	Normally-closed (NC)	1000	Fixed cable	2000	PVC	40
NEB3-F41-E3-V3	Semi-flush	3	PNP	Normally-closed (NC)	1000	M8 connector plug			50

### Accessories

V3-WM-2M-PUR	Single-ended female cordset, M8, 3-pin, PUR cable
--------------	---





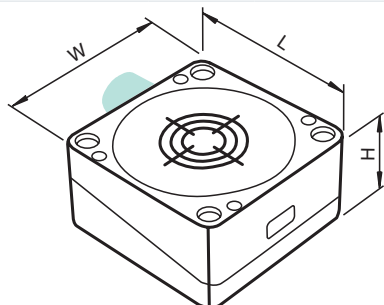
# FP Series



Standard Technical Data	
CSA	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Width W	Height H	CCC	EAC
NCB40-FP-A2-P1	Flush	40	4-wire	PNP	Complementary	DC	80	10	60	Terminal compartment	80	80	40	■	
NCB40-FP-A2-P1-V1	Flush	40	4-wire	PNP	Complementary	DC	80	10	60	M12 connector plug	80	80	40	■	
NCB40-FP-A2-P4-V1	Flush	40	4-wire	PNP	Complementary	DC	80	10	60	M12 connector plug	80	80	40	■	
NCB40-FP-W-P1	Flush	40	2-wire	2-wire	Normally open/close selectable	AC	20	20	253	Terminal compartment	80	80	40	■	
NCB40-FP-Z2-P1	Flush	40	2-wire	2-wire	Normally open/close selectable	DC	50	10	60	Terminal compartment	84	84	40	■	
NCB50-FP-A2-P1	Flush	50	4-wire	PNP	Complementary	DC	80	10	60	Terminal compartment	84	84	40	■	
NCB50-FP-A2-P1-V1	Flush	50	4-wire	PNP	Complementary	DC	80	10	60	M12 connector plug	84	84	40	■	
NCB50-FP-A2-P4-V1	Flush	50	4-wire	PNP	Complementary	DC	80	10	60	M12 connector plug	84	84	40		
NCB50-FP-E2-P1	Flush	50	3-wire	PNP	Normally-open (NO)	DC	80	10	60	Terminal compartment	84	84	40	■	■
NCB50-FP-E2-P1-V1	Flush	50	3-wire	PNP	Normally-open (NO)	DC	80	10	60	M12 connector plug	84	84	40	■	■
NCB50-FP-E2-P4	Flush	50	3-wire	PNP	Normally-open (NO)	DC	80	10	60	Terminal compartment	84	84	40	■	
NCB50-FP-E2-P4-V1	Flush	50	3-wire	PNP	Normally-open (NO)	DC	80	10	60	M12 connector plug	84	84	40	■	
NCB50-FP-Z2-P1	Flush	50	2-wire	2-wire	Normally open/close selectable	DC	80	10	60	Terminal compartment	84	84	40	■	
NCB50-FP-Z4-V1	Flush	50	2-wire	2-wire	Normally-open (NO)	DC	80	10	60	M12 connector plug	84	84	40	■	
NCB50-FP-Z5-V1	Flush	50	2-wire	2-wire	Normally-closed (NC)	DC	80	10	60	M12 connector plug	84	84	40		
NCN50-FP-A2-P1	Non-flush	50	4-wire	PNP	Complementary	DC	80	10	60	Terminal compartment	80	80	40	■	■
NCN50-FP-A2-P1-V1	Non-flush	50	4-wire	PNP	Complementary	DC	80	10	60	M12 connector plug	80	80	40	■	
NCN50-FP-A2-P4	Non-flush	50	4-wire	PNP	Complementary	DC	80	10	60	Terminal compartment	80	80	40	■	
NCN50-FP-W-P1	Non-flush	50	2-wire	2-wire	Normally open/close selectable	AC	20	20	253	Terminal compartment	80	80	40	■	
NCN50-FP-W-P4	Non-flush	50	2-wire	Two-wire	Normally open/close selectable	AC	20	20	253	Terminal compartment	80	80	40	■	
NCN50-FP-Z2-P1	Non-flush	50	2-wire	2-wire	Normally open/close selectable	DC	80	10	60	Terminal compartment	80	80	40	■	
NCN50-FP-Z2-P4	Non-flush	50	2-wire	2-wire	Normally open/close selectable	DC	80	10	60	Terminal compartment	40	80	80		
NCN50-FP-Z4-V1	Non-flush	50	2-wire	2-wire	Normally-open (NO)	DC	80	10	60	M12 connector plug	80	80	40	■	
NJ40P-FP-A2-P1	Non-flush	40	4-wire	PNP	Complementary	DC	150	10	30	Terminal compartment	80	80	40		
NJ50-FP-A-P1	Non-flush	50	4-wire	NPN	Complementary	DC	100	10	30	Terminal compartment	80	80	40		
NJ50-FP-E-P1	Non-flush	50	3-wire	NPN	Normally-open (NO)	DC	100	10	30	Terminal compartment	80	80	40		
NJ60-FP-E2-P2	Non-flush	60	3-wire	PNP	Normally-open (NO)	DC	20	10	30	Terminal compartment	80	80	40		



Accessories	
V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable

# FPS Series

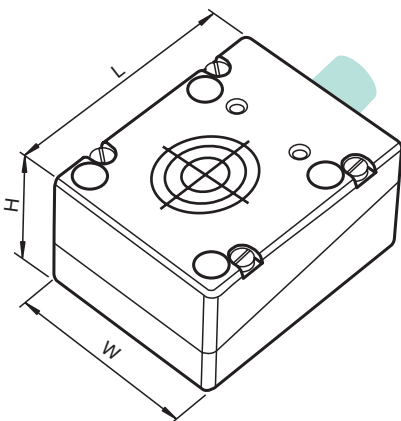


### Standard Technical Data

<b>Connection type</b>	Terminal compartment
<b>Housing length L</b>	77 mm
<b>Housing width W</b>	60 mm
<b>Housing height H</b>	41 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)
<b>NBB25-FPS-A2</b>	Flush	25	4-wire	PNP	Complementary	DC	70	10	30
<b>NBN30-FPS-A2</b>	Non-flush	30	4-wire	PNP	Complementary	DC	50	10	30
<b>NBN30-FPS-E5</b>	Non-flush	30	3-wire	PNP	Normally open/close selectable	DC	50	10	65
<b>NBN30-FPS-UU</b>	Non-flush	30	2-wire	2-wire	Normally open/close selectable	AC/DC	25	20	265





# VariKont L2/L3 Series



### Standard Technical Data

Housing width W	40 mm
Housing height H	40 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

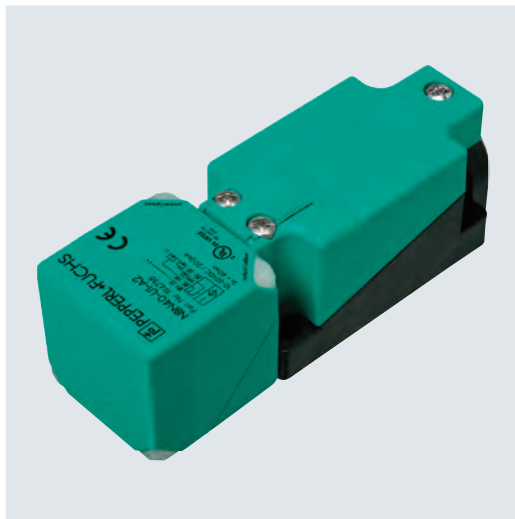
Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	CCC	CSA	EAC
NBB20-L2-A0-V1	Flush	20	4-wire	NPN	Complementary	DC	440	10	30	M12 connector plug	67			
NBB20-L2-A2-V1	Flush	20	4-wire	PNP	Complementary	DC	440	10	30	M12 connector plug	67			■
NBB20-L2-B3-V1	Flush	20	2-wire	AS-Interface	Normally open/close selectable	DC	150	26.5	31.9	M12 connector plug	67		■	
NBB20-L2-B3B-V1	Flush	20	2-wire	AS-Interface	Normally open/close selectable	DC	150	26.5	31.9	M12 connector plug	67		■	
NBB20-L2-E0-V1	Flush	20	3-wire	NPN	Normally-open (NO)	DC	440	10	30	M12 connector plug	67			
NBB20-L2-E2-V1	Flush	20	3-wire	PNP	Normally-open (NO)	DC	440	10	30	M12 connector plug	67			■
NBB20-L2-E3-V1	Flush	20	3-wire	PNP	Normally-closed (NC)	DC	440	10	30	M12 connector plug	67			
NBB20-L2-Z0-V1	Flush	20	2-wire	2-wire	Normally-open (NO)	DC	30	5	30	M12 connector plug	67			
NBB20-L2-Z4-V1	Flush	20	2-wire	2-wire	Normally-open (NO)	DC	30	3.8	30	M12 connector plug	67		■	
NBB20-L2-Z5-V1	Flush	20	2-wire	2-wire	Normally-closed (NC)	DC	30	3.8	30	M12 connector plug	67		■	
NBB20-L2M-A0-V1	Flush	20	4-wire	NPN	Complementary	DC	440	10	30	M12 connector plug	67			
NBB20-L2M-A2-V1	Flush	20	4-wire	PNP	Complementary	DC	440	10	30	M12 connector plug	67			■
NBB20-L2M-E0-V1	Flush	20	3-wire	NPN	Normally-open (NO)	DC	440	10	30	M12 connector plug	67			
NBB20-L2M-E2-V1	Flush	20	3-wire	PNP	Normally-open (NO)	DC	440	10	30	M12 connector plug	67			■
NBB20-L2M-E34-V1	Flush	20	3-wire	PNP	Normally-closed (NC)	DC	440	10	30	M12 connector plug	67			
NBB20-L3M-US-V12	Flush	20	2-wire	2-wire	Normally-open (NO)	AC/DC	30	20	300	1/2 inch connector plug	68	■	■	
NBB20-L3M-US-V93	Flush	20	2-wire	2-wire	Normally-open (NO)	AC/DC	30	20	300	7/8 inch connector plug	76	■	■	
NBN30-L2-A2-V1	Non-flush	30	4-wire	PNP	Complementary	DC	230	10	30	M12 connector plug	67			
NBN30-L2-B3B-V1	Non-flush	30	2-wire	AS-Interface	Normally open/close selectable	DC	100	26.5	31.9	M12 connector plug	67		■	
NBN30-L2-E2-V1	Non-flush	30	3-wire	PNP	Normally-open (NO)	DC	230	10	30	M12 connector plug	67			
NBN40-L2-A0-V1	Non-flush	40	4-wire	NPN	Complementary	DC	180	10	30	M12 connector plug	67			
NBN40-L2-A2-V1	Non-flush	40	4-wire	PNP	Complementary	DC	180	10	30	M12 connector plug	67			■
NBN40-L2-B3-V1	Non-flush	40	2-wire	AS-Interface	Normally open/close selectable	DC	50	26.5	31.9	M12 connector plug	67		■	
NBN40-L2-B3B-V1	Non-flush	40	2-wire	AS-Interface	Normally open/close selectable	DC	50	26.5	31.9	M12 connector plug	67		■	
NBN40-L2-E0-V1	Non-flush	40	3-wire	NPN	Normally-open (NO)	DC	180	10	30	M12 connector plug	67			■
NBN40-L2-E2-V1	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	180	10	30	M12 connector plug	67			■
NBN40-L2-E34-V1	Non-flush	40	3-wire	PNP	Normally-closed (NC)	DC	100	10	30	M12 connector plug	67			
NBN40-L2-Z0-V1	Non-flush	40	2-wire	2-wire	Normally-open (NO)	DC	30	5	30	M12 connector plug	67			
NBN40-L2-Z4-V1	Non-flush	40	2-wire	2-wire	Normally-open (NO)	DC	30	3.8	30	M12 connector plug	67			
NBN40-L2-Z5-V1	Non-flush	40	2-wire	2-wire	Normally-closed (NC)	DC	30	3.8	30	M12 connector plug	67			
NBN40-L2M-A0-V1	Non-flush	40	4-wire	NPN	Complementary	DC	180	10	30	M12 connector plug	67			
NBN40-L2M-A2-V1	Non-flush	40	4-wire	PNP	Complementary	DC	180	10	30	M12 connector plug	67			■
NBN40-L2M-E0-V1	Non-flush	40	3-wire	NPN	Normally-open (NO)	DC	180	10	30	M12 connector plug	67			
NBN40-L2M-E2-V1	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	180	10	30	M12 connector plug	67			
NBN40-L3M-A2-C3-V1	Non-flush	40	4-wire	PNP	Complementary	DC	5	10	30	M12 connector plug	67			
NBN40-L3M-US-V12	Non-flush	40	2-wire	2-wire	Normally-open (NO)	AC/DC	30	20	300	1/2 inch connector plug	68	■	■	
NRN40-L3K-A2-V1	Non-flush	40	4-wire	PNP	Complementary	DC	180	10	30	M12 connector plug	67			







# VariKont U1 Series



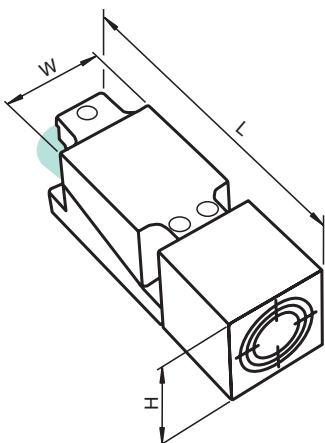
### Standard Technical Data

UL

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Width W	Height H	CCC	CSA	EAC
NBB15-U1-A0	Flush	15	4-wire	NPN	Complementary	DC	560	10	30	Terminal compartment	118	40	40			
NBB15-U1-A2	Flush	15	4-wire	PNP	Complementary	DC	560	10	30	Terminal compartment	118	40	40			■
NBB15-U1-A2-V1	Flush	15	4-wire	PNP	Complementary	DC	560	10	30	M12 connector plug	118	40	40			
NBB15-U1-E0	Flush	15	3-wire	NPN	Normally-open (NO)	DC	560	10	30	Terminal compartment	118	40	40			
NBB15-U1-E1	Flush	15	3-wire	NPN	Normally-closed (NC)	DC	560	10	30	Terminal compartment	118	40	40			
NBB15-U1-E2	Flush	15	3-wire	PNP	Normally-open (NO)	DC	560	10	30	Terminal compartment	118	40	40			■
NBB15-U1-E2-V1	Flush	15	3-wire	PNP	Normally-open (NO)	DC	560	10	30	M12 connector plug	118	40	40			
NBB15-U1-E3	Flush	15	3-wire	PNP	Normally-closed (NC)	DC	560	10	30	Terminal compartment	118	40	40			
NBB15-U1-Z2	Flush	15	2-wire	2-wire	Normally open/close selectable	DC	400	5	60	Terminal compartment	118	40	40	■		■
NJ15+U1+DW1-1	Flush	15	3-wire	PNP	Normally-open (NO)	DC	1	15	60	Terminal compartment	118	40	40	■	■	
NJ15+U1+DW1-10	Flush	15	3-wire	PNP	Normally-open (NO)	DC	10	15	60	Terminal compartment	118	40	40	■	■	
NJ15+U1+DW1-100	Flush	15	3-wire	PNP	Normally-open (NO)	DC	100	15	60	Terminal compartment	118	40	40	■	■	
NBB20-U1-A0	Flush	20	4-wire	NPN	Complementary	DC	440	10	30	Terminal compartment	118	40	40			
NBB20-U1-A2	Flush	20	4-wire	PNP	Complementary	DC	440	10	30	Terminal compartment	118	40	40			■
NBB20-U1-A2-V1	Flush	20	4-wire	PNP	Complementary	DC	440	10	30	M12 connector plug	118	40	40			
NBB20-U1-B3B	Flush	20	2-wire	AS-Interface	Normally open/close selectable	DC	150	26.5	31.9	Terminal compartment	118	40	40		■	
NBB20-U1-E0	Flush	20	3-wire	NPN	Normally-open (NO)	DC	440	10	30	Terminal compartment	118	40	40			
NBB20-U1-E1	Flush	20	3-wire	NPN	Normally-closed (NC)	DC	440	10	30	Terminal compartment	118	40	40			
NBB20-U1-E2	Flush	20	3-wire	PNP	Normally-open (NO)	DC	440	10	30	Terminal compartment	118	40	40			■
NBB20-U1-E2-V1	Flush	20	3-wire	PNP	Normally-open (NO)	DC	440	10	30	M12 connector plug	118	40	40			
NBB20-U1-E3	Flush	20	3-wire	PNP	Normally-closed (NC)	DC	440	10	30	Terminal compartment	118	40	40			
NBB20-U1-UU	Flush	20	2-wire	2-wire	Normally open/close selectable	AC/DC	100	20	300	Terminal compartment	118	40	40	■		
NBB20-U1-Z2	Flush	20	2-wire	2-wire	Normally open/close selectable	DC	250	5	60	Terminal compartment	118	40	40	■		■
NJ20P+U1+A2	Non-flush	20	4-wire	PNP	Complementary	DC	200	10	30	Terminal compartment	118	40	40		■	
NBN30-U1-A0	Non-flush	30	4-wire	NPN	Complementary	DC	230	10	30	Terminal compartment	118	40	40			
NBN30-U1-A2	Non-flush	30	4-wire	PNP	Complementary	DC	230	10	30	Terminal compartment	118	40	40			■
NBN30-U1-A2-V1	Non-flush	30	4-wire	PNP	Complementary	DC	230	10	30	M12 connector plug	118	40	40			
NBN30-U1-E0	Non-flush	30	3-wire	NPN	Normally-open (NO)	DC	230	10	30	Terminal compartment	118	40	40			
NBN30-U1-E1	Non-flush	30	3-wire	NPN	Normally-closed (NC)	DC	230	10	30	Terminal compartment	118	40	40			
NBN30-U1-E2	Non-flush	30	3-wire	PNP	Normally-open (NO)	DC	230	10	30	Terminal compartment	118	40	40			
NBN30-U1-E2-V1	Non-flush	30	3-wire	PNP	Normally-open (NO)	DC	230	10	30	M12 connector plug	118	40	40			
NBN30-U1-E3	Non-flush	30	3-wire	PNP	Normally-closed (NC)	DC	230	10	30	Terminal compartment	118	40	40			
NBN30-U1-Z2	Non-flush	30	2-wire	2-wire	Normally open/close selectable	DC	150	5	60	Terminal compartment	118	40	40	■		
NJ30P+U1+A2	Non-flush	30	4-wire	PNP	Complementary	DC	150	10	30	Terminal compartment	128	55	55		■	
NJ30+U1+DW1-1	Non-flush	30	3-wire	PNP	Normally-open (NO)	DC	1	15	60	Terminal compartment	118	40	40		■	
NJ30+U1+DW1-10	Non-flush	30	3-wire	PNP	Normally-open (NO)	DC	10	15	60	Terminal compartment	118	40	40		■	
NBN40-U1-A0	Non-flush	40	4-wire	NPN	Complementary	DC	180	10	30	Terminal compartment	118	40	40			
NBN40-U1-A2	Non-flush	40	4-wire	PNP	Complementary	DC	180	10	30	Terminal compartment	118	40	40			■

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Width W	Height H	CCC	CSA	EAC
NBN40-U1-A2-V1	Non-flush	40	4-wire	PNP	Complementary	DC	180	10	30	M12 connector plug	118	40	40			
NBN40-U1-B3B	Non-flush	40	2-wire	AS-Interface	Normally open/close selectable	DC	150	26.5	31.9	Terminal compartment	118	40	40		■	
NBN40-U1-E0	Non-flush	40	3-wire	NPN	Normally-open (NO)	DC	180	10	30	Terminal compartment	118	40	40			
NBN40-U1-E1	Non-flush	40	3-wire	NPN	Normally-closed (NC)	DC	180	10	30	Terminal compartment	118	40	40			
NBN40-U1-E1-V1	Non-flush	40	3-wire	NPN	Normally-closed (NC)	DC	180	10	30	M12 connector plug	118	40	40			
NBN40-U1-E2	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	180	10	30	Terminal compartment	118	40	40			■
NBN40-U1-E2-V1	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	180	10	30	M12 connector plug	118	40	40			
NBN40-U1-E3	Non-flush	40	3-wire	PNP	Normally-closed (NC)	DC	180	10	30	Terminal compartment	118	40	40			
NBN40-U1-UU	Non-flush	40	2-wire	2-wire	Normally open/close selectable	AC/DC	100	20	300	Terminal compartment	118	40	40	■		
NBN40-U1-Z2	Non-flush	40	2-wire	2-wire	Normally open/close selectable	DC	100	5	60	Terminal compartment	118	40	40	■		
NBN40-U1L-A0	Non-flush	40	4-wire	NPN	Complementary	DC	100	10	30	Terminal compartment	128	55	55			
NBN40-U1L-A2	Non-flush	40	4-wire	PNP	Complementary	DC	100	10	30	Terminal compartment	128	55	55			
NBN40-U1L-A2-V1	Non-flush	40	4-wire	PNP	Complementary	DC	100	10	30	M12 connector plug	128	55	55			
NBN40-U1L-E2	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	100	10	30	Terminal compartment	128	55	55			
NBN40-U1L-UU	Non-flush	40	2-wire	2-wire	Normally open/close selectable	AC/DC	25	20	300	Terminal compartment	128	55	55			
NBN40-U1L-Z2	Non-flush	40	2-wire	Two-wire	Normally open/close selectable	DC	100	5	60	Terminal compartment	128	55	55		■	
NJ40+U1+E	Non-flush	40	3-wire	NPN	Normally-open (NO)	DC	100	10	60	Terminal compartment	128	55	55	■	■	
NJ40+U1+E2	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	100	10	60	Terminal compartment	128	55	55	■	■	■
NJ40+U1+E2-V1	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	100	10	60	M12 connector plug	128	55	55	■	■	



#### Accessories

MH 04-2681F	Mounting aid for VariKont, +U1+, and +U9* sensors
MHW 01	Modular mounting bracket
V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-M20-80	Receptacle, M12/M20; plastic version
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable



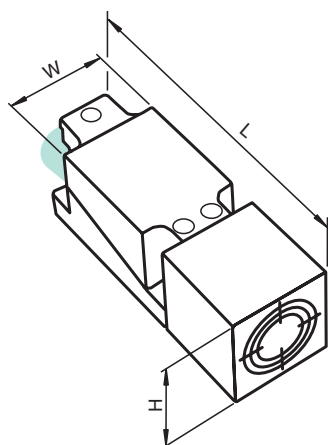
# VariKont U2 Series



Standard Technical Data	
Connection type	Terminal compartment
Housing length L	118 mm
Housing width W	40 mm
Housing height H	40 mm
UL	■

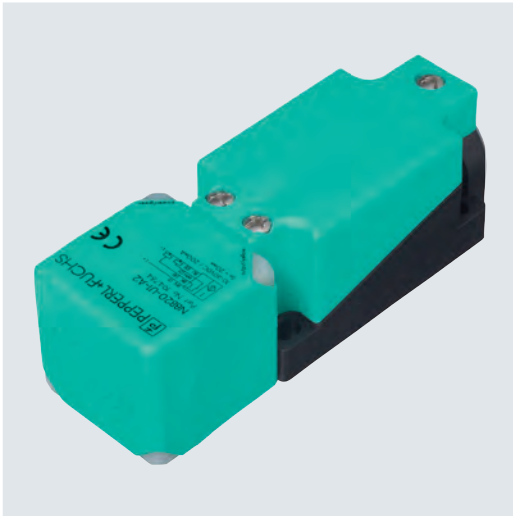
For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	CCC
NBB15-U2-A0	Flush	15	4-wire	NPN	Complementary	DC	560	10	30	
NBB20-U2-A0	Flush	20	4-wire	NPN	Complementary	DC	440	10	30	
NBB20-U2-A2	Flush	20	4-wire	PNP	Complementary	DC	440	10	30	
NBB20-U2-E0	Flush	20	3-wire	NPN	Normally-open (NO)	DC	440	10	30	
NBB20-U2-E2	Flush	20	3-wire	PNP	Normally-open (NO)	DC	440	10	30	
NBB20-U2-UU	Flush	20	2-wire	2-wire	Normally open/close selectable	AC/DC	100	20	300	■
NBN30-U2-A2	Non-flush	30	4-wire	PNP	Complementary	DC	150	10	30	
NBN40-U2-A2	Non-flush	40	4-wire	PNP	Complementary	DC	180	10	30	
NBN40-U2-E2	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	180	10	30	
NBN40-U2-UU	Non-flush	40	2-wire	2-wire	Normally open/close selectable	AC/DC	100	20	300	■



Accessories	
MH 04-2681F	Mounting aid for VariKont, +U1+, and +U9* sensors
MHW 01	Modular mounting bracket

# VariKont U3 Series

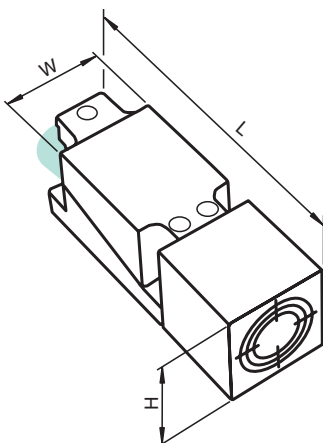


### Standard Technical Data

<b>Connection type</b>	Terminal compartment
<b>Housing length L</b>	118 mm
<b>Housing width W</b>	40 mm
<b>Housing height H</b>	40 mm
<b>UL</b>	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	CCC
<b>NBB20-U3-UU</b>	Flush	20	2-wire	2-wire	Normally open/close selectable	AC/DC	100	20	300	■
<b>NBB20-U3-A2</b>	Flush	20	4-wire	PNP	Complementary	DC	440	10	30	
<b>NBN40-U3-UU</b>	Non-flush	40	2-wire	2-wire	Normally open/close selectable	AC/DC	100	20	300	■



### Accessories

<b>MHW 01</b>	Modular mounting bracket
---------------	--------------------------

