



### Model Number

NCN20-F35-A2-250-10M-V1

### Features

- **Comfort series**
- **20 mm flush mountable**
- **Extended temperature range of sensor component**  
0 ... 250 °C (0 ... 482 °F)
- **10 m cable between sensor and amplifier with metal case**
- **Suitable for drag chains**
- **Minimum bending radius of 30 cm for movable laying**

## Technical Data

### General specifications

Switching element function		PNP	NO/NC
Rated operating distance	$s_n$	20 mm	
Installation		flush mountable	
Output polarity		DC	
Assured operating distance	$s_a$	0 ... 16.2 mm	
Reduction factor $r_{Al}$		0.5	
Reduction factor $r_{Cu}$		0.5	
Reduction factor $r_{304}$		0.6 ... 1	
Mounting angle		Al	
Amplifier housing		Stainless steel	

### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V	
Switching frequency	$f$	0 ... 20 Hz	
Hysteresis	$H$	0.3 ... 5 typ. 2 %	
Reverse polarity protection		reverse polarity protected	
Short-circuit protection		pulsing	
Voltage drop	$U_d$	$\leq 3$ V	
Operating current	$I_L$	0 ... 200 mA	
No-load supply current	$I_0$	$\leq 25$ mA	
Time delay before availability	$t_v$	$\leq 20$ ms	
Switching state indicator		Multihole-LED, yellow	

### Functional safety related parameters

MTTF <sub>d</sub>	7515 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

Ambient temperature	0 ... 250 °C (32 ... 482 °F)
---------------------	------------------------------

### Mechanical specifications

Connection type	Connector M12 x 1 , 4-pin
Cable version	PFA cable, with armour of stainless steel
Core cross-section	3 x 0.34 , screened
Housing material	PTFE / Al / 1.4305 / AISI 303
Sensing face	PTFE
Degree of protection	amplifier IP67 sensor IP40
Cable length	L = 10 m
Note	- amplifier 0 °C ... 70 °C - $r_{1.4305}$ dep. on thickness of measurement plate d: $r_{1.4305} = 1$ for $d < 1$ mm Additional accessory: Protective cover SH-F35 is available for use in areas where there is moisture and as a means of mechanical protection.

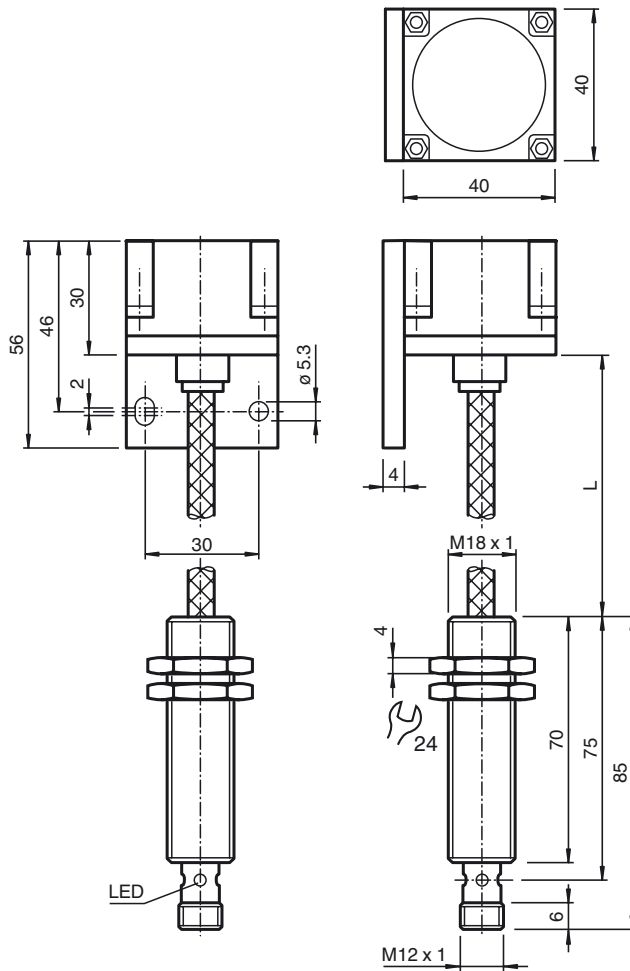
### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

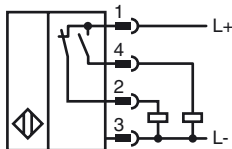
### Approvals and certificates

UL approval	cULus Listed, General Purpose, Class 2 Power Source
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

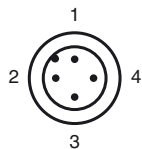
Dimensions



Electrical Connection



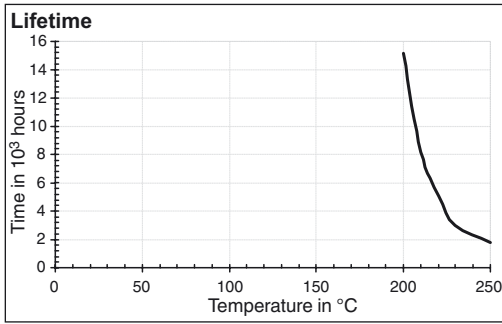
Pinout



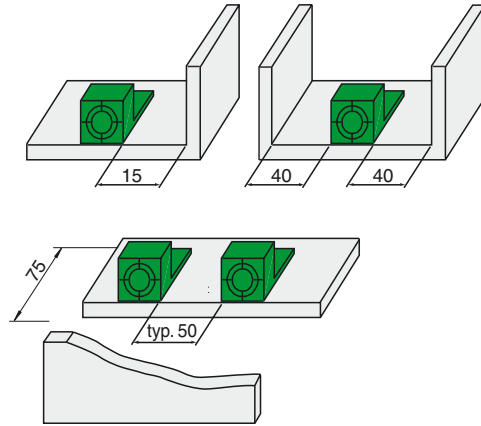
Wire colors in accordance with EN 60947-5-2

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

**Additional Information**

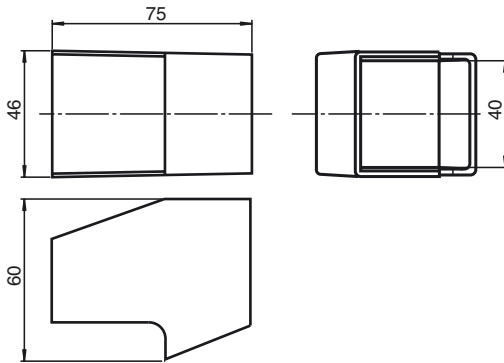


**Installation:**



**Accessories:**

Protective Cover SH-F35



Release date: 2015-03-11 07:50 Date of issue: 2015-03-11 187851\_eng.xml

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

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

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

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