



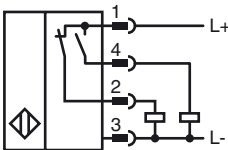
Model Number

NCN20-F35-A2-250-20M-V1

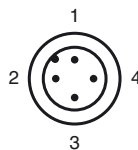
Features

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

Connection



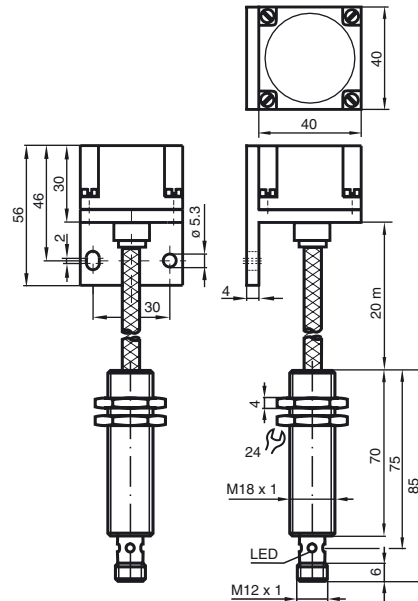
Pinout



Wire colors in accordance with EN 60947-5-2

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

Dimensions



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	≤ 3 V
Operating current	I_L	0 ... 200 mA
No-load supply current	I_0	≤ 25 mA
Time delay before availability	t_v	≤ 20 ms
Switching state indication		Multihole-LED, yellow

Functional safety related parameters

MTTF _d	7515 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

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

Connection type	Device 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
Protection degree	amplifier IP67 sensor IP40

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

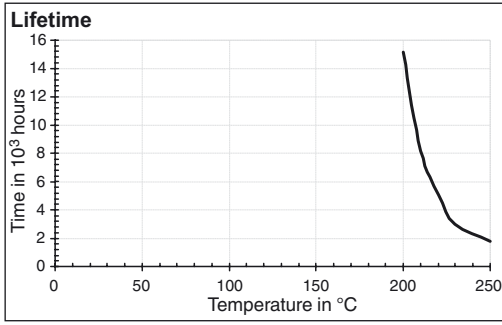
Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

Approvals and certificates

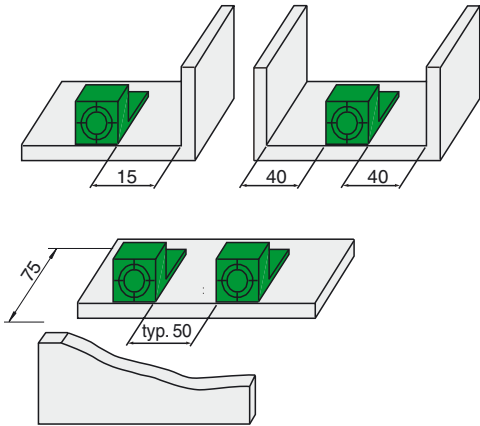
UL approval	cULus Listed, General Purpose, Class 2 Power Source
CSA approval	cCSAus Listed, General Purpose
CCC approval	Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval.

Release date: 2013-01-29 08:02 Date of issue: 2013-01-29 187524_eng.xml

Supplementary information



Installation:



Accessories:

Protective Cover SH-F35