# VariKont U4 Series



## Standard Technical Data

UL

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Width W	Height H	CCC	CSA
NBB15-U4-A0	Flush	15	4-wire	NPN	Complementary	DC	560	10	30	Terminal compartment	118	40	40		
NBB15-U4-A2	Flush	15	4-wire	PNP	Complementary	DC	560	10	30	Terminal compartment	118	40	40		
NBB15-U4-A2-V1	Flush	15	4-wire	PNP	Complementary	DC	560	10	30	M12 connector plug	118	40	40		
NBB15-U4-E0	Flush	15	3-wire	NPN	Normally-open (NO)	DC	560	10	30	Terminal compartment	118	40	40		
NBB15-U4-E2	Flush	15	3-wire	PNP	Normally-open (NO)	DC	560	10	30	Terminal compartment	118	40	40		
NBB15-U4-E2-V1	Flush	15	3-wire	PNP	Normally-open (NO)	DC	560	10	30	M12 connector plug	118	40	40		
NBB15-U4-Z2	Flush	15	2-wire	2-wire	Normally open/close selectable	DC	400	5	60	Terminal compartment	118	40	40	■	
NBB20-U4-A0	Flush	20	4-wire	NPN	Complementary	DC	440	10	30	Terminal compartment	118	40	40		
NBB20-U4-A2	Flush	20	4-wire	PNP	Complementary	DC	440	10	30	Terminal compartment	118	40	40		
NBB20-U4-A2-V1	Flush	20	4-wire	PNP	Complementary	DC	440	10	30	M12 connector plug	118	40	40		
NBB20-U4-E0	Flush	20	3-wire	NPN	Normally-open (NO)	DC	440	10	30	Terminal compartment	118	40	40		
NBB20-U4-E2	Flush	20	3-wire	PNP	Normally-open (NO)	DC	440	10	30	Terminal compartment	118	40	40		
NBB20-U4-E2-V1	Flush	20	3-wire	PNP	Normally-open (NO)	DC	440	10	30	M12 connector plug	118	40	40	■	
NBB20-U4-UU	Flush	20	2-wire	2-wire	Normally open/close selectable	AC/DC	100	20	300	Terminal compartment	118	40	40	■	
NBB20-U4-Z2	Flush	20	2-wire	2-wire	Normally open/close selectable	DC	250	5	60	Terminal compartment	118	40	40	■	
NBN30-U4-A2	Non-flush	30	4-wire	PNP	Complementary	DC	150	10	30		118	40	40		
NBN30-U4-A2-V1	Non-flush	30	4-wire	PNP	Complementary	DC	150	10	30	M12 connector plug	118	40	40		
NBN30-U4-E0	Non-flush	30	3-wire	NPN	Normally-open (NO)	DC	230	10	30	Terminal compartment	118	40	40		
NBN30-U4-E2	Non-flush	30	3-wire	PNP	Normally-open (NO)	DC	230	10	30	Terminal compartment	118	40	40		
NBN30-U4-E2-V1	Non-flush	30	3-wire	PNP	Normally-open (NO)	DC	230	10	30	M12 connector plug	118	40	40		
NBN40-U4-A2	Non-flush	40	4-wire	PNP	Complementary	DC	180	10	30	Terminal compartment	118	40	40		
NBN40-U4-A2-V1	Non-flush	40	4-wire	PNP	Complementary	DC	180	10	30	M12 connector plug	118	40	40		
NBN40-U4-E0	Non-flush	40	3-wire	NPN	Normally-open (NO)	DC	180	10	30	Terminal compartment	118	40	40		
NBN40-U4-E2	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	180	10	30	Terminal compartment	118	40	40		
NBN40-U4-E2-V1	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	180	10	30	M12 connector plug	118	40	40		
NBN40-U4-UU	Non-flush	40	2-wire	2-wire	Normally open/close selectable	AC/DC	100	20	300	Terminal compartment	118	40	40	■	
NBN40-U4-Z2	Non-flush	40	2-wire	2-wire	Normally open/close selectable	DC	100	5	60	Terminal compartment	118	40	40	■	
NBN40-U4-Z2-V1	Non-flush	40	2-wire	2-wire	Normally open/close selectable	DC	100	5	60	M12 connector plug	118	40	40	■	
NBN40-U4L-A2	Non-flush	40	4-wire	PNP	Complementary	DC	100	10	30	Terminal compartment	128	55	55		
NBN40-U4L-A2-V1	Non-flush	40	4-wire	PNP	Complementary	DC	100	10	30	M12 connector plug	128	55	55		
NBN40-U4L-UU	Non-flush	40	2-wire	2-wire	Normally open/close selectable	AC/DC	25	20	300	Terminal compartment	128	55	55		
NBN40-U4L-Z2	Non-flush	40	2-wire	2-wire	Normally open/close selectable	DC	100	5	60	Terminal compartment	128	55	55	■	
NJ40+U4+A	Non-flush	40	4-wire	NPN	Complementary	DC	100	10	60	Terminal compartment	128	55	55	■	■
NJ40+U4+E	Non-flush	40	3-wire	NPN	Normally-open (NO)	DC	100	10	60	Terminal compartment	128	55	55	■	■

# VariKont U10 Series

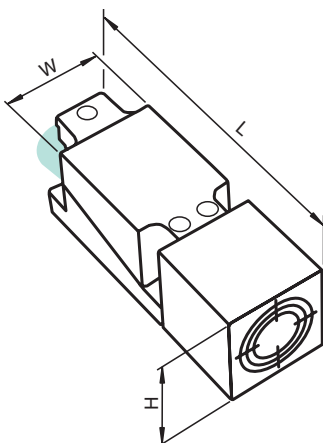


## Standard Technical Data

Output type	PNP
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Connection type	Terminal compartment
Housing length L	118 mm
Housing width W	40 mm
Housing height H	40 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Switching function	Switching frequency [Hz]
NBB15-U10-A2	Flush	15	4-wire	Complementary	560
NBB15-U10-E2	Flush	15	3-wire	Normally-open (NO)	560
NBB20-U10-A2	Flush	20	4-wire	Complementary	440
NBB20-U10-E2	Flush	20	3-wire	Normally-open (NO)	440
NBN30-U10-E2	Non-flush	30	3-wire	Normally-open (NO)	230
NBN40-U10-E2	Non-flush	40	3-wire	Normally-open (NO)	180

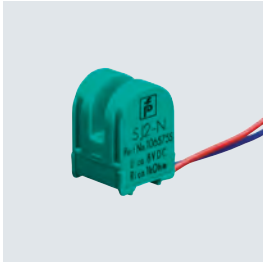


## Accessories

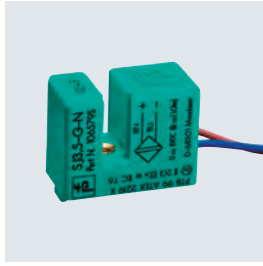
MH 04-2681F	Mounting aid for VariKont, +U1+, and +U9+ sensors
MHW 01	Modular mounting bracket
V1-M20-80	Receptacle, M12/M20; plastic version

# Slotted Inductive Proximity Sensors

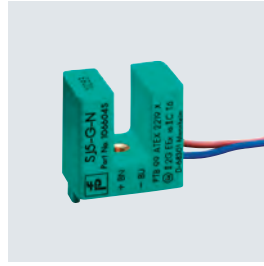
## Contents



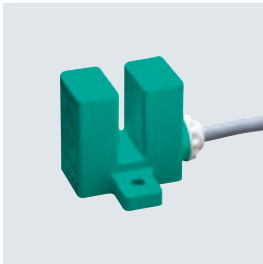
**Slot Width 2 mm**  
Page 71



**Slot Width 3.5 mm**  
Page 72



**Slot Width 5 mm**  
Page 73



**Slot Width 10 mm**  
Page 74

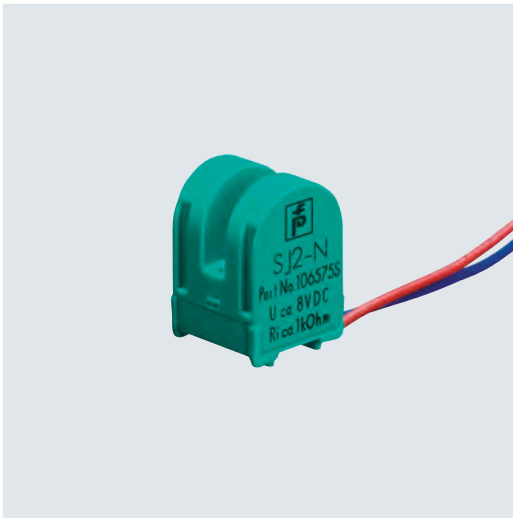


**Slot Width 15 mm**  
Page 75



**Slot Width 30 mm**  
Page 76

# Slot Width 2 mm

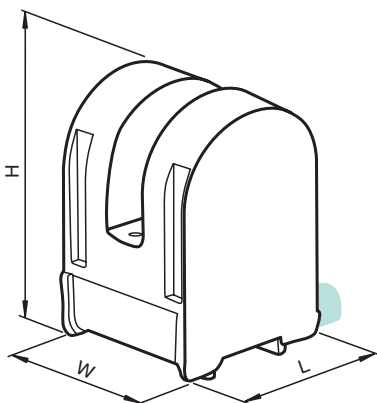


### Standard Technical Data

Detection range	2 mm
Voltage type	DC
Cable length	500 mm
Housing length L	8 mm
UL	■

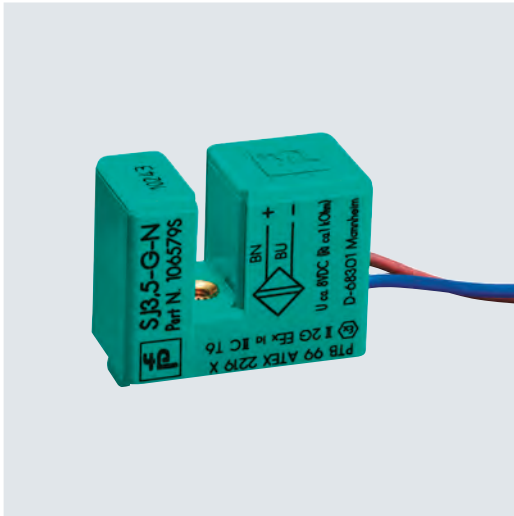
For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	SIL	Connection type	Cable material	Width W	Height H	ATEX	CSA	EAC	FM
<b>SJ2-N</b>	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2	2	Stranded cable		8	12	■	■	■	■
<b>SB2-Z0 GELB</b>		2-wire	Normally-open (NO)	2000	5	30		Stranded cable		15	13		■		
<b>SC2-N0-GN</b>	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Fixed cable	PVC	15	13	■	■		
<b>SC2-N0-YE</b>	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2	2	Stranded cable	PVC	15	13	■	■		
<b>SJ2-SN</b>	2-wire	NAMUR with safety function	Normally-closed (NC)	5000	8.2	8.2	3	Stranded cable		15	13	■		■	■





# Slot Width 3.5 mm

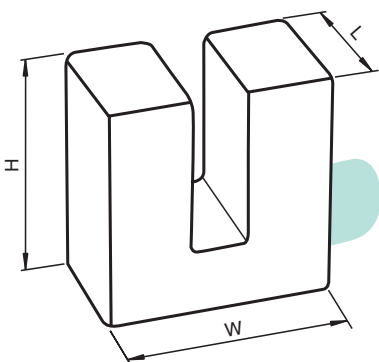


### Standard Technical Data

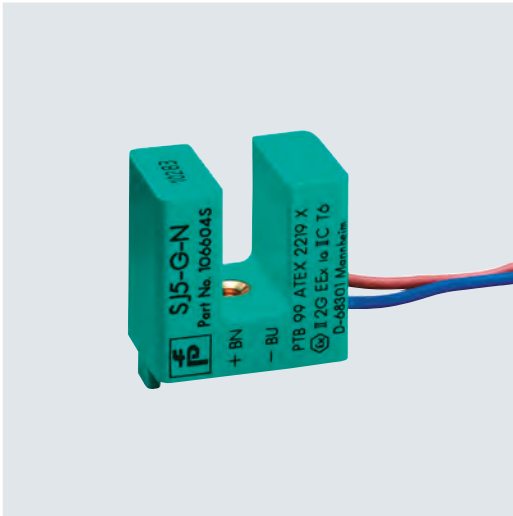
Detection range	3.5 mm
Voltage type	DC
Housing width W	10 mm
Housing height H	15 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	SIL	Connection type	Cable length [mm]	Cable material	Length L	ATEX	CSA	EAC	FM
SJ3,5-S1N	2-wire	NAMUR with safety function	Normally-open (NO)	2500	8.2	8.2	3	Stranded cable	500		19.5	■		■	■
SJ3,5-SN	2-wire	NAMUR with safety function	Normally-closed (NC)	3000	8.2	8.2	3	Stranded cable	500		19.5	■		■	■
SB3,5-A2	3-wire	PNP	Complementary	3000	10	30		Fixed cable	500	PVC	19		■		
SB3,5-E2	3-wire	PNP	Normally-open (NO)	3000	10	30		Stranded cable	500		19.5		■		
SB3,5-E2-BU	3-wire	PNP	Normally-open (NO)	3000	10	30		Stranded cable	500		19.5		■		
SB3,5-G-E2	3-wire	PNP	Normally-open (NO)	2000	10	30		Stranded cable	5000	PVC	19.5		■		
SB3,5-G-E2-2M	3-wire	PNP	Normally-open (NO)	2000	10	30		Fixed cable	2000	PVC	19.5		■		
SC3,5-G-N0	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	Stranded cable	5000	PVC	19.5	■	■	■	
SC3,5-N0-BU	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	Stranded cable	500		19.5	■	■		
SC3,5-N0-WH	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	Stranded cable	500		19.5	■	■	■	
SC3,5-N0-YE	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	Stranded cable	500	PVC	19.5	■	■	■	■
SJ3,5-G-N	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2		Stranded cable	500		19.5	■	■		
SJ3,5-H	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2		Stranded cable	500	PVC	19.5	■	■		■
SJ3,5-N	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2		Stranded cable	500		19.5	■	■	■	■
SJ3,5-N LED	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2		Stranded cable	500		19.5	■	■		
SJ3,5-N-BU	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2		Stranded cable	500		19.5	■	■		
SJ3,5-N-GN	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2		Stranded cable	500		19.5	■	■		
SJ3,5-N-YE	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2		Stranded cable	500		19.5	■	■		



## Slot Width 5 mm

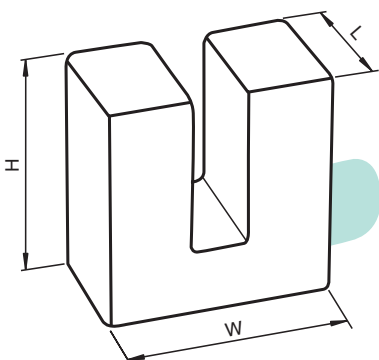


### Standard Technical Data

Detection range	5 mm
Output type	2-wire
Output type	NAMUR
Switching function	Normally-closed (NC)
Voltage type	DC
Switching frequency	2000 Hz
Operating voltage (min)	8.2 V
Operating voltage (max)	8.2 V
ATEX	■
CSA	■
UL	■

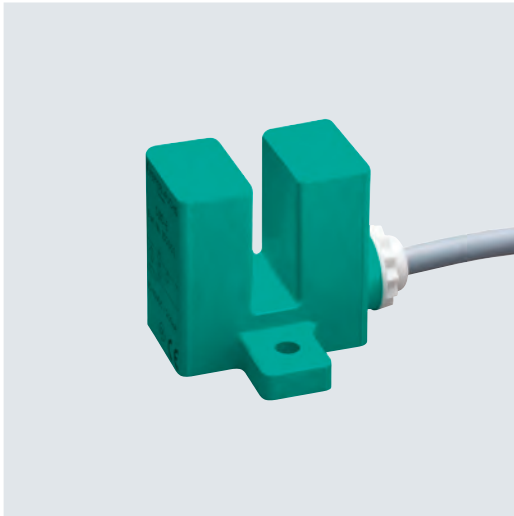
For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	SIL	Connection type	Cable length [mm]	Cable material	Length L	Width W	Height H	EAC	FM
SJ5-N	2	Stranded cable	500		15	10	15	■	■
SJ5-G-N		Stranded cable	500		15	10	15		
SJ5-K-N		Fixed cable	2000	PVC	29	32	31		■





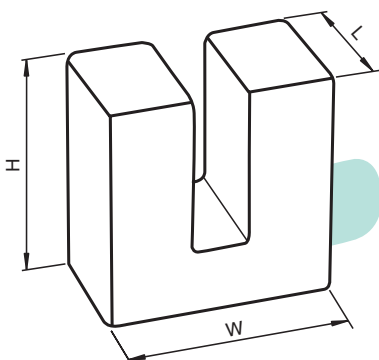
## Slot Width 10 mm



Standard Technical Data	
Detection range	10 mm
Voltage type	DC
Switching frequency	1000 Hz
Connection type	Fixed cable
Cable material	PVC
Housing length L	44 mm
Housing width W	55 mm
Housing height H	45 mm
CSA	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Output type	Switching function	UB (min)	UB (max)	Cable length [mm]	ATEX	FM
SJ10-N	2-wire	NAMUR	Normally-closed (NC)	8.2	8.2	2000	■	■
SJ10-N-5M	2-wire	NAMUR	Normally-closed (NC)	8.2	8.2	5000	■	
SJ10-E	3-wire	NPN	Normally-open (NO)	10	30	2000		
SJ10-E2	3-wire	PNP	Normally-open (NO)	10	30	2000		



## Slot Width 15 mm

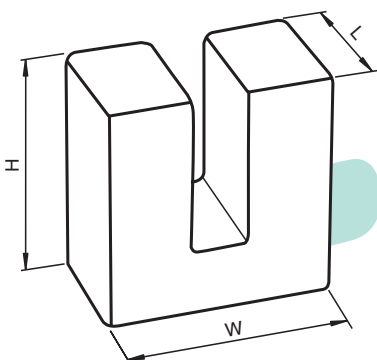


### Standard Technical Data

Detection range	15 mm
Housing length L	48 mm
Housing width W	30 mm
Housing height H	60 mm
CSA	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Cable length [mm]	Cable material	CCC
SJ15-WO	2-wire	2-wire	Normally-closed (NC)	AC	25	20	253	Fixed cable	2000	PVC	■
SJ15-WS	2-wire	2-wire	Normally-open (NO)	AC	25	20	253	Fixed cable	2000	PVC	■
SJ15-A	4-wire	NPN	Complementary	DC	500	10	30	Fixed cable	2000	PVC	
SJ15-A-5M	4-wire	NPN	Complementary	DC	500	10	30	Fixed cable	5000	PVC	
SJ15-A2	4-wire	PNP	Complementary	DC	500	10	30	Fixed cable	2000	PVC	
SJ15-A2-V1	4-wire	PNP	Complementary	DC	500	10	30	M12 connector plug			
SJ15-E	3-wire	NPN	Normally-open (NO)	DC	500	10	30	Fixed cable	2000	PVC	
SJ15-E2	3-wire	PNP	Normally-open (NO)	DC	500	10	30	Fixed cable	2000	PVC	



### Accessories

V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable



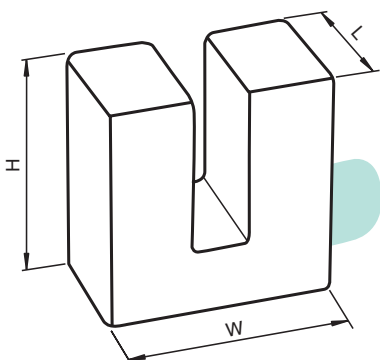
# Slot Width 30 mm



Standard Technical Data	
Detection range	30 mm
Voltage type	DC
Switching frequency	150 Hz
Connection type	Fixed cable
Cable length	2000 mm
Cable material	PVC
Housing length L	84 mm
Housing width W	51 mm
Housing height H	110 mm
CSA	■
UL	■

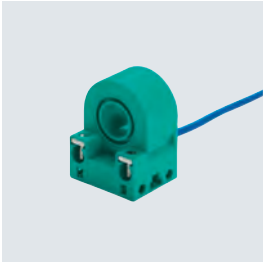
For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Output type	Switching function	UB (min)	UB (max)	ATEX	FM
SJ30-N	2-wire	NAMUR	Normally-closed (NC)	8.2	8.2	■	■
SJ30-A	4-wire	NPN	Complementary	10	30		
SJ30-A2	4-wire	PNP	Complementary	10	30		

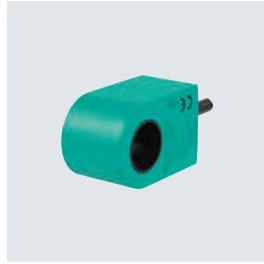


# Ring-Shaped Inductive Proximity Sensors

## Contents



**Ring Diameter 10 mm**  
Page 78



**Ring Diameter 15 mm**  
Page 79



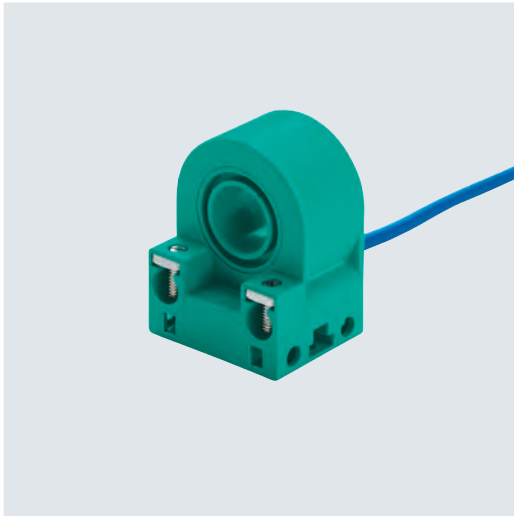
**Ring Diameter 21 mm**  
Page 80



**Ring Diameter 43 mm**  
Page 81



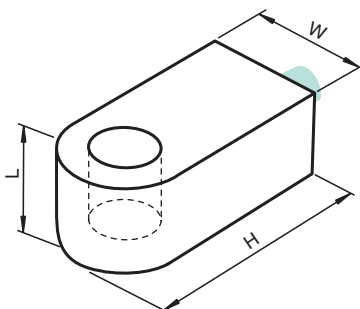
# Ring Diameter 10 mm



Standard Technical Data	
Detection range	10 mm
Output type	2-wire
Output type	NAMUR
Switching function	Normally-closed (NC)
Voltage type	DC
Operating voltage (min)	8.2 V
Operating voltage (max)	8.2 V
Connection type	Fixed cable
Cable length	2000 mm
Cable material	PVC
Housing length L	20 mm
Housing width W	25 mm
Housing height H	32.5 mm
ATEX	■
CSA	■
FM	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Switching frequency [Hz]
RC10-14-N0	2000
RC10-14-N3	





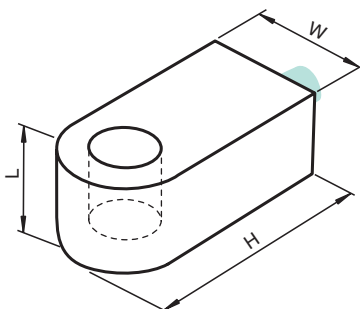
# Ring Diameter 15 mm



Standard Technical Data	
Special features	Ex sensor
Detection range	15 mm
Output type	2-wire
Output type	NAMUR
Switching function	Normally-closed (NC)
Voltage type	DC
Operating voltage (min)	8.2 V
Operating voltage (max)	8.2 V
Connection type	Fixed cable
Cable material	PVC
ATEX	■
CSA	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

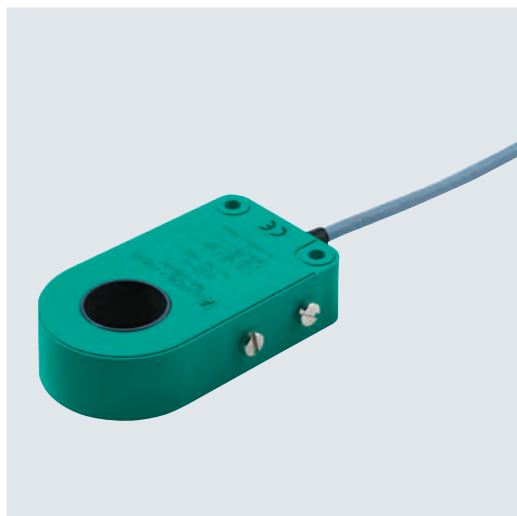
Model number	Switching frequency [Hz]	Cable length [mm]	Ambient temperature (min)	Ambient temperature (max)	Length L	Width W	Height H	FM	ATEX
RC15-14-N0	1500	2000	-20	65	20	25	32.5	■	■
RC15-14-N3		2000	-20	70	20	25	32.5	■	■
RJ15-14-N	1500	2000	-25	70	20	25	32.5		
RJ15-14-N-5M	1500	5000	-25	70	20	25	32.5		
RJ15-N	1500	2000	-25	70	25	29	45	■	







# Ring Diameter 21 mm

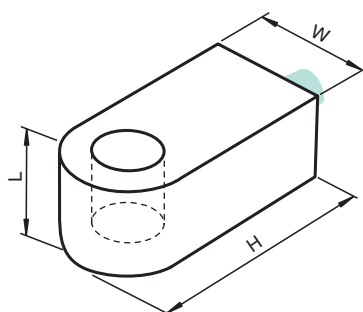


Standard Technical Data	
Detection range	21 mm
Output type	3-wire
Output type	PNP
Switching function	Normally-open (NO)
Voltage type	DC
Switching frequency	1000 Hz
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Cable material	PVC
Housing length L	20 mm
Housing width W	45 mm
Housing height H	80 mm
CSA	■
UL	■

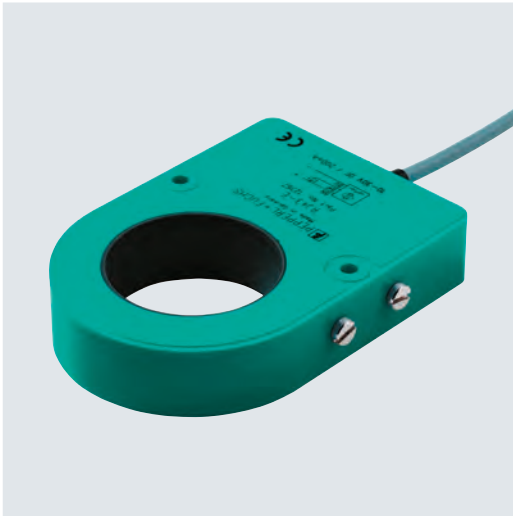
For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Connection type	Cable length [mm]
RJ21-E2	Fixed cable	2000
RJ21-E2-0,1M-V1	Fixed cable with M12 plug	100

Accessories	
V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable



# Ring Diameter 43 mm



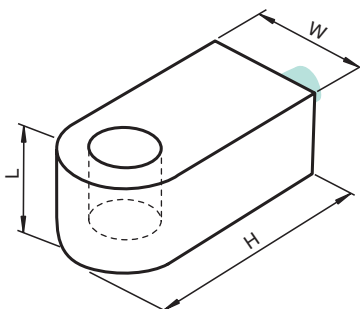
### Standard Technical Data

<b>Detection range</b>	43 mm
<b>Output type</b>	3-wire
<b>Output type</b>	PNP
<b>Switching function</b>	Normally-open (NO)
<b>Voltage type</b>	DC
<b>Switching frequency</b>	500 Hz
<b>Operating voltage (min)</b>	10 V
<b>Operating voltage (max)</b>	30 V
<b>Connection type</b>	Fixed cable
<b>Cable length</b>	2000 mm
<b>Cable material</b>	PVC
<b>Housing length L</b>	20 mm
<b>Housing width W</b>	70 mm
<b>Housing height H</b>	100 mm
<b>CSA</b>	■
<b>UL</b>	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

### Model number

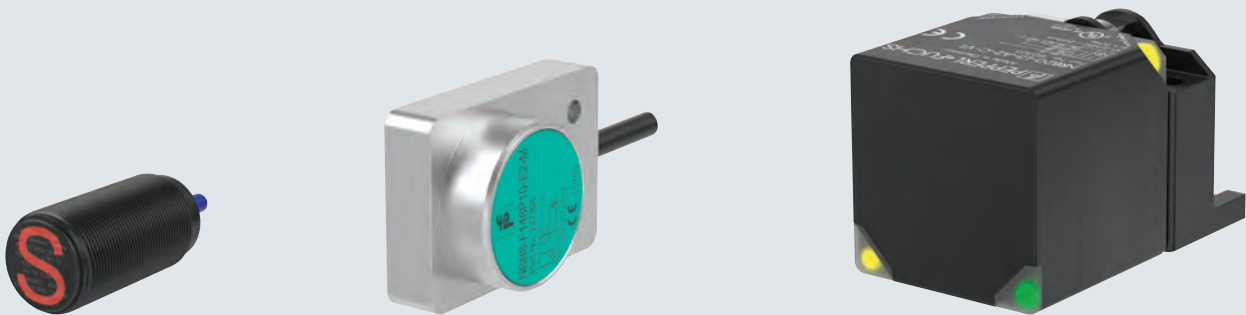
RJ43-E2



# Specialized Inductive Proximity Sensors

## Specialized Sensors for Specific Tasks

Whether it is for welding work in automotive manufacturing, severe temperature fluctuations in mobile applications, or specific safety requirements in hazardous areas, Pepperl+Fuchs offers the best sensor to meet any challenge.



### Industry-Specific Special Sensors

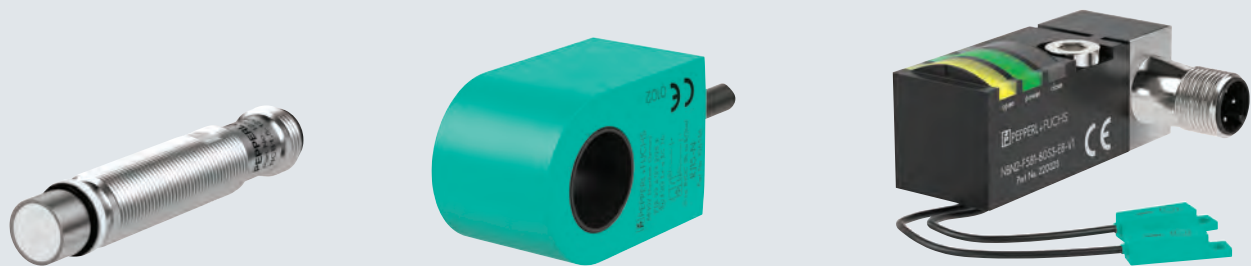
In addition to the scope of our comprehensive standard portfolio, different industries also place their own specific requirements on sensor technology. The automotive, mobile equipment, and process industries are three extreme examples where intrinsically safe NAMUR sensors are used. In addition to these three areas, Pepperl+Fuchs offers a range of sensors specifically tailored to individual industry requirements.

#### Typical Applications

- Position querying in the welding areas of automotive manufacturing
- Valve position feedback in explosion-hazardous areas
- Outrigger monitoring for mobile cranes

#### Your Benefits at a Glance

- Largest portfolio of sensors for explosion protection with global approvals (e.g. ATEX, IECEx, EAC-Ex), e.g., for the process industry
- Weld-proof sensors for maximum robustness, e.g. in automotive manufacturing
- Pressure-resistant sensors for maximum resistance when used in hydraulic cylinders, for example
- Extremely resistant sensors with E1 approval for use on public roads for the mobile equipment industry
- Reduction factor 1 sensors with the same switching distance with all metals for maximum flexibility, e.g., in mechanical engineering



## Proximity Sensors in Special Designs

In addition to industry-specific solutions, sensors often have to be adapted to specific installation conditions. As well as the countless cylindrical and cubic standard designs, the Pepperl+Fuchs portfolio also includes special designs that have been specially adapted to the spatial conditions of certain applications.

### Typical Applications

- Ring-shaped proximity sensors for detecting and counting small parts or detecting fill levels
- Design F58: Detection of two different target positions in minimal space, e.g. for power clamps

### The Benefits of Selected Sensors at a Glance

#### Ring-shaped proximity sensors with RC/RJ design:

- Reliable detection of even the smallest parts due to high accuracy
- High passing speed of up to 10 m/s
- Bistable models with direction detection
- NAMUR versions with explosion protection approval for Zone 1

#### F58 design for power clamps:

- Special design with two sensors connected to the main housing via a flexible cable
- Flexible installation thanks to the rotating M12 connector
- A number of sensor designs available for minimal installation space
- Easy diagnosis via a bright LED strip around the edge

# Specialized Inductive Proximity Sensors

## Contents



**Weld-Proof Cylindrical Sensors**  
Page 86



**Weld-Proof Cube-Style Sensors**  
Page 88



**Reduction Factor 1 - Cylindrical Sensors**  
Page 90



**Reduction Factor 1 - Cube-Style Sensors**  
Page 92



**Metal Face - Cylindrical Sensors**  
Page 94



**Safety Sensors with OSSD Output**  
Page 103



**Sensors for Hazardous Areas - Cylindrical Sensors**  
Page 104



**Sensors for Hazardous Areas - Cube-Style Sensors**  
Page 108



**Sensors for Mobile Equipment - Cylindrical Sensors**  
Page 110



**Sensors for Mobile Equipment - Cube-Style Sensors**  
Page 113



**Metal Face - Cube-Style Sensors**  
Page 96



**Pressure-Resistant Sensors**  
Page 97



**High-Temperature - Cylindrical Sensors**  
Page 98



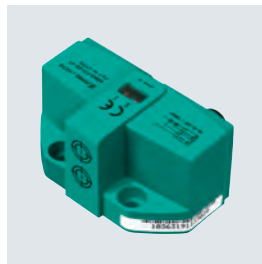
**High-Temperature - Cube-Style Sensors**  
Page 100



**Safety Sensors with NAMUR Output and Ex Approval**  
Page 102



**Sensors for Valve Position Detection - F25 Series**  
Page 114



**Sensors for Valve Position Detection - F31/F31K Series**  
Page 115



**Sensors for Valve Position Detection - F31K2 Series**  
Page 116

# Weld-Proof Cylindrical Sensors



## Standard Technical Data

<b>Voltage type</b>	DC
<b>Operating voltage (max)</b>	30 V
<b>UL</b>	■

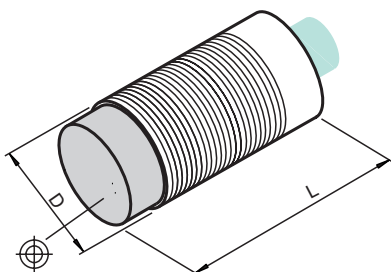
For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	Connection type	Length L	Diameter D	CSA
NBB1,5-8GM30-E2-C-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	1800	10	M12 connector plug	30	8	■
NRB1,5-8GM40-E2-C-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	1000	10	M12 connector plug	40	8	
NMB1,5-8GM35-E2-C-FE-150MM-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	5	10	Fixed cable with M12 plug	35	8	■
NMB1,5-8GM35-E2-C-FE-150MM-V3	Flush	1.5	3-wire	PNP	Normally-open (NO)	5	10	Fixed cable with M8 plug	35	8	■
NBB1,5-8GM40-E2-C	Flush	1.5	3-wire	PNP	Normally-open (NO)	1800	10	Fixed cable	40	8	■
NBB1,5-8GM40-E2-C-V3	Flush	1.5	3-wire	PNP	Normally-open (NO)	1800	10	M8 connector plug	40	8	■
NMB1,5-8GM50-E2-C-FE-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	5	10	M12 connector plug	40	8	■
NRB2-8GM40-E2-C-V1	Flush	2	3-wire	PNP	Normally-open (NO)	1000	10	M12 connector plug	40	8	
NRB2-12GM40-E2-C-V1	Flush	2	3-wire	PNP	Normally-open (NO)	2000	10	M12 connector plug	55	12	
NBB2-12GM50-E0-C-V1	Flush	2	3-wire	NPN	Normally-open (NO)	1500	10	M12 connector plug	49	12	■
NBB2-12GM50-E2-C	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	Fixed cable	50	12	■
NBB2-12GM50-E2-C-V1	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	M12 connector plug	49	12	■
NRB3-12GM40-E2-C-V1	Flush	3	3-wire	PNP	Normally-open (NO)	2000	10	M12 connector plug	55	12	
NMB2-12GM40-Z3-C-FE-300MM-V1	Flush	2	2-wire	2-wire	Normally-open (NO)	5	6	Fixed cable with M12 plug	40	12	■
NRB4-12GM40-A2-C	Flush	4	4-wire	PNP	Complementary	2000	10	Fixed cable	40	12	
NRB4-12GM40-E2-C-V1	Flush	4	3-wire	PNP	Normally-open (NO)	2000	10	M12 connector plug	55	12	
NRB4-12GM50-E2-C-V1	Flush	4	3-wire	PNP	Normally-open (NO)	2000	10	M12 connector plug	65	12	
NRB5-18GM40-E2-C-V1	Flush	5	3-wire	PNP	Normally-open (NO)	600	10	M12 connector plug	55	18	
NRB4-12GM40-E2-IO-C	Flush	4	3-wire	IO-Link, PNP	Normally open/close selectable	2000	10	Fixed cable	40	12	
NRB5-18GM50-E2-C-V1	Flush	5	3-wire	PNP	Normally-open (NO)	600	10	M12 connector plug	65	18	
NRB4-12GM40-E2-IO-C-V1	Flush	4	3-wire	IO-Link, PNP	Normally open/close selectable	2000	10	M12 connector plug	55	12	
NMB2-12GM65-E2-C-FE-V1	Flush	2	3-wire	PNP	Normally-open (NO)	5	10	M12 connector plug	44	12	■
NMB2-12GM75-Z0-C-FE-V1	Flush	2	2-wire	2-wire	Normally-open (NO)	5	6	M12 connector plug	75	12	■
NBB5-18GM50-E0-C-V1	Flush	5	3-wire	NPN	Normally-open (NO)	800	10	M12 connector plug	50	18	■
NBB5-18GM50-E2-C-V1	Flush	5	3-wire	PNP	Normally-open (NO)	800	10	M12 connector plug	50	18	■
NRB6-18GM40-E2-C-V1	Flush	6	3-wire	PNP	Normally-open (NO)	600	10	M12 connector plug	55	18	
NRB8-18GM40-E2-C-V1	Flush	8	3-wire	PNP	Normally-open (NO)	600	10	M12 connector plug	55	18	
NMB3-8GM50-E2-C-V1	Flush	3	3-wire	PNP	Normally-open (NO)	5	10	M12 connector plug	50	8	■
NRB8-18GM50-E2-C-V1	Flush	8	3-wire	PNP	Normally-open (NO)	600	10	M12 connector plug	65	18	
NRB10-30GM50-E2-C-V1	Flush	10	3-wire	PNP	Normally-open (NO)	750	10	M12 connector plug	65	30	
NMB5-12GM45-Z9-C4-300MM-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	1	6	Fixed cable with M12 plug	45	12	■
NRB8-18GM40-E2-IO-C	Flush	8	3-wire	IO-Link, PNP	Normally open/close selectable	1500	10	Fixed cable	45	18	
NRB12-18GM40-E2-C-V1	Semi-flush	12	3-wire	PNP	Normally-open (NO)	600	10	M12 connector plug	40	18	■
NMB5-12GM45-Z4-C4-300MM-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	1	6	Fixed cable with M12 plug	45	12	■
NRB8-18GM40-E2-IO-C-V1	Flush	8	3-wire	IO-Link, PNP	Normally open/close selectable	1500	10	M12 connector plug	55	18	
NRB13-30GM50-E2-C-V1	Flush	13	3-wire	PNP	Normally-open (NO)	750	10	M12 connector plug	65	30	

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	Connection type	Length L	Diameter D	CSA
NBB10-30GM50-E2-C-V1	Flush	10	3-wire	PNP	Normally-open (NO)	10	10	M12 connector plug	50	30	■
NMB5-12GM65-E2-C-V1	Flush	5	3-wire	PNP	Normally-open (NO)	5	10	M12 connector plug	65	12	■
NMB5-12GM65-E2-C4-V1	Flush	5	3-wire	PNP	Normally-open (NO)	1	10	M12 connector plug	65	12	■
NRB15-30GM50-A2-C	Flush	15	4-wire	PNP	Complementary	750	10	Fixed cable	50	30	
NMB5-18GM55-Z3-C-FE-300MM-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	5	6	Fixed cable with M12 plug	55	18	■
NMB5-18GM65-E2-C-FE-V1	Flush	5	3-wire	PNP	Normally-open (NO)	5	10	M12 connector plug	65	18	■
NRB15-30GM50-E2-C-V1	Flush	15	3-wire	PNP	Normally-open (NO)	750	10	M12 connector plug	65	30	
NBN3-8GM30-E2-C-V1	Non-flush	3	3-wire	PNP	Normally-open (NO)	50	10	M12 connector plug	35	8	■
NBN4-12GM50-E2-C	Non-flush	4	3-wire	PNP	Normally-open (NO)	1200	10	Fixed cable	50	12	■
NBN4-12GM50-E2-C-V1	Non-flush	4	3-wire	PNP	Normally-open (NO)	1200	10	M12 connector plug	46	12	■
NRN6-8GM40-E2-C-V1	Non-flush	6	3-wire	PNP	Normally-open (NO)	400	10	M12 connector plug	40	8	
NBN8-18GM50-E2-C-V1	Non-flush	8	3-wire	PNP	Normally-open (NO)	500	10	M12 connector plug	50	18	■
NRN10-12GM40-A2-C	Non-flush	10	4-wire	PNP	Complementary	1000	10	Fixed cable	40	12	
NRN10-12GM40-E2-C-V1	Non-flush	10	3-wire	PNP	Normally-open (NO)	1000	10	M12 connector plug	55	12	
NRN10-12GM40-E2-IO-C	Non-flush	10	3-wire	IO-Link, PNP	Normally open/close selectable	1300	10	Fixed cable	40	12	
NRN10-12GM40-E2-IO-C-V1	Non-flush	10	3-wire	IO-Link, PNP	Normally open/close selectable	1300	10	M12 connector plug	55	12	
NRN12-18GM50-E2-C-V1	Non-flush	12	3-wire	PNP	Normally-open (NO)	500	10	M12 connector plug	65	18	
NMB8-30GM65-E2-C-FE-V1	Flush	8	3-wire	PNP	Normally-open (NO)	2	10	M12 connector plug	40	30	■
NRN15-18GM40-E2-IO-C	Non-flush	15	3-wire	IO-Link, PNP	Normally open/close selectable	550	10	Fixed cable	40	18	
NRN15-18GM40-E2-IO-C-V1	Non-flush	15	3-wire	IO-Link, PNP	Normally open/close selectable	550	10	M12 connector plug	55	18	
NRN15-18GM50-A2-C	Non-flush	15	4-wire		Complementary	800	10	Fixed cable	55	18	
NRN15-18GM50-E2-C-V1	Non-flush	15	3-wire	PNP	Normally-open (NO)	500	10	M12 connector plug	65	18	
NMB10-18GM65-E2-C-V1	Flush	10	3-wire	PNP	Normally-open (NO)	5	10	M12 connector plug	65	18	■
NMB10-18GM65-E2-C4-V1	Flush	10	3-wire	PNP	Normally-open (NO)	1	10	M12 connector plug	65	18	■
NRN20-30GM50-E2-C-V1	Non-flush	20	3-wire	PNP	Normally-open (NO)	300	10	M12 connector plug	65	30	
NRN30-30GM50-A2-C	Non-flush	30	4-wire	PNP	Complementary	300	10	Fixed cable	50	30	
NRN30-30GM50-E2-C-V1	Non-flush	30	3-wire	PNP	Normally-open (NO)	300	10	M12 connector plug	65	30	
NRN30-30GM50-E2-IO-C	Non-flush	30	3-wire	IO-Link, PNP	Normally open/close selectable	680	10	Fixed cable	50	30	
NRN30-30GM50-E2-IO-C-V1	Non-flush	30	3-wire	IO-Link, PNP	Normally open/close selectable	680	10	M12 connector plug	65	30	
NMB15-30GM65-E2-C-V1	Flush	15	3-wire	PNP	Normally-open (NO)	5	10	M12 connector plug	65	30	■
NMB15-30GM65-E2-C4-V1	Flush	15	3-wire	PNP	Normally-open (NO)	1	10	M12 connector plug	65	30	■

## Highlights

- Safe switching characteristics due to high magnetic field immunity
- Extremely durable thanks to rugged IP67 and IP68 housing designs with resilient PTFE coating or weld-proof plastic
- Available with IO-Link as an option
- Many years of experience in the selection and integration of sensors



## Brief Description

Resistant to magnetic fields and welding sparks. Weld-proof sensors with a degree of protection up to IP68 are the ideal detection solution in welding areas and other harsh operating environments. An assembly with two coupled air coils makes them insensitive to magnetic fields, which can occur during electric welding or through frequency converters. The sensor electronics themselves also guarantee the highest level of immunity towards EMC interference. The housing design of the various versions also ensures maximum durability and availability. The brass sleeves of the cylindrical sensors are PTFE coated, ensuring they are also protected against welding sparks and metal chips.

### Accessories

AB-12	Mounting aid
AB-18	Mounting aid
BF 12	Mounting adapter, 12 mm
BF 18	Mounting adapter, 18 mm
BF 30	Mounting adapter, 30 mm
BF 8	Mounting adapter, 8 mm
EXG-08	Quick-mounting bracket with fixed stop
EXG-12	Quick-mounting bracket with fixed stop



# Weld-Proof Cube-Style Sensors



For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Width W	Height H	CCC	CSA	UL
NMB6-F104M-E2-C-FE-200MM-V1	Flush	6	3-wire	PNP	Normally-open (NO)	DC	2	10	30	Fixed cable with M12 plug	32	20	8			
NMB6-F104M-E2-C-FE-200MM-V3	Flush	6	3-wire	PNP	Normally-open (NO)	DC	2	10	30	Fixed cable with M8 plug	32	20	8			
NRB20-L3-E2-IO-C-V1	Flush	20	3-wire	IO-Link, PNP	Normally open/close selectable	DC	440	10	30	M12 connector plug	67	40	40			■
NBB15-U1-E2-C	Flush	15	3-wire	PNP	Normally-open (NO)	DC	4	10	30	Terminal compartment	118	40	40			■
NMB6-F104M-E2-C-NFE-200MM-V1	Flush	6	3-wire	PNP	Normally-open (NO)	DC	2	10	30	Fixed cable with M12 plug	32	20	8			
NRB50-FP-A2-C-P3-V1	Flush	50	4-wire	PNP	Complementary	DC	1	10	30	M12 connector plug	84	84	40	■	■	
NBB20-L2-A2-C-V1	Flush	20	4-wire	PNP	Complementary	DC	5	10	30	M12 connector plug	67	40	40			■
NBB20-L2-E2-C-V1	Flush	20	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	67	40	40			■
NMB6-F104M-E2-C-NFE-200MM-V3	Flush	6	3-wire	PNP	Normally-open (NO)	DC	2	10	30	Fixed cable with M8 plug	32	20	8			
NRB50-FP-E2-C-P3-V1	Flush	50	3-wire	PNP	Normally-open (NO)	DC	1	10	30	M12 connector plug	84	84	40	■	■	
NBB20-U1-E2-C	Flush	20	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	118	40	40			■
NBB20-U1-E2-C-V1	Flush	20	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	118	40	40			■
NBB20-U4-E2-C	Flush	20	3-wire	PNP	Normally-open (NO)	DC	5	10	30	Terminal compartment	118	40	40			■
NBB20-U4-E2-C-V1	Flush	20	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	118	40	40			■
NRN40-L3K-E2-IO-C-V1	Non-flush	40	3-wire	IO-Link, PNP	Normally open/close selectable	DC	180	10	30	M12 connector plug	67	40	40			■
NBB20-L2-E2B-C-V1	Flush	20	3-wire	PNP	Normally-open (NO)	DC	50	10	30	M12 connector plug	67	40	40	■	■	
NBB20-L3M-US-C3-V12	Flush	20	2-wire	2-wire	Normally-open (NO)	AC/DC	2	20	300	1/2 inch connector plug	68	40	40	■	■	■
NRN75-FP-A2-C-P3-V1	Non-flush	75	4-wire	PNP	Complementary	DC	1	10	30	M12 connector plug	80	80	40	■	■	
NRN75-FP-E2-C-P3-V1	Non-flush	75	3-wire	PNP	Normally-open (NO)	DC	1	10	30	M12 connector plug	80	80	40	■	■	
NCB50-FP-E2-C-P1-V1	Flush	50	3-wire	PNP	Normally-open (NO)	DC	1	10	60	M12 connector plug	84	84	40	■	■	■
NCB50-FP-E2-C-P3-V1	Flush	50	3-wire	PNP	Normally-open (NO)	DC	1	10	30	M12 connector plug	84	84	40	■	■	
NCB50-FP-A2-C-P3-V1	Flush	50	4-wire	PNP	Complementary	DC	1	10	60	M12 connector plug	84	84	40	■	■	■
NCB50-FP-E34-C-P3-V1	Flush	50	3-wire	PNP	Normally-closed (NC)	DC	1	10	60	M12 connector plug	84	84	40	■	■	
NBN4-F29-E2-C	Non-flush	4	3-wire	PNP	Normally-open (NO)	DC	1000	4,8	30	Fixed cable	27	10	6	■	■	
NBN4-F29A-E2-C	Non-flush	4	3-wire	PNP	Normally-open (NO)	DC	1000	10	30	Fixed cable	9	27	10	■	■	
NBN30-L2-A2-C-V1	Non-flush	30	4-wire	PNP	Complementary	DC	5	10	30	M12 connector plug	67	40	40			■
NRN35-L3-A2-C-V1	Non-flush	35	4-wire	PNP	Complementary	DC	180	10	30	M12 connector plug	67	40	40			■
NBN40-U1-E2-C	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	118	40	40			■
NBN40-L2-A2-C-V1	Non-flush	40	4-wire	PNP	Complementary	DC	5	10	30	M12 connector plug	67	40	40			■
NBN40-L2-E2-C-V1	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	67	40	40			■
NBN40-L2-E2B-C-V1	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	50	10	30	M12 connector plug	67	40	40			■
NRN40-L3K-A2-C-V1	Non-flush	40	4-wire	PNP	Complementary	DC	180	10	30	M12 connector plug	67	40	40			■
NRN40-L3K-E2-C-V1	Non-flush	40	3-wire	PNP	Normally-open (NO)	DC	180	10	30	M12 connector plug	67	40	40			■



# Reduction Factor 1 - Cylindrical Sensors



Standard Technical Data	
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	Connection type	Cable length [mm]	Cable material	Length L	Diameter D	CSA	EAC
NRB1-5-8GM40-E2-C-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	1000	M12 connector plug			40	8		
NRB2-6,5S40-E2-V3	Flush	2	3-wire	PNP	Normally-open (NO)	4000	M8 connector plug			40	6.5		
NRB2-8GH40-E2	Flush	2	3-wire	PNP	Normally-open (NO)	4000	Fixed cable	2000	PVC	40	8		
NRB2-8GH40-E2-V1	Flush	2	3-wire	PNP	Normally-open (NO)	4000	M12 connector plug			40	8		
NRB2-8GS40-E2-V1	Flush	2	3-wire	PNP	Normally-open (NO)	4000	M12 connector plug			40	8		
NRB2-8GS40-E2-V3	Flush	2	3-wire	PNP	Normally-open (NO)	4000	M8 connector plug			40	8		■
NRB2-8GM40-E2-C-V1	Flush	2	3-wire	PNP	Normally-open (NO)	1000	M12 connector plug			40	8		
NRB2-12GM40-E2-C-V1	Flush	2	3-wire	PNP	Normally-open (NO)	2000	M12 connector plug			55	12		
NRB3-12GS40-E2-V1	Flush	3	3-wire	PNP	Normally-open (NO)	2000	M12 connector plug			55	12		
NRB3-12GM40-E2-C-V1	Flush	3	3-wire	PNP	Normally-open (NO)	2000	M12 connector plug			55	12		
NRB4-12GH40-E2	Flush	4	3-wire	PNP	Normally-open (NO)	2000	Fixed cable	2000	PVC	40	12		
NRB4-12GM40-E2-V1	Flush	4	3-wire	PNP	Normally-open (NO)	2000	M12 connector plug			55	12		
NRB4-12GS40-A2-V1	Flush	4	4-wire	PNP	Complementary	2000	M12 connector plug			55	12		
NRB4-12GS40-E2	Flush	4	3-wire	PNP	Normally-open (NO)	2000	Fixed cable	2000	PVC	40	12		
NRB4-12GS40-E2-V1	Flush	4	3-wire	PNP	Normally-open (NO)	2000	M12 connector plug			55	12		■
NRB4-12GS40-E3-V1	Flush	4	3-wire	PNP	Normally-closed (NC)	2000	M12 connector plug			55	12		
NRB4-12GM40-A2-C	Flush	4	4-wire	PNP	Complementary	2000	Fixed cable	2000	PUR	40	12		
NRB4-12GM40-E2-C-V1	Flush	4	3-wire	PNP	Normally-open (NO)	2000	M12 connector plug			55	12		
NRB4-12GM50-E2-C-V1	Flush	4	3-wire	PNP	Normally-open (NO)	2000	M12 connector plug			65	12		
NRB5-18GM40-E2-C-V1	Flush	5	3-wire	PNP	Normally-open (NO)	600	M12 connector plug			55	18		
NRB5-18GM50-E2-C-V1	Flush	5	3-wire	PNP	Normally-open (NO)	600	M12 connector plug			65	18		
NRB6-18GS40-E2-V1	Flush	6	3-wire	PNP	Normally-open (NO)	1200	M12 connector plug			55	18		
NRB8-18GH40-E2	Flush	8	3-wire	PNP	Normally-open (NO)	1200	Fixed cable	2000	PVC	45	18		
NRB8-18GH40-E2-V1	Flush	8	3-wire	PNP	Normally-open (NO)	1200	M12 connector plug			55	18		
NRB8-18GS40-A2-V1	Flush	8	4-wire	PNP	Complementary	1200	M12 connector plug			55	18		
NRB8-18GS40-E2-IO	Flush	8	3-wire	IO-Link, PNP	Normally open/close selectable	1500	Fixed cable	2000	PVC	45	18		
NRB8-18GS40-E2-IO-V1	Flush	8	3-wire	IO-Link, PNP	Normally open/close selectable	1500	M12 connector plug			55	18		
NRB8-18GS40-E2-V1	Flush	8	3-wire	PNP	Normally-open (NO)	1200	M12 connector plug			55	18		
NRB8-18GS50-E2-V1	Flush	8	3-wire	PNP	Normally-open (NO)	1200	M12 connector plug			65	18		
NRB8-18GS50-E3-V1	Flush	8	3-wire	PNP	Normally-closed (NC)	1200	M12 connector plug			65	18		
NRB6-18GM40-E2-C-V1	Flush	6	3-wire	PNP	Normally-open (NO)	600	M12 connector plug			55	18		
NRB8-18GM40-E2-C-V1	Flush	8	3-wire	PNP	Normally-open (NO)	600	M12 connector plug			55	18		
NRB8-18GM50-E2-C-V1	Flush	8	3-wire	PNP	Normally-open (NO)	600	M12 connector plug			65	18		
NRB10-30GM50-E2-C-V1	Flush	10	3-wire	PNP	Normally-open (NO)	750	M12 connector plug			65	30		
NRB12-18GS40-E2-V1	Semi-flush	12	3-wire	PNP	Normally-open (NO)	600	M12 connector plug			40	18		■
NRB12-18GM40-E2-C-V1	Semi-flush	12	3-wire	PNP	Normally-open (NO)	600	M12 connector plug			40	18		■
NRB13-30GS50-E2-V1	Flush	13	3-wire	PNP	Normally-open (NO)	750	M12 connector plug			65	30		
NRB13-30GM50-E2-C-V1	Flush	13	3-wire	PNP	Normally-open (NO)	750	M12 connector plug			65	30		
NRB15-30GH50-E2	Flush	15	3-wire	PNP	Normally-open (NO)	750	Fixed cable	2000	PVC	50	30		
NRB15-30GH50-E2-V1	Flush	15	3-wire	PNP	Normally-open (NO)	750	M12 connector plug			65	30		
NRB15-30GM50-E2-IO-C	Flush	15	3-wire	IO-Link, PNP	Normally open/close selectable	600	Fixed cable	2000	PUR	40	30		

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	Connection type	Cable length [mm]	Cable material	Length L	Diameter D	CSA	EAC
NRB15-30GM50-E2-IO-C-V1	Flush	15	3-wire	IO-Link, PNP	Normally open/close selectable	600	M12 connector plug			65	30		
NRB15-30GS50-E2	Flush	15	3-wire	PNP	Normally-open (NO)	750	Fixed cable	2000	PVC	50	30		
NRB15-30GM50-A2-C	Flush	15	4-wire	PNP	Complementary	750	Fixed cable	2000	PUR	50	30		
NRB15-30GM50-E2-C-V1	Flush	15	3-wire	PNP	Normally-open (NO)	750	M12 connector plug			65	30		
NRB15-30GS50-E2-V1	Flush	15	3-wire	PNP	Normally-open (NO)	750	M12 connector plug			65	30		
NRB15-30GS50-E3-V1	Flush	15	3-wire	PNP	Normally-closed (NC)	750	M12 connector plug			65	30		
NRN6-6,5S40-E2-V3	Non-flush	6	3-wire	PNP	Normally-open (NO)	2500	M8 connector plug			40	6.5		
NRN6-8GH40-E2	Non-flush	6	3-wire	PNP	Normally-open (NO)	2500	Fixed cable	2000	PVC	40	8		
NRN6-8GH40-E2-V1	Non-flush	6	3-wire	PNP	Normally-open (NO)	2500	M12 connector plug			40	8		
NRN6-8GM40-E2-C-V1	Non-flush	6	3-wire	PNP	Normally-open (NO)	400	M12 connector plug			40	8		
NRN6-8GS40-E2-V1	Non-flush	6	3-wire	PNP	Normally-open (NO)	2500	M12 connector plug			40	8		
NRN6-8GS40-E2-V3	Non-flush	6	3-wire	PNP	Normally-open (NO)	2500	M8 connector plug			40	8		
NRN10-12GM40-A2-C	Non-flush	10	4-wire	PNP	Complementary	1000	Fixed cable	2000	PUR	40	12		
NRN10-12GM40-E2-C-V1	Non-flush	10	3-wire	PNP	Normally-open (NO)	1000	M12 connector plug			55	12		
NRN10-12GM40-E2-IO-C	Non-flush	10	3-wire	IO-Link, PNP	Normally open/close selectable	1300	Fixed cable	2000	PUR	40	12		
NRN10-12GM40-E2-IO-C-V1	Non-flush	10	3-wire	IO-Link, PNP	Normally open/close selectable	1300	M12 connector plug			55	12		
NRN10-12GH40-E2	Non-flush	10	3-wire	PNP	Normally-open (NO)	1500	Fixed cable	2000	PVC	40	12		
NRN10-12GH40-E2-V1	Non-flush	10	3-wire	PNP	Normally-open (NO)	1500	M12 connector plug			55	12		
NRN10-12GS40-A2-V1	Non-flush	10	4-wire	PNP	Complementary	1500	M12 connector plug			55	12		
NRN10-12GS40-E2	Non-flush	10	3-wire	PNP	Normally-open (NO)	1500	Fixed cable	2000	PVC	40	12		
NRN10-12GS40-E2-IO	Non-flush	10	3-wire	IO-Link, PNP	Normally open/close selectable	1300	Fixed cable	2000	PVC	40	12		
NRN10-12GS40-E2-IO-V1	Non-flush	10	3-wire	IO-Link, PNP	Normally open/close selectable	1300	M12 connector plug			55	12		
NRN10-12GS40-E2-V1	Non-flush	10	3-wire	PNP	Normally-open (NO)	1500	M12 connector plug			55	12		
NRN10-12GS40-E3-V1	Non-flush	10	3-wire	PNP	Normally-closed (NC)	1500	M12 connector plug			55	12		
NRN12-18GM50-E2-C-V1	Non-flush	12	3-wire	PNP	Normally-open (NO)	500	M12 connector plug			65	18		
NRN15-18GM40-E2-IO-C	Non-flush	15	3-wire	IO-Link, PNP	Normally open/close selectable	550	Fixed cable	2000	PUR	40	18		
NRN15-18GM40-E2-IO-C-V1	Non-flush	15	3-wire	IO-Link, PNP	Normally open/close selectable	550	M12 connector plug			55	18		
NRN15-18GH40-E2	Non-flush	15	3-wire	PNP	Normally-open (NO)	800	Fixed cable	2000	PVC	45	18		
NRN15-18GH40-E2-V1	Non-flush	15	3-wire	PNP	Normally-open (NO)	800	M12 connector plug			55	18		
NRN15-18GS40-A2-V1	Non-flush	15	4-wire	PNP	Complementary	800	M12 connector plug			55	18		
NRN15-18GS40-E2-IO	Non-flush	15	3-wire	IO-Link, PNP	Normally open/close selectable	550	Fixed cable	2000	PVC	40	18		
NRN15-18GS40-E2-IO-V1	Non-flush	15	3-wire	IO-Link, PNP	Normally open/close selectable	550	M12 connector plug			55	18		
NRN15-18GS40-E2-V1	Non-flush	15	3-wire	PNP	Normally-open (NO)	800	M12 connector plug			55	18		
NRN15-18GM50-A2-C	Non-flush	15	4-wire		Complementary	800	Fixed cable	2000	PUR	55	18		
NRN15-18GM50-E2-C-V1	Non-flush	15	3-wire	PNP	Normally-open (NO)	500	M12 connector plug			65	18		
NRN15-18GS50-E2	Non-flush	15	3-wire		Normally-open (NO)	800	Fixed cable	2000	PVC	55	18		
NRN15-18GS50-E2-V1	Non-flush	15	3-wire	PNP	Normally-open (NO)	800	M12 connector plug			65	18		
NRN15-18GS50-E3-V1	Non-flush	15	3-wire	PNP	Normally-closed (NC)	800	M12 connector plug			65	18		
NRN20-30GM50-E2-C-V1	Non-flush	20	3-wire	PNP	Normally-open (NO)	300	M12 connector plug			65	30		
NRN30-30GM50-A2-C	Non-flush	30	4-wire	PNP	Complementary	300	Fixed cable	2000	PUR	50	30		
NRN30-30GM50-E2-C-V1	Non-flush	30	3-wire	PNP	Normally-open (NO)	300	M12 connector plug			65	30		
NRN30-30GM50-E2-IO-C	Non-flush	30	3-wire	IO-Link, PNP	Normally open/close selectable	680	Fixed cable	2000	PUR	50	30		
NRN30-30GM50-E2-IO-C-V1	Non-flush	30	3-wire	IO-Link, PNP	Normally open/close selectable	680	M12 connector plug			65	30		
NRN30-30GH50-E2	Non-flush	30	3-wire	PNP	Normally-open (NO)	300	Fixed cable	2000	PVC	50	30		
NRN30-30GH50-E2-V1	Non-flush	30	3-wire	PNP	Normally-open (NO)	300	M12 connector plug			65	30		
NRN30-30GS50-E2	Non-flush	30	3-wire	PNP	Normally-open (NO)	300	Fixed cable	2000	PVC	50	30		
NRN30-30GS50-E2-IO	Non-flush	30	3-wire	IO-Link, PNP	Normally open/close selectable	680	Fixed cable	2000	PVC	50	30		
NRN30-30GS50-E2-IO-V1	Non-flush	30	3-wire	IO-Link, PNP	Normally open/close selectable	680	M12 connector plug			65	30		
NRN30-30GS50-E2-V1	Non-flush	30	3-wire	PNP	Normally-open (NO)	300	M12 connector plug			65	30		
NRN30-30GS50-E3-V1	Non-flush	30	3-wire	PNP	Normally-closed (NC)	300	M12 connector plug			65	30		

## Highlights

- Maximum flexibility—wide range of sensors for material-independent detection of metallic objects with identical sensing range
- Highly rugged and weld-proof sensors with degree of protection up to IP68/IP69K for use in harsh industrial environments
- Extremely durable thanks to rugged IP67 and IP68 housing designs with resilient PTFE coating or weld-proof plastic
- Available with IO-Link as an option

## Brief Description

The broad portfolio of reduction factor 1 sensors from Pepperl+Fuchs enables maximum flexibility in the design of machines and plants. This is ensured through industry-standard cylindrical and cubic designs, different cable versions, variants with IO-Link, and weld-proof and chemically resistant special sensors for particularly harsh operational conditions. Users benefit from Pepperl+Fuchs' technological expertise and many years of experience as pioneers of inductive sensor technology as part of customer and application-specific adaptations.

## Reduction Factor 1 - Cube-Style Sensors



### Standard Technical Data

<b>Voltage type</b>	DC
<b>Operating voltage (min)</b>	10 V
<b>Operating voltage (max)</b>	30 V
<b>Housing height H</b>	40 mm
<b>UL</b>	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	Connection type	Length L	Width W	CSA
NRB20-U1-A2	Flush	20	4-wire	PNP	Complementary	440	Terminal compartment	118	40	
NRB20-U1-E2-IO	Flush	20	3-wire	IO-Link, PNP	Normally open/close selectable	440	Terminal compartment	118	40	
NRB20-L3-E2-IO-V1	Flush	20	3-wire	IO-Link, PNP	Normally open/close selectable	440	M12 connector plug	67	40	
NRB20-L3-E2-IO-C-V1	Flush	20	3-wire	IO-Link, PNP	Normally open/close selectable	440	M12 connector plug	67	40	
NRB50-FP-A2-P3-V1	Flush	50	4-wire	PNP	Complementary	80	M12 connector plug	84	84	■
NRB50-FP-A2-C-P3-V1	Flush	50	4-wire	PNP	Complementary	1	M12 connector plug	84	84	■
NRB50-FP-E2-P3-V1	Flush	50	3-wire	PNP	Normally-open (NO)	80	M12 connector plug	84	84	■
NRB50-FP-E2-C-P3-V1	Flush	50	3-wire	PNP	Normally-open (NO)	1	M12 connector plug	84	84	■
NRN40-U1-A2	Non-flush	40	4-wire	PNP	Complementary	180	Terminal compartment	118	40	
NRN40-U1-E2-IO-V1	Non-flush	40	3-wire	IO-Link, PNP	Normally open/close selectable	180	M12 connector plug	118	40	
NRN40-L3K-E2-IO-V1	Non-flush	40	3-wire	IO-Link, PNP	Normally open/close selectable	180	M12 connector plug	67	40	
NRN40-L3K-E2-IO-C-V1	Non-flush	40	3-wire	IO-Link, PNP	Normally open/close selectable	180	M12 connector plug	67	40	
NRN75-FP-A2-P3	Non-flush	75	4-wire	PNP	Complementary	50	Terminal compartment	80	80	■
NRN75-FP-A2-C-P3-V1	Non-flush	75	4-wire	PNP	Complementary	1	M12 connector plug	80	80	■
NRN75-FP-A2-P3-V1	Non-flush	75	4-wire	PNP	Complementary	50	M12 connector plug	80	80	■
NRN75-FP-E2-C-P3-V1	Non-flush	75	3-wire	PNP	Normally-open (NO)	1	M12 connector plug	80	80	■

### Highlights

- Maximum flexibility—wide range of sensors for material-independent detection of metallic objects with identical sensing range
- Highly rugged and weld-proof sensors with degree of protection up to IP68/IP69K for use in harsh industrial environments
- Extremely durable thanks to rugged IP67 and IP68 housing designs with resilient PTFE coating or weld-proof plastic

### Brief Description

The broad portfolio of reduction factor 1 sensors from Pepperl+Fuchs enables maximum flexibility in the design of machines and plants. This is ensured through industry-standard cylindrical and cubic designs, different cable versions, variants with IO-Link, and weld-proof and chemically resistant special sensors for particularly harsh operational conditions. Users benefit from Pepperl+Fuchs' technological expertise and many years of experience as pioneers of inductive sensor technology as part of customer and application-specific adaptations.

### Accessories

<b>IO-Link-Master02-USB</b>	IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection
<b>MH 02-L</b>	Mounting aid
<b>MH 04-2681F</b>	Mounting aid for VariKont, +U1+, and +U9* sensors
<b>MHW 01</b>	Modular mounting bracket
<b>V1-G-2M-PUR</b>	Single-ended female cordset, M12, 4-pin, PUR cable
<b>V1-W-2M-PUR</b>	Single-ended female cordset, M12, 4-pin, PUR cable



# Metal Face - Cylindrical Sensors



## Standard Technical Data

UL

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Diameter D	CCC	CSA
NMB1,5-8GM35-E0-FE	Flush	1.5	3-wire	NPN	Normally-open (NO)	DC	80	10	30	Fixed cable	35	8		■
NMB1,5-8GM35-E2-C-FE-150MM-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	DC	5	10	30	Fixed cable with M12 plug	35	8		■
NMB1,5-8GM35-E2-C-FE-150MM-V3	Flush	1.5	3-wire	PNP	Normally-open (NO)	DC	5	10	30	Fixed cable with M8 plug	35	8		■
NMB1,5-8GM35-E2-FE	Flush	1.5	3-wire	PNP	Normally-open (NO)	DC	80	10	30	Fixed cable	35	8		■
NMB1,5-8GM35-E2-FE-1M-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	DC	80	10	30	Fixed cable with M12 plug	35	8		■
NMB1,5-8GM50-E0-FE	Flush	1.5	3-wire	NPN	Normally-open (NO)	DC	80	10	30	Fixed cable	40	8		■
NMB1,5-8GM50-E2-C-FE-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	40	8		■
NMB1,5-8GM50-E2-FE	Flush	1.5	3-wire	PNP	Normally-open (NO)	DC	80	10	30	Fixed cable	40	8		■
NMB1,5-8GM50-E2-FE-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	DC	80	10	30	M12 connector plug	50	8		■
NMB1,5-8GM50-E2-FE-V3	Flush	1.5	3-wire	PNP	Normally-open (NO)	DC	80	10	30	M8 connector plug	50	8		■
NMB1,5-8GM65-E0-FE-V1	Flush	1.5	3-wire	NPN	Normally-open (NO)	DC	80	10	30	M12 connector plug	40	8		■
NMB1,5-8GM65-E0-FE-V3	Flush	1.5	3-wire	NPN	Normally-open (NO)	DC	80	10	30	M8 connector plug	40	8		■
NMB1,5-8GM65-E2-FE-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	DC	80	10	30	M12 connector plug	40	8		■
NMB1,5-8GM65-E2-FE-V3	Flush	1.5	3-wire	PNP	Normally-open (NO)	DC	80	10	30	M8 connector plug	40	8		■
NMB2-12GM40-Z0-C-FE-300MM-V1	Flush	2	2-wire	2-wire	Normally-open (NO)	DC	5	6	30	Fixed cable with M12 plug	40	12		■
NMB2-12GM40-Z3-C-FE-300MM-V1	Flush	2	2-wire	2-wire	Normally-open (NO)	DC	5	6	30	Fixed cable with M12 plug	40	12		■
NMB2-12GM55-E0-FE	Flush	2	3-wire	NPN	Normally-open (NO)	DC	100	10	30	Fixed cable	55	12		■
NMB2-12GM55-E2-FE	Flush	2	3-wire	PNP	Normally-open (NO)	DC	100	10	30	Fixed cable	55	12		■
NMB2-12GM65-E0-FE-V1	Flush	2	3-wire	NPN	Normally-open (NO)	DC	100	10	30	M12 connector plug	65	12		■
NMB2-12GM65-E0-NFE-V1	Flush	2	3-wire	NPN	Normally-open (NO)	DC	15	10	30	M12 connector plug	65	12		■
NMB2-12GM65-E2-FE-V1	Flush	2	3-wire	PNP	Normally-open (NO)	DC	100	10	30	M12 connector plug	65	12		■
NMB2-12GM65-E2-NFE-V1	Flush	2	3-wire	PNP	Normally-open (NO)	DC	15	10	30	M12 connector plug	65	12		■
NMB2-12GM65-E2-C-FE-V1	Flush	2	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	44	12		■
NMB2-12GM65-E3-FE-V1	Flush	2	3-wire	PNP	Normally-closed (NC)	DC	100	10	30	M12 connector plug	65	12		■
NMB2-12GM75-Z0-C-FE-V1	Flush	2	2-wire	2-wire	Normally-open (NO)	DC	5	6	30	M12 connector plug	75	12		■
NMB2-12GM75-Z3-C-FE-V1	Flush	2	2-wire	2-wire	Normally-open (NO)	DC	50	6	30	M12 connector plug	75	12		■
NMB2-12GM75-Z3-FE-V1	Flush	2	2-wire	2-wire	Normally-open (NO)	DC	50	6	30	M12 connector plug	75	12		■
NMB3-8GM35-E2	Flush	3	3-wire	PNP	Normally-open (NO)	DC	360	10	30	Fixed cable	35	8		■
NMB3-8GM35-E2-150MM-V1	Flush	3	3-wire	PNP	Normally-open (NO)	DC	360	10	30	Fixed cable with M12 plug	35	8		■
NMB3-8GM35-E2-150MM-V3	Flush	3	3-wire	PNP	Normally-open (NO)	DC	360	10	30	Fixed cable with M8 plug	35	8		■
NMB3-8GM50-E0-V3	Flush	3	3-wire	NPN	Normally-open (NO)	DC	360	10	30	M8 connector plug	50	8		■
NMB3-8GM50-E2-V1	Flush	3	3-wire	PNP	Normally-open (NO)	DC	360	10	30	M12 connector plug	50	8		■
NMB3-8GM50-E2-C-V1	Flush	3	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	50	8		■
NMB3-8GM50-E2-V3	Flush	3	3-wire	PNP	Normally-open (NO)	DC	360	10	30	M8 connector plug	50	8		■
NMB5-12GM45-Z9-C4-300MM-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	DC	1	6	30	Fixed cable with M12 plug	45	12		■
NMB5-12GM45-Z4-C4-300MM-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	DC	1	6	30	Fixed cable with M12 plug	45	12		■
NMB5-12GM55-E0	Flush	5	3-wire	NPN	Normally-open (NO)	DC	360	10	30	Fixed cable	55	12		■
NMB5-12GM55-E2	Flush	5	3-wire	PNP	Normally-open (NO)	DC	360	10	30	Fixed cable	55	12		■

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Diameter D	CCC	CSA
NMB5-12GM65-E0-V1	Flush	5	3-wire	NPN	Normally-open (NO)	DC	360	10	30	M12 connector plug	65	12		
NMB5-12GM65-E2-V1	Flush	5	3-wire	PNP	Normally-open (NO)	DC	360	10	30	M12 connector plug	65	12		
NMB5-12GM65-E2-C-V1	Flush	5	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	65	12		
NMB5-12GM65-E2-C4-V1	Flush	5	3-wire	PNP	Normally-open (NO)	DC	1	10	30	M12 connector plug	65	12		
NMB5-12GM65-E3-V1	Flush	5	3-wire	PNP	Normally-closed (NC)	DC	360	10	30	M12 connector plug	65	12		
NMB5-18GM55-Z3-C-FE-300MM-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	DC	5	6	30	Fixed cable with M12 plug	55	18		
NMB5-18GM65-E2-C-FE-V1	Flush	5	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	65	18		
NMB5-18GM55-E0-FE	Flush	5	3-wire	NPN	Normally-open (NO)	DC	15	10	30	Fixed cable	55	18		
NMB5-18GM55-E2-FE	Flush	5	3-wire	PNP	Normally-open (NO)	DC	15	10	30	Fixed cable	55	18		
NMB5-18GM55-Z0-C-FE-300MM-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	DC	5	6	30	Fixed cable with M12 plug	55	18		
NMB5-18GM65-E0-FE-V1	Flush	5	3-wire	NPN	Normally-open (NO)	DC	15	10	30	M12 connector plug	50	18		
NMB5-18GM65-E2-FE-V1	Flush	5	3-wire	PNP	Normally-open (NO)	DC	15	10	30	M12 connector plug	50	18		
NMB5-18GM65-E2-NFE-V1	Flush	5	3-wire	PNP	Normally-open (NO)	DC	30	10	30	M12 connector plug	65	18		
NMB5-18GM65-E3-FE-V1	Flush	5	3-wire	PNP	Normally-closed (NC)	DC	15	10	30	M12 connector plug	65	18		
NMB5-18GM65-Z0-FE-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	DC	15	6	30	M12 connector plug	65	18		
NMB5-18GM65-Z0-NFE-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	DC	30	6	30	M12 connector plug	65	18		
NMB5-18GM65-Z3-FE-V1	Flush	5	2-wire	2-wire	Normally-open (NO)	DC	15	6	30	M12 connector plug	65	18		
NMB5-18GM80-US-FE	Flush	5	2-wire	2-wire	Normally-open (NO)	AC/DC	15	20	300	Fixed cable	80	18		
NMB5-18GM85-US-FE-V12	Flush	5	2-wire	2-wire	Normally-open (NO)	AC/DC	15	20	300	1/2 inch connector plug	90	18		
NMB6-12GH50-E2	Flush	6	3-wire	PNP	Normally-open (NO)	DC	600	10	30	Fixed cable	69	12		
NMB6-12GH50-E2-V1	Flush	6	3-wire	PNP	Normally-open (NO)	DC	600	10	30	M12 connector plug	60	12		
NMB8-30GM55-E0-FE	Flush	8	3-wire	NPN	Normally-open (NO)	DC	10	10	30	Fixed cable	55	30		
NMB8-30GM55-E2-FE	Flush	8	3-wire	PNP	Normally-open (NO)	DC	10	10	30	Fixed cable	55	30		
NMB8-30GM55-Z0-C-FE-300MM-V1	Flush	8	2-wire	2-wire	Normally-open (NO)	DC	5	6	30	Fixed cable with M12 plug	55	30		
NMB8-30GM55-Z3-C-FE-300MM-V1	Flush	8	2-wire	2-wire	Normally-open (NO)	DC	5	6	30	Fixed cable with M12 plug	55	30		
NMB8-30GM65-E0-FE-V1	Flush	8	3-wire	NPN	Normally-open (NO)	DC	10	10	30	M12 connector plug	65	30		
NMB8-30GM65-E2-FE-V1	Flush	8	3-wire	PNP	Normally-open (NO)	DC	10	10	30	M12 connector plug	65	30		
NMB8-30GM65-E2-C-FE-V1	Flush	8	3-wire	PNP	Normally-open (NO)	DC	2	10	30	M12 connector plug	40	30		
NMB8-30GM65-E2-NFE-V1	Flush	8	3-wire	PNP	Normally-open (NO)	DC	10	10	30	M12 connector plug	65	30		
NMB8-30GM65-E2-C4-V1	Flush	8	2-wire	2-wire	Normally-open (NO)	DC	10	6	30	M12 connector plug	65	30		
NMB8-30GM85-US-FE-V12	Flush	8	2-wire	2-wire	Normally-open (NO)	AC/DC	10	20	300	1/2 inch connector plug	70	30		
NMB8-30GM85-US-FE-V93	Flush	8	2-wire	2-wire	Normally-open (NO)	AC/DC	10	20	300	7/8 inch connector plug	71	30		
NMB10-18GH50-E2	Flush	10	3-wire	PNP	Normally-open (NO)	DC	300	10	30	Fixed cable	70	18		
NMB10-18GH50-E2-V1	Flush	10	3-wire	PNP	Normally-open (NO)	DC	300	10	30	M12 connector plug	63.5	18		
NMB10-18GM55-E2	Flush	10	3-wire	PNP	Normally-open (NO)	DC	240	10	30	Fixed cable	55	18		
NMB10-18GM55-Z4-C4-300MM-V1	Flush	10	2-wire	2-wire	Normally-open (NO)	DC	1	6	30	Fixed cable with M12 plug	55	18		
NMB10-18GM55-Z9-C4-300MM-V1	Flush	10	2-wire	2-wire	Normally-open (NO)	DC	1	6	30	Fixed cable with M12 plug	55	18		
NMB10-18GM65-E2-V1	Flush	10	3-wire	PNP	Normally-open (NO)	DC	240	10	30	M12 connector plug	65	18		
NMB10-18GM65-E2-C-V1	Flush	10	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	65	18		
NMB10-18GM65-E2-C4-V1	Flush	10	3-wire	PNP	Normally-open (NO)	DC	1	10	30	M12 connector plug	65	18		
NMB10-18GM65-E3-V1	Flush	10	3-wire	PNP	Normally-closed (NC)	DC	240	10	30	M12 connector plug	65	18		
NMB10-30GM65-Z0-NFE-V1	Flush	10	2-wire	2-wire	Normally-open (NO)	DC	5	6	30	M12 connector plug	65	30		
NMB15-30GM55-E0	Flush	15	3-wire	NPN	Normally-open (NO)	DC	150	10	30	Fixed cable	55	30		
NMB15-30GM55-E2	Flush	15	3-wire	PNP	Normally-open (NO)	DC	150	10	30	Fixed cable	55	30		
NMB15-30GM55-Z4-C4-300MM-V1	Flush	15	2-wire	2-wire	Normally-open (NO)	DC	1	6	30	Fixed cable with M12 plug	55	30		
NMB15-30GM55-Z9-C4-300MM-V1	Flush	15	2-wire	2-wire	Normally-open (NO)	DC	1	6	30	Fixed cable with M12 plug	55	30		
NMB15-30GM65-E2-C-V1	Flush	15	3-wire	PNP	Normally-open (NO)	DC	5	10	30	M12 connector plug	65	30		
NMB15-30GM65-E2-C4-V1	Flush	15	3-wire	PNP	Normally-open (NO)	DC	1	10	30	M12 connector plug	65	30		
NMB15-30GM65-E0-V1	Flush	15	3-wire	NPN	Normally-open (NO)	DC	150	10	30	M12 connector plug	65	30		
NMB15-30GM65-E2-V1	Flush	15	3-wire	PNP	Normally-open (NO)	DC	150	10	30	M12 connector plug	65	30		
NMB15-30GM65-Z4-V1	Flush	15	2-wire	2-wire	Normally-open (NO)	DC	150	6	30	M12 connector plug	65	30		
NMB15-30GM65-Z9-V1	Flush	15	2-wire	2-wire	Normally-open (NO)	DC	150	6	30	M12 connector plug	65	30		
NMN10-12GH50-E2	Non-flush	10	3-wire	PNP	Normally-open (NO)	DC	400	10	30	Fixed cable	69	12		
NMN10-12GH50-E2-V1	Non-flush	10	3-wire	PNP	Normally-open (NO)	DC	400	10	30	M12 connector plug	60	12		
NMN20-18GH50-E2	Non-flush	20	3-wire	PNP	Normally-open (NO)	DC	200	10	30	Fixed cable	70	18		
NMN20-18GH50-E2-V1	Non-flush	20	3-wire	PNP	Normally-open (NO)	DC	200	10	30	M12 connector plug	63.5	18		

## Highlights

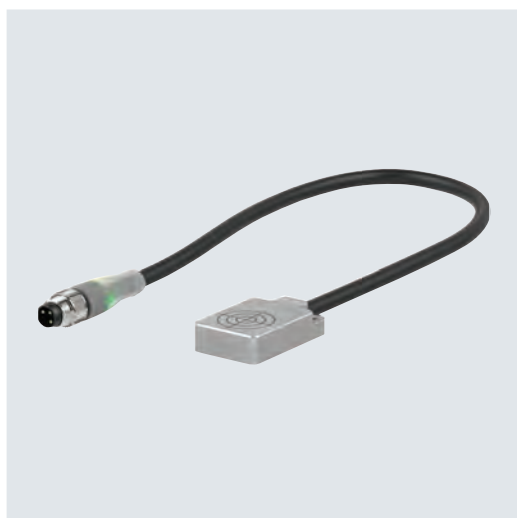
- A self-contained, stainless-steel housing with metal sensing face ensures corrosion resistance, impermeability, pressure resistance, wear resistance, durability, reliability, and increased plant availability
- C-series "Metal Face" sensors are resistant to weld splatter

## Brief Description

Highly resistant to heavy loads and forces. In extremely harsh industrial environments, inductive sensors are often exposed to mechanical stress that can shorten their life cycle. For example, when used in machine tools, sensors are subjected to high forces, abrasion, and aggressive media.



## Metal Face - Cube-Style Sensors



### Standard Technical Data

Type of installation	Flush
Detection range	6 mm
Output type	3-wire
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Housing length L	32 mm
Housing width W	20 mm
Housing height H	8 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Switching function	Switching frequency [Hz]	Connection type	Cable length [mm]	Cable material	UL
NMB6-F104M-E0-FE	NPN	Normally-open (NO)	20	Fixed cable	2000	PUR	■
NMB6-F104M-E2-C-FE-200MM-V1	PNP	Normally-open (NO)	2	Fixed cable with M12 plug	200	POC	
NMB6-F104M-E0-FE-200MM-V1	NPN	Normally-open (NO)	20	Fixed cable with M12 plug	200	PUR	■
NMB6-F104M-E2-C-FE-200MM-V3	PNP	Normally-open (NO)	2	Fixed cable with M8 plug	200	POC	
NMB6-F104M-E0-FE-200MM-V3	NPN	Normally-open (NO)	20	Fixed cable with M8 plug	200	PUR	■
NMB6-F104M-E2-C-NFE-200MM-V1	PNP	Normally-open (NO)	2	Fixed cable with M12 plug	200	POC	
NMB6-F104M-E1-FE	NPN	Normally-closed (NC)	20	Fixed cable	2000	PUR	■
NMB6-F104M-E2-C-NFE-200MM-V3	PNP	Normally-open (NO)	2	Fixed cable with M8 plug	200	POC	
NMB6-F104M-E1-FE-200MM-V3	NPN	Normally-closed (NC)	20	Fixed cable with M8 plug	200	PUR	■
NMB6-F104M-E2-FE	PNP	Normally-open (NO)	20	Fixed cable	2000	PUR	■
NMB6-F104M-E2-FE-200MM-V1	PNP	Normally-open (NO)	20	Fixed cable with M12 plug	200	PUR	■
NMB6-F104M-E2-FE-200MM-V3	PNP	Normally-open (NO)	20	Fixed cable with M8 plug	200	PUR	■
NMB6-F104M-E2-NFE	PNP	Normally-open (NO)	20	Fixed cable	2000	PUR	■
NMB6-F104M-E2-NFE-200MM-V1	PNP	Normally-open (NO)	20	Fixed cable with M12 plug	200	PUR	■
NMB6-F104M-E2-NFE-200MM-V3	PNP	Normally-open (NO)	20	Fixed cable with M8 plug	200	PUR	■
NMB6-F104M-E3-FE	PNP	Normally-closed (NC)	20	Fixed cable	2000	PUR	■
NMB6-F104M-E3-FE-200MM-V3	PNP	Normally-closed (NC)	20	Fixed cable with M8 plug	200	PUR	■

### Highlights

- Resistant to harsh ambient conditions such as humidity and mechanical shocks
- A self-contained, stainless-steel housing with metal sensing face ensures corrosion resistance, impermeability, pressure resistance, wear resistance, durability, reliability, and increased plant availability
- C-series "Metal Face" sensors are resistant to weld splatter
- Extended sensing range

### Brief Description

Resistant to heavy loads and forces. In extremely harsh industrial environments, inductive sensors are often exposed to mechanical stress that can shorten their life cycle. For example, when used in machine tools, high forces, abrasion, and aggressive media act on the sensors. For this type of application, Pepperl+Fuchs offers "Metal Face" sensors, which are perfectly protected under particularly adverse conditions thanks to their self-contained stainless steel housing with an active sensing face. All FE types are only suitable for ferromagnetic targets and all NFE types for non-ferromagnetic targets.

# Pressure-Resistant Sensors



Standard Technical Data	
Type of installation	Flush
Detection range	1.5 mm
Voltage type	DC
CSA	CSA
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Cable length [mm]	Cable material	Length L	Diameter D	CCC	ATEX	EAC
NCB1,5-18GM60-E2-D	3-wire	PNP	Normally-open (NO)	1500	10	60	Fixed cable	2000	PVC	57	18	■		
NCB1,5-18GM60-E2-D-V1	3-wire	PNP	Normally-open (NO)	1500	10	60	M12 connector plug			65	18	■		
NCB1,5-18GM60-E3-D	3-wire	PNP	Normally-closed (NC)	1500	10	60	Fixed cable	2000	PVC	57	18	■		
NJ1,5-18GM-N-D	2-wire	NAMUR	Normally-closed (NC)	400	8.2	8.2	Fixed cable	2000	PVC	50	18		■	■
NJ1,5-18GM-N-D-10M	2-wire	NAMUR	Normally-closed (NC)	400	8.2	8.2	Fixed cable	10000	PVC	50	18		■	■
NJ1,5-18GM-N-D-V1	2-wire	NAMUR	Normally-closed (NC)	400	8.2	8.2	M12 connector plug			35	18		■	■
NCB1,5-12GM40-E2-D-V1	3-wire	PNP	Normally-open (NO)	600	10	30	M12 connector plug			56	12			
NCB1,5-12GM45-E2-D-V1	3-wire	PNP	Normally-open (NO)	600	10	30	M12 connector plug			56	12			
NCB1,5-12GM60-E2-D-V1	3-wire	PNP	Normally-open (NO)	600	10	30	M12 connector plug			69	12			
NCB1,5-12GM70-E2-D-V1	3-wire	PNP	Normally-open (NO)	600	10	30	M12 connector plug			93	12			
NCB1,5-12GM85-E2-D-V1	3-wire	PNP	Normally-open (NO)	600	10	30	M12 connector plug			93	12			

## Highlights

- Extremely rugged design for pressures up to 1000 bar
- Optimized portfolio that is perfectly tailored to applications in hydraulic and pneumatic cylinders
- Different sensing ranges, output and connection options guarantee optimal application solutions

## Accessories

V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-N-2M-PUR	Single-ended female cordset, M12, 2-pin, NAMUR, PUR cable

## Brief Description

Pressure-resistant proximity sensors are typically used in applications involving high hydraulic and pneumatic pressures to detect components within the pressure range. The required pressure resistance is achieved by means of a ceramic front face that is embedded in the stainless steel housing. This enables flush assembly. These special sensors are mainly used, for example, to determine the end position of pistons in hydraulic and pneumatic cylinders. Some sensors in the Pepperl+Fuchs product range are designed for operating pressures of up to 500 bar and offer reliable protection against pressure peaks of up to 1000 bar. In addition, the portfolio offers variants with different operating distances, designs, and output and connection options that guarantee an optimal application solution.



# High-Temperature - Cylindrical Sensors



### Standard Technical Data

Voltage type	DC
Ambient temperature (min)	-25 °C
Ambient temperature (max)	100 °C

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Diameter D	ATEX	CSA	EAC	FM	UL
NBB1-8GS50-Z0-T	Flush	1	2-wire	2-wire	Normally-open (NO)	1500	15	34	Fixed cable	50	8					
NCB1,5-6,5M25-N0	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	Fixed cable	25	6.5	■	■	■		■
NCB1,5-6,5M25-N0-5M	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	Fixed cable	25	6.5	■	■	■		■
NCB1,5-6,5M25-N0-10M	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	Fixed cable	25	6.5	■	■	■		■
NCB1,5-6,5M25-N0-V1	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	M12 connector plug	25	6.5	■	■	■		■
NCB1,5-8GM25-N0	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	Fixed cable	25	8	■	■	■	■	■
NCB1,5-8GM25-N0-5M	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	Fixed cable	25	8	■	■	■		■
NCB1,5-8GM25-N0-10M	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	Fixed cable	25	8	■	■	■		■
NCB1,5-8GM25-N0-V1	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	M12 connector plug	48.5	8	■	■	■	■	■
NBB1,5-8GS30-E2-T	Flush	1.5	3-wire	PNP	Normally-open (NO)	1500	10	30	Fixed cable	34.5	8					■
NBB1,5-8GS40-E2-T-V3	Flush	1.5	3-wire	PNP	Normally-open (NO)	1500	10	30	M8 connector plug	45	8					
NCB1,5-12GM40-E2-D-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	600	10	30	M12 connector plug	56	12		■			■
NCB1,5-12GM45-E2-D-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	600	10	30	M12 connector plug	56	12		■			■
NCB1,5-12GM60-E2-D-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	600	10	30	M12 connector plug	69	12		■			■
NCB1,5-12GM70-E2-D-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	600	10	30	M12 connector plug	93	12		■			■
NCB1,5-12GM85-E2-D-V1	Flush	1.5	3-wire	PNP	Normally-open (NO)	600	10	30	M12 connector plug	93	12		■			■
NCB2-12GM35-N0-V1	Flush	2	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2	M12 connector plug	34	12	■	■	■	■	■
NCB2-12GK35-N0	Flush	2	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2	Fixed cable	35	12	■	■		■	■
NCB2-12GM35-N0	Flush	2	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2	Fixed cable	35	12	■	■	■	■	■
NCB2-12GM35-N0-5M	Flush	2	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2	Fixed cable	35	12	■	■	■	■	■
NCB2-12GM35-N0-10M	Flush	2	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2	Fixed cable	35	12	■	■	■	■	■
NCB2-12GM50-E2-T-V1	Flush	2	3-wire	PNP	Normally-open (NO)	1200	10	65	M12 connector plug	65	12					
NBB2-12GM60-E2-T	Flush	2	3-wire	PNP	Normally-open (NO)	1200	10	65	Fixed cable	56	12					■
NCB4-12GM40-N0	Flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2	Fixed cable	40	12	■	■	■	■	■
NCB4-12GM40-N0-5M	Flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2	Fixed cable	40	12	■	■	■	■	■
NCB4-12GM40-N0-10M	Flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2	Fixed cable	40	12	■	■	■	■	■
NCB4-12GM40-N0-V1	Flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2	M12 connector plug	40	12	■	■	■	■	■
NBB4-12GM30-E2-T-V1	Flush	4	3-wire	PNP	Normally-open (NO)	500	10	30	M12 connector plug	30	12		■			■
NCB5-18GK40-N0	Flush	5	2-wire	NAMUR	Normally-closed (NC)	400	8.2	8.2	Fixed cable	40	18	■	■		■	■
NBB5-18GM50-E2-T-V1	Flush	5	3-wire	PNP	Normally-open (NO)	800	10	30	M12 connector plug	69	18					
NBB10-30GM50-E2-T	Flush	10	3-wire	PNP	Normally-open (NO)	300	10	30	Fixed cable	54	30					
NBB10-30GM50-E2-TV1	Flush	10	3-wire	PNP	Normally-open (NO)	300	10	65	M12 connector plug	69	30			■		
NBB10-30GM50-Z0-T	Flush	10	2-wire	2-wire	Normally-open (NO)	300	15	30	Fixed cable	54	30					
NCB10-30GK40-N0	Flush	10	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2	Fixed cable	40	30	■	■		■	■
NCB10-30GM40-N0	Flush	10	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2	Fixed cable	40	30	■	■	■	■	■
NCB10-30GM40-N0-5M	Flush	10	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2	Fixed cable	40	30	■	■	■		■
NCB10-30GM40-N0-10M	Flush	10	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2	Fixed cable	40	30	■	■	■	■	■
NCB10-30GM40-N0-V1	Flush	10	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2	M12 connector plug	55	30	■	■	■		■

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Diameter D	ATEX	CSA	EAC	FM	UL
NJ10-30GK-E-T	Flush	10	3-wire	NPN	Normally-open (NO)	300	10	30	Fixed cable	80	30					
NJ10-30GK-E2-T	Flush	10	3-wire	PNP	Normally-open (NO)	300	10	30	Fixed cable	80	30					
NCB15-30GM40-N0	Semi-flush	15	2-wire	NAMUR	Normally-closed (NC)	450	8.2	8.2	Fixed cable	40	30					
NCB15-30GM40-N0-5M	Semi-flush	15	2-wire	NAMUR	Normally-closed (NC)	450	8.2	8.2	Fixed cable	40	30					
NCB15-30GM40-N0-10M	Semi-flush	15	2-wire	NAMUR	Normally-closed (NC)	450	8.2	8.2	Fixed cable	40	30					
NCB15-30GM40-N0-V1	Semi-flush	15	2-wire	NAMUR	Normally-closed (NC)	450	8.2	8.2	M12 connector plug	40	30					
NBN4-12GM40-E2-T-V1	Non-flush	4	3-wire	PNP	Normally-open (NO)	800	10	30	M12 connector plug	37	12					
NBN4-12GM60-E2-T-V1	Non-flush	4	3-wire	PNP	Normally-open (NO)	800	10	30	M12 connector plug	56	12					
NBN8-18GM50-E2-T	Non-flush	8	3-wire	PNP	Normally-open (NO)	300	10	30	Fixed cable	59	18					
NBN8-18GM50-E2-T-V1	Non-flush	8	3-wire	PNP	Normally-open (NO)	300	10	30	M12 connector plug	69	18					
NBN15-30GM50-E3-T-V1	Non-flush	15	3-wire	PNP	Normally-closed (NC)	300	10	30	M12 connector plug	69	30					
NJ15-30GK-E-T	Non-flush	15	3-wire	NPN	Normally-open (NO)	300	10	30	Fixed cable	80	30					
NJ15-30GK-E2-T	Non-flush	15	3-wire	PNP	Normally-open (NO)	300	10	30	Fixed cable	80	30					

## Highlights

- Established and proven solution for applications in the automotive industry
- Reliable at high temperatures up to 250 °C

Accessories	
BF 12	Mounting adapter, 12 mm
BF 18	Mounting adapter, 18 mm
BF 30	Mounting adapter, 30 mm
BF 6,5	Mounting adapter, 6.5 mm
BF 8	Mounting adapter, 8 mm
EXG-08	Quick-mounting bracket with fixed stop
EXG-12	Quick-mounting bracket with fixed stop
EXG-18	Quick-mounting bracket with fixed stop



# High-Temperature - Cube-Style Sensors



## Standard Technical Data

Voltage type	DC
--------------	----

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	SIL	Connection type	Temp. (min)	Temp. (max)	Length L	Width W	Height H	ATEX	CSA	EAC	FM	UL
NCB2-V3-N0	Flush	2	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	2	Fixed cable	-25	100	16	27.8	10.2	■	■	■	■	■
NCB2-V3-N0-2M	Flush	2	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	-25	100	16	27.8	10.2	■	■	■	■	■
FJ7-N	Flush	7	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	-25	100	25	50	24	■				■
NBB15-U1-A0-T	Flush	15	4-wire		Complementary	560	10	30		Terminal compartment	-25	100	118	40	40					■
NBB15-U1-A2-T	Flush	15	4-wire		Complementary	560	10	30		Terminal compartment	-25	100	118	40	40			■		■
NBB15-U1-A2-T-V1	Flush	15	4-wire		Complementary	560	10	30		M12 connector plug	-25	100	118	40	40					■
NBB15-U1K-N0	Flush	15	2-wire	NAMUR	Normally-closed (NC)	400	8.2	8.2		Terminal compartment	-25	100	118	40	40	■				■
NBB15-U2K-N0	Flush	15	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Terminal compartment	-25	100	118	40	40	■				■
NBB15-U4-A2-T	Flush	15	4-wire	PNP	Complementary	560	10	30		Terminal compartment	-25	100	118	40	40					■
NBB15-U4K-N0	Flush	15	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Terminal compartment	-25	100	118	40	40	■				■
NBB15-U4K-N0-V1	Flush	15	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		M12 connector plug	-25	100	118	40	40	■				■
NCB15+U4+N0	Flush	15	2-wire	NAMUR	Normally-closed (NC)	400	8.2	8.2		Terminal compartment	-25	100	118	40	40	■	■			■
NCB15+U4+N0-V1	Flush	15	2-wire	NAMUR	Normally-closed (NC)	400	8.2	8.2		M12 connector plug	-25	100	118	40	40	■	■			■
NCB20-L2-N0-V1	Flush	20		NAMUR	Normally-closed (NC)	300	8.2	8.2		M12 connector plug	-25	100	67	40	40	■		■		■
NBB20-U1K-N0	Flush	20	2-wire	NAMUR	Normally-closed (NC)	250	8.2	8.2		Terminal compartment	-25	100	118	40	40	■		■		■
NBB20-U4K-N0	Flush	20	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Terminal compartment	-25	100	118	40	40	■				■
NBB20-L2-A2-T-V1	Flush	20	4-wire		Complementary	440	10	30		M12 connector plug	-25	100	67	40	40			■		■
NBB20-L2M-A2-T-V1	Flush	20	4-wire		Complementary	440	10	30		M12 connector plug	-25	100	67	40	40			■		■
NBB20-U1-A0-T	Flush	20	4-wire		Complementary	440	10	30		Terminal compartment	-25	100	118	40	40					■
NBB20-U1-A2-T	Flush	20	4-wire		Complementary	440	10	30		Terminal compartment	-25	100	118	40	40			■		■
NBB20-U1-A2-T-V1	Flush	20	4-wire		Complementary	440	10	30		M12 connector plug	-25	100	118	40	40			■		■
NBB20-U1-E2-T-V1	Flush	20	3-wire		Normally-open (NO)	440	10	30		M12 connector plug	-25	100	118	40	40					■
NBB20-U2-A2-T	Flush	20	4-wire		Complementary	440	10	30		Terminal compartment	-25	100	118	40	40					■
NBB20-U4-A0-T	Flush	20	4-wire		Complementary	440	10	30		Terminal compartment	-25	100	118	40	40					■
NBB20-U4-A2-T	Flush	20	4-wire		Complementary	440	10	30		Terminal compartment	-25	100	118	40	40					■
NCB40-FP-N0-P4	Flush	40	2-wire	NAMUR	Normally-closed (NC)	80	8.2	8.2		Terminal compartment	-25	100	83	83	40	■	■	■	■	■
NCB40-FP-N0-P1-V1	Flush	40	2-wire	NAMUR	Normally-closed (NC)	80	8.2	8.2		M12 connector plug	-25	100	83	83	40	■	■	■	■	■
NCB40-FP-N0-P1	Flush	40	2-wire	NAMUR	Normally-closed (NC)	80	8.2	8.2		Terminal compartment	-25	100	83	83	40	■	■	■	■	■
NCB40-FP-A2-T-P1	Flush	40	4-wire	PNP	Complementary	80	10	30		Terminal compartment	-40	100	80	80	40			■		■
NCB40-FP-A2-T-P1-V1	Flush	40	4-wire	PNP	Complementary	80	10	30		M12 connector plug	-25	100	80	80	40			■		■
NCN20-F35-A2-250-10M-V1	Flush mountable	20	4-wire	PNP	Complementary	20	10	30		M12 connector plug	0	250	56	44	40			■		■
NCN20-F35-A2-250-20M-V1	Flush mountable	20	4-wire	PNP	Complementary	20	10	30		M12 connector plug	0	250	56	44	40			■		■
NCN25-F35-A2-250-15M-V1	Flush mountable	25	4-wire	PNP	Complementary	20	10	30		M12 connector plug	0	250	56	44	40					■

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	SIL	Connection type	Temp. (min)	Temp. max)	Length L	Width W	Height H	ATEX	CSA	EAC	FM	UL
<b>NCN25-F35-A2-250-V1</b>	Flush mountable	25	4-wire	PNP	Complementary	20	10	30		M12 connector plug	0	250	56	44	40					■
<b>NBN30-U1-A2-T</b>	Non-flush	30	4-wire		Complementary	230	10	30		Terminal compartment	-25	100	118	40	40					■
<b>NBN30-U1-A2-T-V1</b>	Non-flush	30	4-wire		Complementary	230	10	30		M12 connector plug	-25	100	118	40	40					■
<b>NBN30-U1K-N0</b>	Non-flush	30	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		Terminal compartment	-25	100	118	40	40	■				■
<b>NBN30-U4K-N0</b>	Non-flush	30	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		Terminal compartment	-25	100	118	40	40	■				■
<b>NBN30-U4K-N0-V1</b>	Non-flush	30	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		M12 connector plug	-25	100	118	40	40	■				■
<b>NBN40-U1-A2-T</b>	Non-flush	40	4-wire	PNP	Complementary	180	10	30		Terminal compartment	-25	100	118	40	40				■	■
<b>NBN40-U1-A2-T-V1</b>	Non-flush	40	4-wire		Complementary	180	10	30		M12 connector plug	-25	100	118	40	40					■
<b>NBN40-U1L-A0-T</b>	Non-flush	40	4-wire	NPN	Complementary	100	10	60		Terminal compartment	-25	100	128	55	55					■
<b>NBN40-U1L-A2-T</b>	Non-flush	40	4-wire	PNP	Complementary	100	10	60		Terminal compartment	-25	100	128	55	55					■
<b>NBN40-U1K-N0</b>	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		Terminal compartment	-25	100	118	40	40	■		■		■
<b>NBN40-U1K-N0-V1</b>	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		M12 connector plug	-25	100	118	40	40	■		■		■
<b>NBN40-U1LK-N0</b>	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		Terminal compartment	-25	100	128	55	55	■				■
<b>NBN40-U1LK-N0-V1</b>	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		M12 connector plug	-25	100	128	55	55	■				■
<b>NBN40-U2-A2-T</b>	Non-flush	40	4-wire		Complementary	180	10	30		Terminal compartment	-25	100	118	40	40					■
<b>NBN40-U2K-N0</b>	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		Terminal compartment	-25	100	118	40	40	■				■
<b>NBN40-U4K-N0</b>	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		Terminal compartment	-25	100	118	40	40	■				■
<b>NBN40-U4K-N0-V1</b>	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		M12 connector plug	-25	100	118	40	40	■				■
<b>NBN40-U4LK-N0</b>	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		Terminal compartment	-25	100	128	55	55	■				■
<b>NBN40-U4LK-N0-V1</b>	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		M12 connector plug	-25	100	128	55	55	■				■

## Highlights

- Established and proven solution for applications in the automotive industry
- Reliable at high temperatures up to 250 °C

Accessories	
<b>KCD2-E2L</b>	Sensor output interface terminal with lead breakage detection
<b>KCD2-SR-Ex1.LB</b>	24 V DC
<b>MH 02-L</b>	Mounting aid
<b>MH 04-2057B</b>	Mounting aid for VariKont and +U1+ sensors
<b>MH 04-2681F</b>	Mounting aid for VariKont, +U1+, and +U9* sensors
<b>MHW 01</b>	Modular mounting bracket
<b>V1-G-2M-PUR</b>	Single-ended female cordset, M12, 4-pin, PUR cable
<b>V1-M20-80</b>	Receptacle, M12/M20; plastic version



# Safety Sensors with NAMUR Output and Ex Approval



Standard Technical Data	
Output type	2-wire
Output type	NAMUR with safety function
Voltage type	DC
Operating voltage (min)	8.2 V
Operating voltage (max)	8.2 V
SIL	3
ATEX	■
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

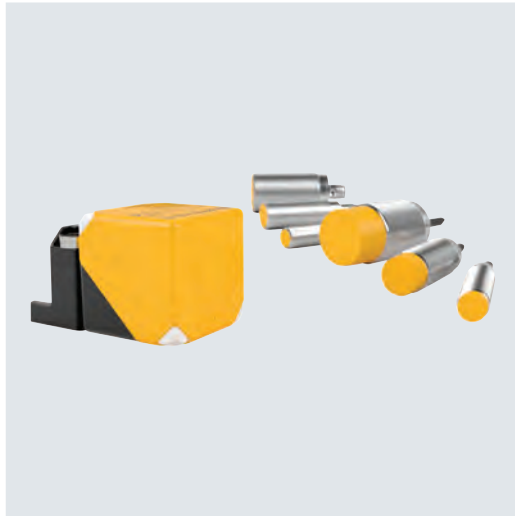
Model number	Type of installation	Detection range [mm]	Switching function	Switching frequency [Hz]	Connection type	Cable length [mm]	Cable material	Length L	Width W	Height H	Diameter D	CSA	EAC	FM
NJ2-11-SN-G	Flush	2	Normally-closed (NC)	3000	Fixed cable	2000	Silicone	30			14		■	■
NJ2-11-SN-G-5M	Flush	2	Normally-closed (NC)	3000	Fixed cable	5000	Silicone	30			14		■	■
NJ2-11-SN-G-10M	Flush	2	Normally-closed (NC)	3000	Fixed cable	10000	Silicone	30			14		■	
NJ2-12GK-SN	Flush	2	Normally-closed (NC)	2000	Fixed cable	2000	Silicone	34			12		■	■
NJ2-12GK-SN-0,3M	Flush	2	Normally-closed (NC)	2000	Fixed cable	3000	Silicone	34			12	■	■	■
NJ2-12GK-SN-10M	Flush	2	Normally-closed (NC)	2000	Fixed cable	10000	Silicone	34			12		■	■
NJ3-18GK-S1N	Flush	3	Normally-open (NO)	200	Fixed cable	2000	Silicone	39			18		■	■
NJ3-18GK-S1N-5M	Flush	3	Normally-open (NO)	200	Fixed cable	5000	Silicone	39			18		■	■
NJ3-18GK-S1N-10M	Flush	3	Normally-open (NO)	200	Fixed cable	10000	Silicone	39			18		■	
NJ4-12GK-SN	Non-flush	4	Normally-closed (NC)	1500	Fixed cable	2000	Silicone	34			12		■	■
NJ4-12GK-SN-15M	Non-flush	4	Normally-closed (NC)	1500	Fixed cable	5000	Silicone	34			12		■	■
NJ5-18GK-SN	Flush	5	Normally-closed (NC)	500	Fixed cable	2000	Silicone	39			18		■	■
NJ5-18GK-SN-5M	Flush	5	Normally-closed (NC)	500	Fixed cable	5000	Silicone	39			18		■	■
NJ5-18GK-SN-10M	Flush	5	Normally-closed (NC)	500	Fixed cable	10000	Silicone	39			18		■	■
NJ5-30GK-S1N	Flush	5	Normally-open (NO)	150	Fixed cable	2000	Silicone	40			30		■	■
NJ5-30GK-S1N-5M	Flush	5	Normally-open (NO)	150	Fixed cable	5000	Silicone	40			30		■	■
NJ5-30GK-S1N-10M	Flush	5	Normally-open (NO)	150	Fixed cable	10000	Silicone	40			30		■	
NJ6-22-SN	Flush	6	Normally-closed (NC)	2000	Fixed cable	2000	Silicone	35			22			■
NJ6-22-SN-10M	Flush	6	Normally-closed (NC)	2000	Fixed cable	10000	Silicone	35			22			
NJ6-22-SN-G	Flush	6	Normally-closed (NC)	2000	Fixed cable	2000	Silicone	35			28.3			■
NJ6-22-SN-G-3M	Flush	6	Normally-closed (NC)	2000	Fixed cable	3000	Silicone	35			28.3			
NJ6-22-SN-G-10M	Flush	6	Normally-closed (NC)	2000	Fixed cable	10000	Silicone	35			28.3			
NJ8-18GK-SN	Non-flush	8	Normally-closed (NC)	200	Fixed cable	2000	Silicone	39			18		■	■
NJ8-18GK-SN-10M	Non-flush	8	Normally-closed (NC)	200	Fixed cable	10000	Silicone	39			18		■	■
NJ10-30GK-SN	Flush	10	Normally-closed (NC)	300	Fixed cable	2000	Silicone	40			30		■	■
NJ10-30GK-SN-10M	Flush	10	Normally-closed (NC)	300	Fixed cable	10000	Silicone	40			30		■	
NJ15-30GK-SN	Non-flush	15	Normally-closed (NC)	100	Fixed cable	2000	Silicone	40			30		■	■
NJ15-30GK-SN-5M	Non-flush	15	Normally-closed (NC)	100	Fixed cable	5000	Silicone	40			30		■	
NJ40-FP-SN-P1	Non-flush	40	Normally-closed (NC)	100	Terminal compartment			80	80	40		■	■	
SJ2-SN		2	Normally-closed (NC)	5000	Stranded cable	500		8	15	13			■	■
SJ3,5-S1N		3.5	Normally-open (NO)	2500	Stranded cable	500		19.5	10	15			■	■
SJ3,5-SN		3.5	Normally-closed (NC)	3000	Stranded cable	500		19.5	10	15			■	■

## Brief Description

These safety sensors require a qualified safety switch amplifier for operation in safety applications.

Accessories	
BF 12	Mounting adapter, 12 mm
BF 18	Mounting adapter, 18 mm
BF 30	Mounting adapter, 30 mm
EXG-12	Quick-mounting bracket with fixed stop

# Safety Sensors with OSSD Output



## Standard Technical Data

Output type	4-wire
Output type	PNP
Switching function	Normally-open (NO)
Voltage type	DC
Operating voltage (min)	18 V
Operating voltage (max)	30 V
SIL	2
Performance level (PL)	PL d
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Switching frequency [Hz]	Connection type	Cable length [mm]	Cable material	Length L	Width W	Height H	Diameter D	E1
NSB2-12GH45-2E2-V1-M1-S2D2	Flush	2	30	M12 connector plug			65			12	■
NSB2-12GH45-2E2-V1-S2D2	Flush	2	30	M12 connector plug			65			12	
NSB2-12GM45-2E2-V1-M1-S2D2	Flush	2	30	M12 connector plug			65			12	■
NSB2-12GM45-2E2-V1-S2D2	Flush	2	30	M12 connector plug			65			12	
NSB2-12GH50-2E2-M1-S2D2	Flush	2	30	Fixed cable	2000	PUR	60			12	■
NSB2-12GH50-2E2-PUR-S2D2	Flush	2	30	Fixed cable	2000	PUR	60			12	
NSB2-12GH50-2E2-S2D2	Flush	2	30	Fixed cable	2000	PVC	60			12	
NSB2-12GM50-2E2-M1-S2D2	Flush	2	30	Fixed cable	2000	PUR	60			12	■
NSB2-12GM50-2E2-PUR-S2D2	Flush	2	30	Fixed cable	2000	PUR	60			12	
NSB2-12GM50-2E2-S2D2	Flush	2	30	Fixed cable	2000	PVC	60			12	
NSB5-18GH45-2E2-V1-S2D2	Flush	5	30	M12 connector plug			65			18	
NSB5-18GH45-2E2-V1-M1-S2D2	Flush	5	30	M12 connector plug			65			18	■
NSB5-18GM45-2E2-V1-M1-S2D2	Flush	5	30	M12 connector plug			65			18	■
NSB5-18GH50-2E2-S2D2	Flush	5	30	Fixed cable	2000	PVC	60			18	
NSB5-18GH50-2E2-M1-S2D2	Flush	5	30	Fixed cable	2000	PUR	60			18	■
NSB5-18GH50-2E2-PUR-S2D2	Flush	5	30	Fixed cable	2000	PUR	60			18	
NSB5-18GM45-2E2-V1-S2D2	Flush	5	30	M12 connector plug			65			18	
NSB5-18GM50-2E2-M1-S2D2	Flush	5	30	Fixed cable	2000	PUR	60			18	■
NSB5-18GM50-2E2-PUR-S2D2	Flush	5	30	Fixed cable	2000	PUR	60			18	
NSB5-18GM50-2E2-S2D2	Flush	5	30	Fixed cable	2000	PVC	60			18	
NSB15-L2M-2E2-V1-S2D2	Flush	15	10	M12 connector plug			67	40	40		
NSN4-12GH45-2E2-V1-M1-S2D2	Non-flush	4	30	M12 connector plug			65			12	■
NSN4-12GH45-2E2-V1-S2D2	Non-flush	4	30	M12 connector plug			65			12	
NSN4-12GM45-2E2-V1-S2D2	Non-flush	4	30	M12 connector plug			65			12	
NSN4-12GM45-2E2-V1-M1-S2D2	Non-flush	4	30	M12 connector plug			65			12	■
NSN4-12GH50-2E2-M1-S2D2	Non-flush	4	30	Fixed cable	2000	PUR	60			12	■
NSN4-12GH50-2E2-PUR-S2D2	Non-flush	4	30	Fixed cable	2000	PUR	60			12	
NSN4-12GH50-2E2-S2D2	Non-flush	4	30	Fixed cable	2000	PVC	60			12	
NSN4-12GM50-2E2-S2D2	Non-flush	4	30	Fixed cable	2000	PVC	60			12	
NSN4-12GM50-2E2-M1-S2D2	Non-flush	4	30	Fixed cable	2000	PUR	60			12	■
NSN4-12GM50-2E2-PUR-S2D2	Non-flush	4	30	Fixed cable	2000	PUR	60			12	
NSN8-18GH45-2E2-V1-M1-S2D2	Non-flush	8	30	M12 connector plug			65			18	■
NSN8-18GH45-2E2-V1-S2D2	Non-flush	8	30	M12 connector plug			65			18	
NSN8-18GM45-2E2-V1-S2D2	Non-flush	8	30	M12 connector plug			65			18	
NSN8-18GM45-2E2-V1-M1-S2D2	Non-flush	8	30	M12 connector plug			65			18	■
NSN8-18GH50-2E2-M1-S2D2	Non-flush	8	30	Fixed cable	2000	PUR	60			18	■
NSN8-18GH50-2E2-PUR-S2D2	Non-flush	8	30	Fixed cable	2000	PUR	60			18	
NSN8-18GH50-2E2-S2D2	Non-flush	8	30	Fixed cable	2000	PVC	60			18	
NSN8-18GM50-2E2-M1-S2D2	Non-flush	8	30	Fixed cable	2000	PUR	60			18	■
NSN8-18GM50-2E2-PUR-S2D2	Non-flush	8	30	Fixed cable	2000	PUR	60			18	
NSN8-18GM50-2E2-S2D2	Non-flush	8	30	Fixed cable	2000	PVC	60			18	
NSN20-L2M-2E2-V1-S2D2	Non-flush	20	10	M12 connector plug			67	40	40		





# Sensors for Hazardous Areas - Cylindrical Sensors



Standard Technical Data	
Voltage type	DC

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of Installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	SIL	Connection type	Length L	Diameter D	CCC	ATEX	CSA	EAC	FM	UL
NCB1,5-6,5M25-N0	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	25	6.5						
NCB1,5-6,5M25-N0-5M	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	25	6.5						
NCB1,5-6,5M25-N0-10M	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	25	6.5						
NCB1,5-6,5M25-N0-V1	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		M12 connector plug	25	6.5						
NCB1,5-8GM25-N0	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	25	8						
NCB1,5-8GM25-N0-5M	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	25	8						
NCB1,5-8GM25-N0-10M	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	25	8						
NCB1,5-8GM25-N0-V1	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		M12 connector plug	48.5	8						
NBB2-8GM40-E2-V1-3G-3D	Flush	2	3-wire	PNP	Normally-open (NO)	1500	10	30		M12 connector plug	40	8						
NCB2-12GM35-N0-V1	Flush	2	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2		M12 connector plug	34	12						
NCB2-12GK35-N0	Flush	2	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2		Fixed cable	35	12						
NCB2-12GM35-N0	Flush	2	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2		Fixed cable	35	12						
NCB2-12GM35-N0-5M	Flush	2	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2		Fixed cable	35	12						
NCB2-12GM35-N0-10M	Flush	2	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2		Fixed cable	35	12						
NCB2-12GM40-E2-3G-3D	Flush	2	3-wire	PNP	Normally-open (NO)	2500	10	30		Fixed cable	40	12						
NCB2-12GM40-E2-5M-3G-3D	Flush	2	3-wire	PNP	Normally-open (NO)	2500	10	30		Fixed cable	40	12						
NCB2-12GM40-Z0-V1-3G-3D	Flush	2	2-wire	2-wire	Normally-open (NO)	800	5	60		M12 connector plug	40	12						
NBB2-12GM40-Z0-3G-3D	Flush	2	2-wire	2-wire	Normally-open (NO)	1000	5	60		Fixed cable	40	12						
NBB2-12GM60-A2-3G-3D	Flush	2	4-wire	PNP	Complementary	1000	10	30		Fixed cable	60	12						
NBB4-12GM50-E2-3G-3D	Flush	4	3-wire	PNP	Normally-open (NO)	1000	10	30		Fixed cable	50	12						
NBB4-12GM50-E2-V1-3G-3D	Flush	4	3-wire	PNP	Normally-open (NO)	1000	10	30		M12 connector plug	49	12						
NCB4-12GM40-N0	Flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		Fixed cable	40	12						
NCB4-12GM40-N0-5M	Flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		Fixed cable	40	12						
NCB4-12GM40-N0-10M	Flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		Fixed cable	40	12						
NCB4-12GM40-N0-V1	Flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		M12 connector plug	40	12						
NCB5-18GM40-N0	Flush	5	2-wire	NAMUR	Normally-closed (NC)	400	8.2	8.2		Fixed cable	40	18						
NCB5-18GM40-N0-10M	Flush	5	2-wire	NAMUR	Normally-closed (NC)	400	8.2	8.2		Fixed cable	40	18						
NCB5-18GM40-N0-5M	Flush	5	2-wire	NAMUR	Normally-closed (NC)	400	8.2	8.2		Fixed cable	40	18						
NCB5-18GK40-N0	Flush	5	2-wire	NAMUR	Normally-closed (NC)	400	8.2	8.2		Fixed cable	40	18						
NCB5-18GM40-N0-V1	Flush	5	2-wire	NAMUR	Normally-closed (NC)	400	8.2	8.2		M12 connector plug	40	18						
NCB5-18GM40-Z0-3G-3D	Flush	5	2-wire	2-wire	Normally-open (NO)	350	5	60		Fixed cable	40	18						
NCB5-18GM40-Z0-3G-3D-10M	Flush	5	2-wire	2-wire	Normally-open (NO)	350	5	60		Fixed cable	40	18						
NCB5-18GM40-Z0-V1-3G-3D	Flush	5	2-wire	2-wire	Normally-open (NO)	350	5	60		M12 connector plug	40	18						
NCB5-18GM40-Z1-3G-3D	Flush	5	2-wire	2-wire	Normally-closed (NC)	350	5	60		Fixed cable	40	18						
NBB5-18GM60-A2-V1-3G-3D	Flush	5	4-wire	PNP	Complementary	800	10	30		M12 connector plug	60	18						
NCB8-18GM40-N0	Flush	8	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		Fixed cable	40	18						
NCB8-18GM40-N0-5M	Flush	8	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		Fixed cable	40	18						
NCB8-18GM40-N0-10M	Flush	8	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		Fixed cable	40	18						
NCB8-18GM40-N0-V1	Flush	8	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		M12 connector plug	40	18						
NBB8-18GM50-E2-3G-3D	Flush	8	3-wire	PNP	Normally-open (NO)	500	10	30		Fixed cable	50	18						

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	SIL	Connection type	Length L	Diameter D	CCC	ATEX	CSA	EAC	FM	UL
NBB8-18GM50-E2-3G-3D-5M	Flush	8	3-wire	PNP	Normally-open (NO)	500	10	30		Fixed cable	50	18						
NBB8-18GM50-E2-V1-3G-3D	Flush	8	3-wire	PNP	Normally-open (NO)	500	10	30		M12 connector plug	50	18						
NBB8-18GM60-A2-V1-3G-3D	Flush	8	4-wire	PNP	Complementary	500	10	30		M12 connector plug	60	18						
NCB10-30GK40-N0	Flush	10	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	40	30						
NCB10-30GM40-N0	Flush	10	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	40	30						
NCB10-30GM40-N0-5M	Flush	10	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	40	30						
NCB10-30GM40-N0-10M	Flush	10	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	40	30						
NCB10-30GM40-N0-V1	Flush	10	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		M12 connector plug	55	30						
NCB10-30GM40-Z0-3G-3D	Flush	10	2-wire	2-wire	Normally-open (NO)	150	5	60		Fixed cable	40	30						
NCB10-30GM40-Z0-3G-3D	Flush	10	2-wire	2-wire	Normally-open (NO)	150	5	60		M12 connector plug	40	30						
NCB10-30GM40-Z1-3G-3D	Flush	10	2-wire	2-wire	Normally-closed (NC)	150	5	60		Fixed cable	40	30						
NCB15-30GM40-N0	Semi-flush	15	2-wire	NAMUR	Normally-closed (NC)	450	8.2	8.2		Fixed cable	40	30						
NCB15-30GM40-N0-5M	Semi-flush	15	2-wire	NAMUR	Normally-closed (NC)	450	8.2	8.2		Fixed cable	40	30						
NCB15-30GM40-N0-10M	Semi-flush	15	2-wire	NAMUR	Normally-closed (NC)	450	8.2	8.2		Fixed cable	40	30						
NCB15-30GM40-N0-V1	Semi-flush	15	2-wire	NAMUR	Normally-closed (NC)	450	8.2	8.2		M12 connector plug	40	30						
NBB15-30GM50-E2-3G-3D	Flush	15	3-wire	PNP	Normally-open (NO)	200	10	30		Fixed cable	50	30						
NBB15-30GM50-E2-V1-3G-3D	Flush	15	3-wire	PNP	Normally-open (NO)	200	10	30		M12 connector plug	50	30						
NBB15-30GM50-E3-V1-3G-3D	Flush	15	3-wire	PNP	Normally-closed (NC)	200	10	30		M12 connector plug	50	30						
NCN4-12GK35-N0	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	800	8.2	8.2		Fixed cable	35	12						
NCN4-12GM35-N0	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	800	8.2	8.2	2	Fixed cable	35	12						
NCN4-12GM35-N0-5M	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	800	8.2	8.2		Fixed cable	35	12						
NCN4-12GM35-N0-10M	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	800	8.2	8.2		Fixed cable	35	12						
NCN4-12GM35-N0-V1	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	800	8.2	8.2	2	M12 connector plug	40	12						
NCN4-12GM40-E2-3G-3D	Non-flush	4	3-wire	PNP	Normally-open (NO)	2200	10	30		Fixed cable	40	12						
NCN4-12GM40-E2-V1-3G-3D	Non-flush	4	3-wire	PNP	Normally-open (NO)	2200	10	30		M12 connector plug	52	12						
NCN4-12GM40-Z0-3G-3D	Non-flush	4	2-wire	2-wire	Normally-open (NO)	800	5	60		Fixed cable	40	12						
NBN5-11K8-N-V8	Non-flush	5	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Other	6.5	10						
NCN8-18GK40-N0	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Fixed cable	40	18						
NCN8-18GM40-N0	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Fixed cable	40	18						
NCN8-18GM40-N0-5M	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Fixed cable	40	18						
NCN8-18GM40-N0-10M	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Fixed cable	40	18						
NCN8-18GM40-N0-V1	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		M12 connector plug	40	18						
NCN8-18GM40-Z0-3G-3D	Non-flush	8	2-wire	2-wire	Normally-open (NO)	300	5	60		Fixed cable	40	18						
NCN8-18GM50-E2-3G-3D	Non-flush	8	3-wire	PNP	Normally-open (NO)	400	10	60		Fixed cable	50	18						
NCN8-18GM50-E2-3G-3D-5M	Non-flush	8	3-wire	PNP	Normally-open (NO)	400	10	60		Fixed cable	50	18						
NCN15-30GK40-N0	Non-flush	15	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		Fixed cable	40	30						
NCN15-30GM40-N0	Non-flush	15	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		Fixed cable	40	30						
NCN15-30GM40-N0-10M	Non-flush	15	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		Fixed cable	40	30						
NCN15-30GM40-N0-V1	Non-flush	15	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		M12 connector plug	55	30						
NCN15-30GM40-Z0-3G-3D	Non-flush	15	2-wire	2-wire	Normally-open (NO)	100	5	60		Fixed cable	40	30						
NJ0,2-10GM-N	Flush	0.2	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		Fixed cable	27	10						
NJ0,8-4,5-N	Flush	0.8	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Fixed cable	20	4.5						
NJ0,8-5GM-N	Flush	0.8	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Fixed cable	20	5						
NJ0,8-5GM-N-5M	Flush	0.8	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Fixed cable	20	5						
NJ0,8-5GM-N-10M	Flush	0.8	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Fixed cable	20	5						
NJ1,5-6,5-N	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Fixed cable	22	6.5						
NJ1,5-6,5-N-5M	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Fixed cable	22	6.5						
NJ1,5-8GM-N	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2	2	Fixed cable	22	8						
NJ1,5-8GM-N-10M	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Fixed cable	22	8						
NJ1,5-8GM-N-5M	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Fixed cable	22	8						
NJ1,5-8GM-N-V1	Flush	1.5	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		M12 connector plug	20	8						
NJ2-11-N	Flush	2	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	Fixed cable	31	11						
NJ2-11-N-G	Flush	2	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	Fixed cable	30	14						
NJ2-11-N-G-5M	Flush	2	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	Fixed cable	30	14						
NJ2-11-N-G-10M	Flush	2	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2		Fixed cable	30	14						
NJ2-12GK-N	Flush	2	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	34	12						
NJ2-12GK-N-5M	Flush	2	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	34	12						
NJ2-12GM-N	Flush	2	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	2	Fixed cable	35	12						
NJ2-12GM-N-5M	Flush	2	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	2	Fixed cable	35	12						
NJ2-12GM-N-10M	Flush	2	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	2	Fixed cable	35	12						
NJ2-12GM-N-V1	Flush	2	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	2	M12 connector plug	50	12						
NJ4-12GK-N	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2	2	Fixed cable	34	12						
NJ4-12GK-N-5M	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		Fixed cable	34	12						
NJ4-12GK-N-10M	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		Fixed cable	34	12						
NJ4-12GM-N	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		Fixed cable	33	12						

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	SIL	Connection type	Length L	Diameter D	CCC	ATEX	CSA	EAC	FM	UL
NJ4-12GM-N-5M	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		Fixed cable	33	12		■	■	■	■	■
NJ4-12GM-N-10M	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		Fixed cable	33	12		■	■	■	■	■
NJ4-12GM-N-V1	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	1500	8.2	8.2		M12 connector plug	50	12		■	■	■	■	■
NJ4-30GM-N-200	Flush	4	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2		Fixed cable	75	30		■				■
NJ4-30GM-N-200-10M	Flush	4	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2		Fixed cable	75	30		■				■
NJ5-11-N	Non-flush	5	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2		Fixed cable	31	11		■			■	■
NJ5-11-N-5M	Non-flush	5	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2		Fixed cable	31	11		■				■
NJ5-11-N-G	Non-flush	5	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	Fixed cable	31	14		■		■		■
NJ5-11-N-G-5M	Non-flush	5	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	Fixed cable	31	14		■		■		■
NJ5-11-N-G-10M	Non-flush	5	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	Fixed cable	31	14		■		■		■
NJ5-18GK-N	Flush	5	2-wire	NAMUR	Normally-closed (NC)	500	8.2	8.2		Fixed cable	39	18		■	■	■	■	■
NJ5-18GK-N-5M	Flush	5	2-wire	NAMUR	Normally-closed (NC)	500	8.2	8.2		Fixed cable	39	18		■	■	■	■	■
NJ5-18GK-N-10M	Flush	5	2-wire	NAMUR	Normally-closed (NC)	500	8.2	8.2		Fixed cable	39	18		■	■	■		■
NJ5-18GK-N-150	Flush	5	2-wire	NAMUR	Normally-closed (NC)	500	8.2	8.2		Fixed cable	47	18		■	■	■		■
NJ5-18GM-N	Flush	5	2-wire	NAMUR	Normally-closed (NC)	500	8.2	8.2		Fixed cable	40	18		■	■	■	■	■
NJ5-18GM-N-5M	Flush	5	2-wire	NAMUR	Normally-closed (NC)	500	8.2	8.2		Fixed cable	40	18		■	■	■	■	■
NJ5-18GM-N-10M	Flush	5	2-wire	NAMUR	Normally-closed (NC)	500	8.2	8.2		Fixed cable	40	18		■	■	■		■
NJ5-18GM-N-V1	Flush	5	2-wire	NAMUR	Normally-closed (NC)	500	8.2	8.2		M12 connector plug	50	18		■	■	■	■	■
NJ5-18GM50-E2-3G-3D	Flush	5	3-wire	PNP	Normally-open (NO)	2000	10	30		Fixed cable	50	18						■
NJ5-18GM50-E2-5M-3G-3D	Flush	5	3-wire	PNP	Normally-open (NO)	2000	10	30		Fixed cable	50	18						■
NJ5-18GM50-E2-V1-3G-3D	Flush	5	3-wire	PNP	Normally-open (NO)	2000	10	30		M12 connector plug	50	18						■
NJ6-22-N	Flush	6	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	35	22		■	■		■	■
NJ6-22-N-5M	Flush	6	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	35	22		■	■		■	■
NJ6-22-N-10M	Flush	6	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	35	22		■	■			■
NJ6-22-N-G	Flush	6	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	35	21		■	■			■
NJ6-22-N-G-5M	Flush	6	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	35	21		■	■			■
NJ8-18GK-N	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	39	18		■	■	■	■	■
NJ8-18GK-N-5M	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	39	18		■	■	■	■	■
NJ8-18GK-N-10M	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	39	18		■	■	■	■	■
NJ8-18GK-N-150	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	47	18		■	■	■		■
NJ8-18GK-N-150-10M	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	47	18		■	■	■		■
NJ8-18GM-N	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	40	18		■	■	■	■	■
NJ8-18GM-N-5M	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	40	18		■	■	■	■	■
NJ8-18GM-N-10M	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	40	18		■	■	■	■	■
NJ8-18GM-N-V1	Non-flush	8	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		M12 connector plug	50	18		■	■	■	■	■
NJ10-22-N	Non-flush	10	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	35	22		■	■		■	■
NJ10-22-N-G	Non-flush	10	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	35	21		■	■			■
NJ10-22-N-G-5M	Non-flush	10	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	35	21		■	■			■
NJ10-30GK-N	Flush	10	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Fixed cable	40	30		■	■	■	■	■
NJ10-30GK-N-5M	Flush	10	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Fixed cable	40	30		■	■	■	■	■
NJ10-30GK-N	Flush	10	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Terminal compartment	115	30		■	■		■	■
NJ10-30GM-N	Flush	10	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Fixed cable	40	30		■	■	■	■	■
NJ10-30GM-N-5M	Flush	10	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Fixed cable	40	30		■	■	■	■	■
NJ10-30GM-N-10M	Flush	10	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Fixed cable	40	30		■	■	■		■

## Highlights

- Cylindrical sensors with diameters between 4.5 mm and 30 mm

## Brief Description

As a leader in explosion protection technology, Pepperl+Fuchs is known for its extensive experience and in-depth application expertise in this field. Our comprehensive portfolio of ideal components is a testament to this. In addition to our intrinsically safe NAMUR sensors and interface modules, we also offer numerous proximity sensors with the appropriate certification.





# Sensors for Hazardous Areas - Cube-Style Sensors



### Standard Technical Data

Voltage type	DC
--------------	----

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	SIL	Connection type	Length L	Width W	Height H	CCC	ATEX	CSA	EAC	FM	UL
NCB2-V3-N0	Flush	2	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2	2	Fixed cable	16	27.8	10.2	■	■	■	■	■	■
NCB2-V3-N0-2M	Flush	2	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	16	27.8	10.2		■	■	■	■	■
NBB2-V3-E2-3G-3D	Flush	2	3-wire	PNP	Normally-open (NO)	1000	10	30		Fixed cable	16	27.8	10.2			■			■
NBB2-V3-Z4L-3G-3D	Flush	2	2-wire	2-wire	Normally-open (NO)	700	3.7	30		Fixed cable	16	27.8	10.2						■
NBB3-V3-Z4-3G-3D	Flush	3	2-wire	2-wire	Normally-open (NO)	2000	5	60		Fixed cable	16	27.8	10.2			■			■
NBB20-L2-A2-V1-3G-3D	Flush	20	4-wire	PNP	Complementary	440	10	30		M12 connector plug	67	40	40						■
NBB20-L2-E2-V1-3G-3D	Flush	20	3-wire	PNP	Normally-open (NO)	440	10	30		M12 connector plug	67	40	40						■
NBB20-U1K-E2-3G-3D	Flush	20	3-wire	PNP	Normally-open (NO)	150	10	30		Terminal compartment	118	40	40					■	■
NBB20-U4K-N0-V1	Flush	20	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		M12 connector plug	118	40	40						
NCB20-L2-N0-V1	Flush	20		NAMUR	Normally-closed (NC)	300	8.2	8.2		M12 connector plug	67	40	40		■		■		■
NBB20-U1K-N0	Flush	20	2-wire	NAMUR	Normally-closed (NC)	250	8.2	8.2		Terminal compartment	118	40	40		■		■		■
NBB20-U4K-N0	Flush	20	2-wire	NAMUR	Normally-closed (NC)	300	8.2	8.2		Terminal compartment	118	40	40			■			■
NCB40-FP-A2-P1-3G-3D	Flush	40	4-wire	PNP	Complementary	80	10	60		Terminal compartment	80	80	40	■		■			■
NCB40-FP-N0-P4	Flush	40	2-wire	NAMUR	Normally-closed (NC)	80	8.2	8.2		Terminal compartment	83	83	40		■	■	■	■	■
NCB40-FP-N0-P1-V1	Flush	40	2-wire	NAMUR	Normally-closed (NC)	80	8.2	8.2		M12 connector plug	83	83	40		■	■	■	■	■
NCB50-FP-A2-P1-3G-3D	Flush	50	4-wire	PNP	Complementary	80	10	60		Terminal compartment	84	84	40	■		■			■
FJ7-N	Flush	7	2-wire	NAMUR	Normally-closed (NC)	200	8.2	8.2		Fixed cable	25	50	24		■			■	
NBN4-V3-E2-3G-3D	Non-flush	4	3-wire	PNP	Normally-open (NO)	500	10	30		Fixed cable	16	27.8	10.2			■			■
NCN4-V3-N0	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable	16	27.8	10.2		■	■		■	■
NCN4-V3-N0-V5	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Faston connector plug	16	27.8	10.2		■	■			■
NCN20+U4+N0	Non-flush	20	2-wire	NAMUR	Normally-closed (NC)	250	8.2	8.2		Terminal compartment	118	40	40		■	■			■
NBN40-L2-A2-V1-3G-3D	Non-flush	40	4-wire	PNP	Complementary	180	10	30		M12 connector plug	67	40	40						■
NBN40-L2-E2-V1-3G-3D	Non-flush	40	3-wire	PNP	Normally-open (NO)	180	10	30		M12 connector plug	67	40	40						■
NBN40-U1K-E2-3G-3D	Non-flush	40	3-wire	PNP	Normally-open (NO)	150	10	30		Terminal compartment	118	40	40					■	■
NCB40-FP-N0-P1	Flush	40	2-wire	NAMUR	Normally-closed (NC)	80	8.2	8.2		Terminal compartment	83	83	40		■	■	■	■	■
NCN40-L2-N0-V1	Non-flush	40		NAMUR	Normally-closed (NC)	150	8.2	8.2		M12 connector plug	67	40	40		■		■		■
NBN40-U1K-N0	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		Terminal compartment	118	40	40		■		■		■
NBN40-U1K-N0-V1	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		M12 connector plug	118	40	40		■		■		■
NBN40-U1LK-N0	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		Terminal compartment	128	55	55		■				■
NBN40-U1LK-N0-V1	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		M12 connector plug	128	55	55		■				■
NBN40-U2K-N0	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		Terminal compartment	118	40	40		■				■
NBN40-U4K-N0	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		Terminal compartment	118	40	40		■				■
NBN40-U4K-N0-V1	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		M12 connector plug	118	40	40		■				■
NBN40-U4LK-N0	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		Terminal compartment	128	55	55		■				■
NBN40-U4LK-N0-V1	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		M12 connector plug	128	55	55		■				■
NCN50-FP-A2-P1-3G-3D	Non-flush	50	4-wire	PNP	Complementary	80	10	60		Terminal compartment	80	80	40	■		■			■
NCN50-FP-N0-P4-V1	Non-flush	50	2-wire	NAMUR	Normally-closed (NC)	80	8.2	8.2		M12 connector plug	80	80	40		■	■		■	■
NJ1,5-F-N	Non-flush	1.5	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Stranded cable	8	8	10		■	■		■	■

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	SIL	Connection type	Length L	Width W	Height H	CCC	ATEX	CSA	EAC	FM	UL
NJ2-V3-N	Flush	2	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2	2	Fixed cable	16	27.8	10.2	■	■	■	■	■	■
NJ2-V3-N-V5	Flush	2	2-wire	NAMUR	Normally-closed (NC)	1000	8.2	8.2		Faston connector plug	16	27.8	10.2		■	■	■		■
NJ4-F-N	Non-flush	4	2-wire	NAMUR	Normally-closed (NC)	2000	8.2	8.2		Fixed cable					■	■		■	■
NJ6-F-N	Flush	6	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Fixed cable	20	45	30		■	■		■	■
NJ6-F-N-10M	Flush	6	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Fixed cable	20	45	30		■				
NJ6-F-N-5M	Flush	6	2-wire	NAMUR	Normally-closed (NC)	5000	8.2	8.2		Fixed cable	20	45	30		■	■			■
NJ10-F-N	Non-flush	10	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2		Fixed cable	20	45	30		■	■		■	■
NJ15-M1K-N	Non-flush	15	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		Terminal compartment	91	30	30		■				■
NJ15-M1K-N-V1	Non-flush	15	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		M12 connector plug	91	30	30		■				■
NJ20+U1+N	Non-flush	20	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		Terminal compartment	118	40	40		■	■	■	■	■
NJ20+U4+N	Non-flush	20	2-wire	NAMUR	Normally-closed (NC)	150	8.2	8.2		Terminal compartment	118	40	40		■	■		■	■
NJ30P+U1+1N	Non-flush	30	2-wire	NAMUR	Normally-open (NO)	150	8.2	8.2		Terminal compartment	128	55	55		■	■			■
NJ40+U1+N	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	80	8.2	8.2		Terminal compartment	128	55	55		■	■	■	■	■
NJ40+U2+N	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	80	8.2	8.2		Terminal compartment	128	55	55		■	■		■	■
NJ40+U4+N	Non-flush	40	2-wire	NAMUR	Normally-closed (NC)	80	8.2	8.2		Terminal compartment	128	55	55		■	■		■	■
NJ50-FP-N-P1	Non-flush	50	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		Terminal compartment	80	80	40		■	■			■
NJ50-FP-N-P4	Non-flush	50	2-wire	NAMUR	Normally-closed (NC)	100	8.2	8.2		Terminal compartment	80	80	40		■	■		■	■

## Highlights

- Rectangular sensors with operating distances from 1.5 mm to 50 mm

## Brief Description

As a technology leader in explosion protection, Pepperl+Fuchs is known for its extensive experience and in-depth application expertise in this area. Our comprehensive portfolio of ideal components is a testament to this. In addition to our intrinsically safe NAMUR sensors and interface modules, we have numerous proximity sensors with the appropriate certification.

Accessories	
KCD2-E2L	Sensor output interface terminal with lead breakage detection
KCD2-SR-EX1.LB	24 V DC
MH 02-L	Mounting aid
MH 04-2057B	Mounting aid for VariKont and +U1+ sensors
MH 04-2681F	Mounting aid for VariKont, +U1+, and +U9* sensors
MHW 01	Modular mounting bracket
V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-G-N-2M-PUR	Single-ended female cordset, M12, 2-pin, NAMUR, PUR cable



# Sensors for Mobile Equipment - Cylindrical Sensors



Standard Technical Data	
Special features	Extended temperature range, mobile equipment
Voltage type	DC
E1 type approval	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Diameter D	CCC	CSA	EAC	UL
NBB4-12GM35-A0-M1	Flush	4	4-wire	NPN	Complementary	2200	7	30	Fixed cable	35	12				■
NBB4-12GM35-A2-V1-M1	Flush	4	4-wire	PNP	Complementary	2200	7	30	M12 connector plug	51	12				■
NBB4-12GK50-E0-M	Flush	4	3-wire	NPN	Normally-open (NO)	2500	5	60	Fixed cable	50	12	■	■		■
NBB4-12GK50-E1-M	Flush	4	3-wire	NPN	Normally-closed (NC)	2500	5	60	Fixed cable	50	12	■	■		■
NBB4-12GK50-E2-M	Flush	4	3-wire	PNP	Normally-open (NO)	2500	5	60	Fixed cable	50	12	■	■		■
NBB4-12GK50-E3-M	Flush	4	3-wire	PNP	Normally-closed (NC)	2500	5	60	Fixed cable	50	12	■	■		■
NBB4-12GM50-A0-M1	Flush	4	4-wire	NPN	Complementary	2200	7	30	Fixed cable	50	12				■
NBB4-12GM50-A0-V1-M1	Flush	4	4-wire	NPN	Complementary	2200	7	30	M12 connector plug	66	12				■
NBB4-12GM50-A2-M1	Flush	4	4-wire	PNP	Complementary	2200	7	30	Fixed cable	50	12				■
NBB4-12GM50-A2-V1-M1	Flush	4	4-wire	PNP	Complementary	2200	7	30	M12 connector plug	66	12				■
NBB4-12GM50-E0-M	Flush	4	3-wire	NPN	Normally-open (NO)	2500	5	60	Fixed cable	50	12	■	■		■
NBB4-12GM50-E0-M1	Flush	4	3-wire	NPN	Normally-open (NO)	2200	7	30	Fixed cable	50	12				■
NBB4-12GM50-E0-V1-M	Flush	4	3-wire	NPN	Normally-open (NO)	2500	5	60	M12 connector plug	66	12	■	■		■
NBB4-12GM50-E0-V1-M1	Flush	4	3-wire	NPN	Normally-open (NO)	2200	7	30	M12 connector plug	66	12				■
NBB4-12GM50-E1-M	Flush	4	3-wire	NPN	Normally-closed (NC)	2500	5	60	Fixed cable	50	12	■	■		■
NBB4-12GM50-E1-M1	Flush	4	3-wire	NPN	Normally-closed (NC)	2200	7	30	Fixed cable	50	12				■
NBB4-12GM50-E1-V1-M	Flush	4	3-wire	NPN	Normally-closed (NC)	2500	5	60	M12 connector plug	66	12	■	■		■
NBB4-12GM50-E1-V1-M1	Flush	4	3-wire	NPN	Normally-closed (NC)	2200	7	30	M12 connector plug	66	12				■
NBB4-12GM50-E2-M	Flush	4	3-wire	PNP	Normally-open (NO)	2500	5	60	Fixed cable	50	12	■			■
NBB4-12GM50-E2-M1	Flush	4	3-wire	PNP	Normally-open (NO)	2200	7	30	Fixed cable	50	12				■
NBB4-12GM50-E2-V1-M	Flush	4	3-wire	PNP	Normally-open (NO)	2500	5	60	M12 connector plug	66	12	■	■		■
NBB4-12GM50-E2-V1-M1	Flush	4	3-wire	PNP	Normally-open (NO)	2200	7	30	M12 connector plug	66	12				■
NBB4-12GM50-E3-M	Flush	4	3-wire	PNP	Normally-closed (NC)	2500	5	60	Fixed cable	50	12	■			■
NBB4-12GM50-E3-M1	Flush	4	3-wire	PNP	Normally-closed (NC)	2200	7	30	Fixed cable	50	12				■
NBB4-12GM50-E3-V1-M	Flush	4	3-wire	PNP	Normally-closed (NC)	2500	5	60	M12 connector plug	66	12	■	■		■
NBB4-12GM50-E3-V1-M1	Flush	4	3-wire	PNP	Normally-closed (NC)	2200	7	30	M12 connector plug	66	12				■
NBB4-12GM50-EI-M1	Flush	4	3-wire	Digital current output		1800	9	30	Fixed cable	50	12				■
NBB4-12GM50-EI-V1-M1	Flush	4	3-wire	Digital current output		1800	9	30	M12 connector plug	65	12				■
NCB4-12GM70-E0-M	Flush	4	3-wire	NPN	Normally-open (NO)	1000	10	60	Fixed cable	70	12		■		■
NCB4-12GM70-E1-M	Flush	4	3-wire	NPN	Normally-closed (NC)	1000	10	60	Fixed cable	70	12		■		■
NCB4-12GM70-E2-M	Flush	4	3-wire	PNP	Normally-open (NO)	1000	10	60	Fixed cable	70	12		■		■
NCB4-12GM70-E3-M	Flush	4	3-wire	PNP	Normally-closed (NC)	1000	10	60	Fixed cable	70	12		■		■
NBB5-18GK50-E0-M	Flush	5	3-wire	NPN	Normally-open (NO)	1500	5	60	Fixed cable	58	18	■	■		■
NBB5-18GK50-E1-M	Flush	5	3-wire	NPN	Normally-closed (NC)	1500	5	60	Fixed cable	58	18	■	■		■
NBB5-18GK50-E2-M	Flush	5	3-wire	PNP	Normally-open (NO)	1500	5	60	Fixed cable	58	18	■	■		■
NBB5-18GK50-E3-M	Flush	5	3-wire	PNP	Normally-closed (NC)	1500	5	60	Fixed cable	58	18	■	■		■
NBB8-18GM35-A0-M1	Flush	8	4-wire	NPN	Complementary	1600	7	30	Fixed cable	35	18				■
NBB8-18GM50-A0-M1	Flush	8	4-wire	NPN	Complementary	1600	7	30	Fixed cable	50	18				■
NBB8-18GM50-A0-V1-M1	Flush	8	4-wire	NPN	Complementary	1600	7	30	M12 connector plug	65	18				■
NBB8-18GM50-A2-M1	Flush	8	4-wire	PNP	Complementary	1600	7	30	Fixed cable	50	18				■

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Diameter D	CCC	CSA	EAC	UL
NBB8-18GM50-A2-V1-M1	Flush	8	4-wire	PNP	Complementary	1600	7	30	M12 connector plug	65	18				
NBB8-18GM50-E0-M	Flush	8	3-wire	NPN	Normally-open (NO)	1500	5	60	Fixed cable	55	18	■	■	■	■
NBB8-18GM50-E0-M1	Flush	8	3-wire	NPN	Normally-open (NO)	1600	7	30	Fixed cable	50	18				■
NBB8-18GM50-E0-V1-M	Flush	8	3-wire	NPN	Normally-open (NO)	1500	5	60	M12 connector plug	65	18	■	■	■	■
NBB8-18GM50-E0-V1-M1	Flush	8	3-wire	NPN	Normally-open (NO)	1600	7	30	M12 connector plug	65	18				■
NBB8-18GM50-E1-M	Flush	8	3-wire	NPN	Normally-closed (NC)	1500	5	60	Fixed cable	55	18	■	■	■	■
NBB8-18GM50-E1-M1	Flush	8	3-wire	NPN	Normally-closed (NC)	1600	7	30	Fixed cable	50	18				■
NBB8-18GM50-E1-V1-M	Flush	8	3-wire	NPN	Normally-closed (NC)	1500	5	60	M12 connector plug	65	18	■	■	■	■
NBB8-18GM50-E1-V1-M1	Flush	8	3-wire	NPN	Normally-closed (NC)	1600	7	30	M12 connector plug	65	18				■
NBB8-18GM50-E2-M	Flush	8	3-wire	PNP	Normally-open (NO)	1500	5	60	Fixed cable	55	18	■	■	■	■
NBB8-18GM50-E2-M1	Flush	8	3-wire	PNP	Normally-open (NO)	1600	7	30	Fixed cable	50	18				■
NBB8-18GM50-E2-V1-M	Flush	8	3-wire	PNP	Normally-open (NO)	1500	5	60	M12 connector plug	65	18	■	■	■	■
NBB8-18GM50-E2-V1-M1	Flush	8	3-wire	PNP	Normally-open (NO)	1600	7	30	M12 connector plug	65	18				■
NBB8-18GM50-E3-M	Flush	8	3-wire	PNP	Normally-closed (NC)	1500	5	60	Fixed cable	55	18	■	■	■	■
NBB8-18GM50-E3-M1	Flush	8	3-wire	PNP	Normally-closed (NC)	1600	7	30	Fixed cable	50	18				■
NBB8-18GM50-E3-V1-M	Flush	8	3-wire	PNP	Normally-closed (NC)	1500	5	60	M12 connector plug	65	18	■	■	■	■
NBB8-18GM50-E3-V1-M1	Flush	8	3-wire	PNP	Normally-closed (NC)	1600	7	30	M12 connector plug	65	18				■
NBB8-18GM50-EI-M1	Flush	8	3-wire	Digital current output		1300	9	30	Fixed cable	50	18				■
NBB8-18GM50-EI-V1-M1	Flush	8	3-wire	Digital current output		1300	9	30	M12 connector plug	65	18				■
NBB10-30GK50-E0-M	Flush	10	3-wire	NPN	Normally-open (NO)	800	5	60	Fixed cable	63	30	■	■		■
NBB10-30GK50-E1-M	Flush	10	3-wire	NPN	Normally-closed (NC)	800	5	60	Fixed cable	63	30	■	■		■
NBB10-30GK50-E2-M	Flush	10	3-wire	PNP	Normally-open (NO)	800	5	60	Fixed cable	63	30	■	■		■
NBB10-30GK50-E3-M	Flush	10	3-wire	PNP	Normally-closed (NC)	800	5	60	Fixed cable	63	30	■	■		■
NBB15-30GM35-A0-M1	Flush	15	4-wire	NPN	Complementary	500	7	30	Fixed cable	35	30				■
NBB15-30GM50-A0-M1	Flush	15	4-wire	NPN	Complementary	500	7	30	Fixed cable	50	30				■
NBB15-30GM50-A0-V1-M1	Flush	15	4-wire	NPN	Complementary	500	7	30	M12 connector plug	66	30				■
NBB15-30GM50-A2-M1	Flush	15	4-wire	PNP	Complementary	500	7	30	Fixed cable	50	30				■
NBB15-30GM50-A2-V1-M1	Flush	15	4-wire	PNP	Complementary	500	7	30	M12 connector plug	66	30				■
NBB15-30GM50-E0-M	Flush	15	3-wire	NPN	Normally-open (NO)	600	5	60	Fixed cable	61	30	■	■	■	■
NBB15-30GM50-E0-M1	Flush	15	3-wire	NPN	Normally-open (NO)	500	7	30	Fixed cable	50	30				■
NBB15-30GM50-E0-V1-M	Flush	15	3-wire	NPN	Normally-open (NO)	600	5	60	M12 connector plug	66	30	■	■	■	■
NBB15-30GM50-E0-V1-M1	Flush	15	3-wire	NPN	Normally-open (NO)	500	7	30	M12 connector plug	66	30				■
NBB15-30GM50-E1-M	Flush	15	3-wire	NPN	Normally-closed (NC)	600	5	60	Fixed cable	61	30	■	■	■	■
NBB15-30GM50-E1-M1	Flush	15	3-wire	NPN	Normally-closed (NC)	500	7	30	Fixed cable	50	30				■
NBB15-30GM50-E1-V1-M	Flush	15	3-wire	NPN	Normally-closed (NC)	600	5	60	M12 connector plug	66	30	■	■	■	■
NBB15-30GM50-E1-V1-M1	Flush	15	3-wire	NPN	Normally-closed (NC)	500	7	30	M12 connector plug	66	30				■
NBB15-30GM50-E2-M	Flush	15	3-wire	PNP	Normally-open (NO)	600	5	60	Fixed cable	61	30	■	■	■	■
NBB15-30GM50-E2-M1	Flush	15	3-wire	PNP	Normally-open (NO)	500	7	30	Fixed cable	50	30				■
NBB15-30GM50-E2-V1-M	Flush	15	3-wire	PNP	Normally-open (NO)	600	5	60	M12 connector plug	66	30	■	■	■	■
NBB15-30GM50-E2-V1-M1	Flush	15	3-wire	PNP	Normally-open (NO)	500	7	30	M12 connector plug	66	30				■
NBB15-30GM50-E3-M	Flush	15	3-wire	PNP	Normally-closed (NC)	600	5	60	Fixed cable	61	30	■	■	■	■
NBB15-30GM50-E3-M1	Flush	15	3-wire	PNP	Normally-closed (NC)	500	7	30	Fixed cable	50	30				■
NBB15-30GM50-E3-V1-M	Flush	15	3-wire	PNP	Normally-closed (NC)	600	5	60	M12 connector plug	66	30	■	■	■	■
NBB15-30GM50-E3-V1-M1	Flush	15	3-wire	PNP	Normally-closed (NC)	500	7	30	M12 connector plug	66	30				■
NBB15-30GM50-EI-M1	Flush	15	3-wire	Digital current output		700	9	30	Fixed cable	50	30				■
NBB15-30GM50-EI-V1-M1	Flush	15	3-wire	Digital current output		700	9	30	M12 connector plug	65	30				■
NBN4-12GM35-A2-V1-M1	Non-flush	4	4-wire	PNP	Complementary	1200	7	30	M12 connector plug	51	12				■
NBN7-12GK50-E0-M	Non-flush	7	3-wire	NPN	Normally-open (NO)	1500	5	60	Fixed cable	50	12	■	■		■
NBN7-12GK50-E1-M	Non-flush	7	3-wire	NPN	Normally-closed (NC)	1500	5	60	Fixed cable	50	12	■	■		■
NBN7-12GK50-E2-M	Non-flush	7	3-wire	PNP	Normally-open (NO)	1500	5	60	Fixed cable	50	12	■	■		■
NBN7-12GK50-E3-M	Non-flush	7	3-wire	PNP	Normally-closed (NC)	1500	5	60	Fixed cable	50	12	■	■		■
NBN7-12GM50-E0-M	Non-flush	7	3-wire	NPN	Normally-open (NO)	1500	5	60	Fixed cable	50	12	■	■		■
NBN7-12GM50-E0-V1-M	Non-flush	7	3-wire	NPN	Normally-open (NO)	1500	5	60	M12 connector plug	66	12	■	■		■
NBN7-12GM50-E1-M	Non-flush	7	3-wire	NPN	Normally-closed (NC)	1500	5	60	Fixed cable	50	12	■	■		■
NBN7-12GM50-E1-V1-M	Non-flush	7	3-wire	NPN	Normally-closed (NC)	1500	5	60	M12 connector plug	66	12	■	■		■
NBN7-12GM50-E2-M	Non-flush	7	3-wire	PNP	Normally-open (NO)	1500	5	60	Fixed cable	50	12	■	■		■
NBN7-12GM50-E2-V1-M	Non-flush	7	3-wire	PNP	Normally-open (NO)	1500	5	60	M12 connector plug	66	12	■	■		■
NBN7-12GM50-E3-M	Non-flush	7	3-wire	PNP	Normally-closed (NC)	1500	5	60	Fixed cable	50	12	■	■		■
NBN7-12GM50-E3-V1-M	Non-flush	7	3-wire	PNP	Normally-closed (NC)	1500	5	60	M12 connector plug	66	12	■	■		■
NBN8-12GM50-EI-V1-M1	Non-flush	8	3-wire	Digital current output		1500	9	30	M12 connector plug	65	12				■
NBN8-12GM50-A0-M1	Non-flush	8	4-wire	NPN	Complementary	1200	7	30	Fixed cable	50	12				■
NBN8-12GM50-A0-V1-M1	Non-flush	8	4-wire	NPN	Complementary	1200	7	30	M12 connector plug	66	12				■
NBN8-12GM50-A2-M1	Non-flush	8	4-wire	PNP	Complementary	1200	7	30	Fixed cable	50	12				■
NBN8-12GM50-A2-V1-M1	Non-flush	8	4-wire	PNP	Complementary	1200	7	30	M12 connector plug	66	12				■
NBN8-12GM50-E0-M1	Non-flush	8	3-wire	NPN	Normally-open (NO)	1200	7	30	Fixed cable	50	12				■



Model number	Type Of Installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Diameter D	CCC	CSA	EAC	UL
NBN8-12GM50-E0-V1-M1	Non-flush	8	3-wire	NPN	Normally-open (NO)	1200	7	30	M12 connector plug	66	12				■
NBN8-12GM50-E1-M1	Non-flush	8	3-wire	NPN	Normally-closed (NC)	1200	7	30	Fixed cable	50	12				■
NBN8-12GM50-E1-V1-M1	Non-flush	8	3-wire	NPN	Normally-closed (NC)	1200	7	30	M12 connector plug	66	12				■
NBN8-12GM50-E2-M1	Non-flush	8	3-wire	PNP	Normally-open (NO)	1200	7	30	Fixed cable	50	12				■
NBN8-12GM50-E2-V1-M1	Non-flush	8	3-wire	PNP	Normally-open (NO)	1200	7	30	M12 connector plug	66	12				■
NBN8-12GM50-E3-M1	Non-flush	8	3-wire	PNP	Normally-closed (NC)	1200	7	30	Fixed cable	50	12				■
NBN8-12GM50-E3-V1-M1	Non-flush	8	3-wire	PNP	Normally-closed (NC)	1200	7	30	M12 connector plug	66	12				■
NBN8-12GM50-EI-M1	Non-flush	8	3-wire	Digital current output		1500	9	30	Fixed cable	50	12				■
NBN12-18GK50-E0-M	Non-flush	12	3-wire	NPN	Normally-open (NO)	1500	5	60	Fixed cable	58	18	■	■		■
NBN12-18GK50-E1-M	Non-flush	12	3-wire	NPN	Normally-closed (NC)	1500	5	60	Fixed cable	58	18	■	■		■
NBN12-18GK50-E2-M	Non-flush	12	3-wire	PNP	Normally-open (NO)	1500	5	60	Fixed cable	58	18	■	■		■
NBN12-18GK50-E3-M	Non-flush	12	3-wire	PNP	Normally-closed (NC)	1500	5	60	Fixed cable	58	18	■	■		■
NBN12-18GM50-A0-M1	Non-flush	12	4-wire	NPN	Complementary	1200	7	30	Fixed cable	50	18				■
NBN12-18GM50-A0-V1-M1	Non-flush	12	4-wire	NPN	Complementary	1200	7	30	M12 connector plug	65	18				■
NBN12-18GM50-A2-M1	Non-flush	12	4-wire	PNP	Complementary	1200	7	30	Fixed cable	50	18				■
NBN12-18GM50-A2-V1-M1	Non-flush	12	4-wire	PNP	Complementary	1200	7	30	M12 connector plug	65	18				■
NBN12-18GM50-E0-M	Non-flush	12	3-wire	NPN	Normally-open (NO)	1500	5	60	Fixed cable	55	18	■		■	
NBN12-18GM50-E0-M1	Non-flush	12	3-wire	NPN	Normally-open (NO)	1200	7	30	Fixed cable	50	18				■
NBN12-18GM50-E0-V1-M	Non-flush	12	3-wire	NPN	Normally-open (NO)	1500	5	60	M12 connector plug	65	18	■		■	
NBN12-18GM50-E0-V1-M1	Non-flush	12	3-wire	NPN	Normally-open (NO)	1200	7	30	M12 connector plug	65	18				■
NBN12-18GM50-E1-M	Non-flush	12	3-wire	NPN	Normally-closed (NC)	1500	5	60	Fixed cable	55	18	■	■	■	■
NBN12-18GM50-E1-M1	Non-flush	12	3-wire	NPN	Normally-closed (NC)	1200	7	30	Fixed cable	50	18				■
NBN12-18GM50-E1-V1-M	Non-flush	12	3-wire	NPN	Normally-closed (NC)	1500	5	60	M12 connector plug	65	18	■		■	
NBN12-18GM50-E1-V1-M1	Non-flush	12	3-wire	NPN	Normally-closed (NC)	1200	7	30	M12 connector plug	65	18				■
NBN12-18GM50-E2-M	Non-flush	12	3-wire	PNP	Normally-open (NO)	1500	5	60	Fixed cable	55	18	■		■	
NBN12-18GM50-E2-M1	Non-flush	12	3-wire	PNP	Normally-open (NO)	1200	7	30	Fixed cable	50	18				■
NBN12-18GM50-E2-V1-M	Non-flush	12	3-wire	PNP	Normally-open (NO)	1500	5	60	M12 connector plug	65	18	■		■	
NBN12-18GM50-E2-V1-M1	Non-flush	12	3-wire	PNP	Normally-open (NO)	1200	7	30	M12 connector plug	65	18				■
NBN12-18GM50-E3-M	Non-flush	12	3-wire	PNP	Normally-closed (NC)	1500	5	60	Fixed cable	55	18	■	■	■	■
NBN12-18GM50-E3-M1	Non-flush	12	3-wire	PNP	Normally-closed (NC)	1200	7	30	Fixed cable	50	18				■
NBN12-18GM50-E3-V1-M	Non-flush	12	3-wire	PNP	Normally-closed (NC)	1500	5	60	M12 connector plug	65	18	■		■	
NBN12-18GM50-E3-V1-M1	Non-flush	12	3-wire	PNP	Normally-closed (NC)	1200	7	30	M12 connector plug	65	18				■
NBN12-18GM50-EI-M1	Non-flush	12	3-wire	Digital current output		1000	9	30	Fixed cable	50	18				■
NBN12-18GM50-EI-V1-M1	Non-flush	12	3-wire	Digital current output		1000	9	30	M12 connector plug	65	18				■
NBN15-30GM50-A2-V1-M1	Non-flush	15	4-wire	PNP	Complementary	450	7	30	M12 connector plug	66	30				■
NBN20-30GM50-EI-M1	Non-flush	20	3-wire	Digital current output		1000	9	30	Fixed cable	50	30				■
NBN20-30GM50-EI-V1-M1	Non-flush	20	3-wire	Digital current output		1000	9	30	M12 connector plug	65	30				■
NBN25-30GK50-E0-M	Non-flush	25	3-wire	NPN	Normally-open (NO)	200	5	60	Fixed cable	63	30	■	■		■
NBN25-30GK50-E1-M	Non-flush	25	3-wire	NPN	Normally-closed (NC)	200	5	60	Fixed cable	63	30	■	■		■
NBN25-30GK50-E2-M	Non-flush	25	3-wire	PNP	Normally-open (NO)	200	5	60	Fixed cable	63	30	■	■		■
NBN25-30GK50-E3-M	Non-flush	25	3-wire	PNP	Normally-closed (NC)	200	5	60	Fixed cable	63	30	■	■		■
NBN25-30GM40-E2-M1	Non-flush	25	3-wire	PNP	Normally-open (NO)	450	7	30	Fixed cable	40	30				■
NBN25-30GM50-A0-M1	Non-flush	25	4-wire	NPN	Complementary	450	7	30	Fixed cable	50	30				■
NBN25-30GM50-A0-V1-M1	Non-flush	25	4-wire	NPN	Complementary	450	7	30	M12 connector plug	66	30				■

## Highlights

- Excellent mechanical and electrical properties for reliable operation in the harshest outdoor conditions
- Optimized for mobile equipment (E1 type approval for use on public roads)
- Comprehensive portfolio and application-specific adaptations for excellent flexibility in sensor selection
- The highest quality standards (internal testing according to criteria far beyond the normative requirements)

## Brief Description

High Reliability under the Toughest Conditions  
Applications in the mobile equipment sector place highly specific demands on sensor technology. In addition to approval for road traffic (E1 type approval), proximity sensors in this area must also have EMC immunity. Other typical requirements include high impermeability, resistance to shocks, vibrations, and chemicals, and an extended temperature range of -40 °C to +85 °C. With this in mind, Pepperl+Fuchs offers an extremely broad portfolio that guarantees maximum flexibility. The selection includes exceptionally rugged devices, which, thanks to a special internal test procedure, ensure a level of impermeability beyond the IP68 standard—a new benchmark in quality.



# Sensors for Mobile Equipment - Cube-Style Sensors



Standard Technical Data	
Voltage type	DC
E1 type approval	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	Connection type	Length L	Width W	Height H	CCC	CSA	UL
NBB8-F148P10-E0-M	Flush	8	3-wire	NPN	Normally-open (NO)	600	10	60	Fixed cable	50	35	20			
NBB8-F148P10-E2-M	Flush	8	3-wire	PNP	Normally-open (NO)	600	10	60	Fixed cable	50	35	20			
NBB8-F148P10-E2-M-0,15M-3DT04	Flush	8	3-wire	PNP	Normally-open (NO)	600	10	60	Fixed cable with Deutsch plug	50	35	20			
NBB8-F33-A2-M1	Flush	8	3-wire	PNP	Complementary	350	10	30	Fixed cable	10	50	25			■
NBB8-F33-E0-M	Flush	8	3-wire	NPN	Normally-open (NO)	350	5	60	Fixed cable	10	50	25	■		
NBB8-F33-E1-M	Flush	8	3-wire	NPN	Normally-closed (NC)	350	5	60	Fixed cable	10	50	25	■		
NBB8-F33-E2-M	Flush	8	3-wire	PNP	Normally-open (NO)	350	5	60	Fixed cable	10	50	25	■		
NBB8-F33-E2-M-150MM-3DT04	Flush	8	3-wire	PNP	Normally-open (NO)	350	5	60	Fixed cable	10	50	25			■
NBB8-F33-E3-M	Flush	8	3-wire	PNP	Normally-closed (NC)	350	5	60	Fixed cable	10	50	25	■		
NBB15-U1-A2-M	Flush	15	4-wire	PNP	Complementary	200	10	60	Terminal compartment	118	40	40	■	■	■
NBB15-F148P10-E0-M	Flush	15	3-wire	NPN	Normally-open (NO)	600	10	60	Fixed cable	50	35	20			
NBB15-F148P10-E2-M	Flush	15	3-wire	PNP	Normally-open (NO)	600	10	60	Fixed cable	50	35	20			
NBB15-F148P10-E2-M-0,15M-3DT04	Flush	15	3-wire	PNP	Normally-open (NO)	600	10	60	Fixed cable with Deutsch plug	50	35	20			
NBB20-U1-A0-M	Flush	20	4-wire	NPN	Complementary	200	10	60	Terminal compartment	118	40	40	■		■
NBB20-U1-A2-M	Flush	20	4-wire	PNP	Complementary	200	10	60	Terminal compartment	118	40	40	■		■
NBB20-L2-A2-V1-M	Flush	20	4-wire	PNP	Complementary	200	10	60	M12 connector plug	67	40	40	■	■	■
NBB20-L2M-A2-V1-M	Flush	20	4-wire	PNP	Complementary	200	10	60	M12 connector plug	67	40	40	■		■
NBB20-U4-A0-M	Flush	20	4-wire	NPN	Complementary	200	10	60	Terminal compartment	118	40	40	■	■	■
NBN10-F33-E0-M	Non-flush	10	3-wire	NPN	Normally-open (NO)	200	5	60	Fixed cable	10	50	25	■		
NBN10-F33-E2-M	Non-flush	10	3-wire	PNP	Normally-open (NO)	200	5	60	Fixed cable	10	50	25	■		
NBN10-F33-E1-M	Non-flush	10	3-wire	NPN	Normally-closed (NC)	200	5	60	Fixed cable	10	50	25	■		
NBN10-F33-E3-M	Non-flush	10	3-wire	PNP	Normally-closed (NC)	200	5	60	Fixed cable	10	50	25	■		
NBN40-U1-A0-M	Non-flush	40	4-wire	NPN	Complementary	150	10	60	Terminal compartment	118	40	40	■		■
NBN40-U1-A2-M	Non-flush	40	4-wire	PNP	Complementary	150	10	60	Terminal compartment	118	40	40	■		■
NBN40-U1-E2-M	Non-flush	40	3-wire	PNP	Normally-open (NO)	150	10	60	Terminal compartment	118	40	40	■	■	■
NBN40-U1L-A0-M	Non-flush	40	4-wire	NPN	Complementary	100	10	60	Terminal compartment	128	55	55			■
NBN40-U1L-A2-M	Non-flush	40	4-wire	PNP	Complementary	100	10	60	Terminal compartment	128	55	55			■
NBN40-L2-A0-V1-M	Non-flush	40	4-wire	NPN	Complementary	150	10	60	M12 connector plug	67	40	40	■	■	■
NBN40-L2-A2-V1-M	Non-flush	40	4-wire	PNP	Complementary	150	10	60	M12 connector plug	67	40	40	■	■	■
NBN40-L2M-A0-V1-M	Non-flush	40	4-wire	NPN	Complementary	150	10	60	M12 connector plug	67	40	40	■	■	■

## Highlights

- Excellent mechanical and electrical properties for reliable operation in the harshest outdoor conditions
- Optimized for mobile equipment (E1 type approval for use on public roads)
- Comprehensive portfolio and application-specific adaptations for excellent flexibility in sensor selection

## Brief Description

High Reliability under the Toughest Conditions  
 Applications in the mobile equipment sector place highly specific demands on sensor technology. In addition to approval for road traffic (E1 type approval), these proximity sensors must also have EMC immunity.

# Sensors for Valve Position Detection - F25 Series



Standard Technical Data	
Special features	Double sensor
Type of installation	Flush mountable
Voltage type	DC
Operating voltage (max)	30 V
Housing width W	52 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

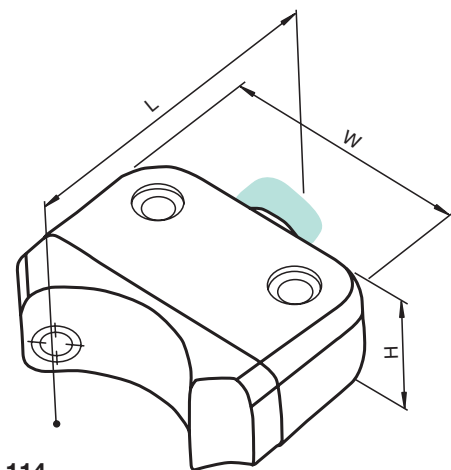
Model number	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	Connection type	Length L	Height H	CSA	UL
NBN3-F25-E8-5M	3	3-wire	PNP	Normally-open (NO)	500	10	Fixed cable	52	20	■	■
NBN3-F25-E9-V1	3	3-wire	PNP	Normally-closed (NC)	500	10	M12 connector plug	52	20	■	■
NBN3-F25F-E8-V1	3	3-wire	PNP	Normally-open (NO)	500	10	M12 connector plug	45	20	■	■
NBN3-F25L-E2-V1	3	3-wire	PNP	Normally-open (NO)	500	10	M12 connector plug	52	20	■	■
NBN3-F25R-E3-V1	3	3-wire	PNP	Normally-closed (NC)	500	10	M12 connector plug	52	20	■	■
NBN4-F25-2Z4L	4	2-wire	2-wire	Normally-open (NO)	500	5	Fixed cable	52	20		■
NBN4-F25-2Z4L-0,14M	4	2-wire	2-wire	Normally-open (NO)	500	5	Fixed cable	52	20		■
NBN4-F25-2Z4L-5M	4	2-wire	2-wire	Normally-open (NO)	500	5	Fixed cable	52	20		■
NBN4-F25-2Z4L-V1	4	2-wire	2-wire	Normally-open (NO)	500	5	M12 connector plug	52	20		■
NBN4-F25-E8	4	3-wire	PNP	Normally-open (NO)	1000	10	Fixed cable	52	20		■
NBN4-F25-E8-0,14M	4	3-wire	PNP	Normally-open (NO)	1000	10	Fixed cable	52	20		■
NBN4-F25-E8-V1	4	3-wire	PNP	Normally-open (NO)	1000	10	M12 connector plug	52	20		■
NBN4-F25K-2E2	4	3-wire	PNP	Normally-open (NO)	1000	10	Terminal compartment	69	20		■
NBN4-F25K-2Z4L	4	2-wire	2-wire	Normally-open (NO)	500	5	Terminal compartment	69	37.5		■
NBN4-F25K-E8	4	3-wire	PNP	Normally-open (NO)	1000	10	Terminal compartment	69	37.5		■

## Highlights

- Direct assembly on standard drives

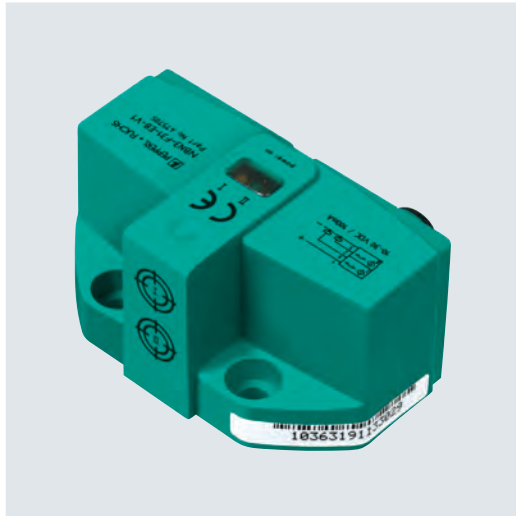
## Brief Description

The F25/F25K series is available as a cable, plug, or terminal compartment version and combines the two sensor elements in the smallest possible space. This makes them perfect for small basic applications, such as manual valves in indoor areas.



Accessories	
BT32XAS	Activator for F25 series
BT33	Activator for F25 series
BT34	Activator for F25 series
BT43-RG-01	Activator for F25 series including protective cover and mounting base
V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable

# Sensors for Valve Position Detection - F31/F31K Series



### Standard Technical Data

Type of installation	Flush mountable
Detection range	3 mm
Housing width W	65 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	SIL	Connection type	Length L	Height H	CCC	ATEX	CSA	EAC	UL
NBN3-F31-E8-K	3-wire	PNP	Normally-open (NO)	DC	500	10	30		Fixed cable	36	33.5					
NBN3-F31-E8-K-K	3-wire	PNP	Normally-open (NO)	DC	500	10	30		Fixed cable	36	33.5					
NBN3-F31-E8-V1	3-wire	PNP	Normally-open (NO)	DC	500	10	30		M12 connector plug	36	33.5					
NBN3-F31-E8-V16-V15	3-wire	PNP	Normally-open (NO)	DC	500	10	30			36	33.5					
NBN3-F31-E8-V18	3-wire	PNP	Normally-open (NO)	DC	500	10	30		M18 connector plug	36	33.5					
NBN3-F31-U8-K	4-wire		Normally-open (NO)	AC/DC	25	20	253		Fixed cable	36	33.5					
NBN3-F31-U8-V18	4-wire		Normally-open (NO)	AC/DC	25	20	253		M18 connector plug	36	33.5					
NBN3-F31-Z8-K	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		Fixed cable	36	33.5					
NBN3-F31-Z8-K-K	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		Fixed cable	36	33.5					
NBN3-F31-Z8-V1	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		M12 connector plug	36	33.5					
NBN3-F31-Z8-V18	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		M18 connector plug	36	33.5					
NBN3-F31K-E8	4-wire	PNP	Normally-open (NO)	DC	500	10	30		Terminal compartment	77.5	35.5					
NBN3-F31K-E8-K	4-wire	PNP	Normally-open (NO)	DC	500	10	30		Terminal compartment	77.5	35.5					
NBN3-F31K-E8-V1-V1	4-wire	PNP	Normally-open (NO)	DC	500	10	30		Terminal compartment	77.5	35.5					
NBN3-F31K-Z8	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		Terminal compartment	77.5	35					
NBN3-F31K-Z8-K	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		Terminal compartment	77.5	35					
NBN3-F31K-Z8-V1-V1	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		Terminal compartment	77.5	35					
NCN3-F31-B3-V1-K		AS-Interface	Normally open/close selectable	DC	100	26.5	31.9		M12 connector plug	36	33.5					
NCN3-F31-B3B-V1		AS-Interface	Normally open/close selectable	DC	100	26.5	31.9		M12 connector plug	36	33.5					
NCN3-F31-B3B-V1-K		AS-Interface	Normally open/close selectable	DC	100	26.5	31.9		M12 connector plug	36	33.5					
NCN3-F31-B3B-V1-V1		AS-Interface	Normally open/close selectable	DC	100	26.5	31.9		M12 connector plug	36	33.5					
NCN3-F31K-B3B-B31		AS-Interface	Normally open/close selectable	DC	100	26.5	31.9		Terminal compartment	77.5	35.5					
NCN3-F31K-N4	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2	2	Terminal compartment	77.5	35.5					
NCN3-F31K-N4-B13-S	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2	2	Terminal compartment	77.5	35.5					
NCN3-F31K-N4-K	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2	2	Terminal compartment	77.5	35.5					
NCN3-F31K-N4-K-S	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2	2	Terminal compartment	77.5	35.5					
NCN3-F31K-N4-S	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2	2	Terminal compartment	77.5	35.5					
NCN3-F31K-N4-V1-V1	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2	2	Terminal compartment	77.5	35.5					
NCN3-F31K-N5-K	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2		Terminal compartment	77.5	35.5					

### Highlights

- Direct assembly on standard drives
- Valve connection
- Versions up to SIL 2 available

### Brief Description

The F31/F31K series are used in applications on standard valve actuators in indoor and outdoor areas. They are very easy to assemble and are also available as a variant for hazardous areas.

# Sensors for Valve Position Detection - F31K2 Series



### Standard Technical Data

<b>Voltage type</b>	DC
<b>Connection type</b>	Terminal compartment
<b>Housing length L</b>	106 mm
<b>Housing width W</b>	100 mm
<b>Housing height H</b>	53 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	SIL	ATEX	EAC	UL
NBN3-F31K2-E8-B13-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30				■
NBN3-F31K2-E8-B33-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30			■	■
NBN3-F31K2-E8-B43-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30			■	■
NBN3-F31K2-Z8L-B13-S	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NBN3-F31K2-Z8L-B33-S	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NBN3-F31K2M-E8-B13-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30			■	■
NBN3-F31K2M-E8-B13-S-3G-3D	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30	■			
NBN3-F31K2M-E8-B23-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30			■	■
NBN3-F31K2M-E8-B33-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30			■	■
NBN3-F31K2M-E8-B43-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30			■	■
NBN3-F31K2M-Z8L-B13-S	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NBN3-F31K2M-Z8L-B13-S-3G-3D	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30				
NBN3-F31K2M-Z8L-B23-S	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NBN3-F31K2M-Z8L-B33-S	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NBN3-F31K2M-Z8L-B43-S	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NCN3-F31K2-N4-B13-S	Flush mountable	3	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	■		■
NCN3-F31K2-N4-B33-S	Flush mountable	3	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	■		
NCN3-F31K2-N5-B13-S	Flush mountable	3	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	■		■
NCN3-F31K2-N5-B33-S	Flush mountable	3	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	■		■
NCN3-F31K2M-N4-B13-S	Flush mountable	3	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	■		■
NCN3-F31K2M-N4-B23-S	Flush mountable	3	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2			■

### Highlights

- Easy to mount on standard valve actuators without the need for additional mounting aids
- Open solution with the highly visible integrated valve position indicator and translucent housing
- Flexible, modular housing design
- Tightly sealed thanks to inductive, noncontact detection of the valve position
- Optimized for outdoor use thanks to high resistance to UV, temperature, and salt water
- Versions up to SIL 2 available

### Brief Description

The F31K2 series, on the other hand, is specifically designed for uncompromising use outdoors. It combines flexibility with robustness and excellent performance, even under extreme conditions.

### Accessories

<b>BT115A</b>	Activator for F31 series
<b>BT115X</b>	Activator for F31 series
<b>BT65-F31K2-RG-EN</b>	Activator for F31K2 series
<b>BT65A</b>	Activator for F31 series
<b>BT65X</b>	Activator for F31 series
<b>SH-BT65-F31K2-01</b>	Protective cover for BT65-F31K2-RG-EN-01 activators
<b>SH-F31K2-B13</b>	Protective cover for mechanically protected assembly
<b>VMA-2+P/Z2-0,3M-PVC-V1-WY</b>	Valve connector, Form A to M12, 2+PE, LED, Z-diode, PVC cable

