



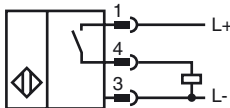
Model Number

NCB50-FP-E2-C-P3-V1

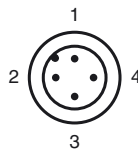
Features

- 50 mm embeddable
- 3-wire DC
- Weld Immune
- Optimum use at a distance >50 cm

Connection



Pinout



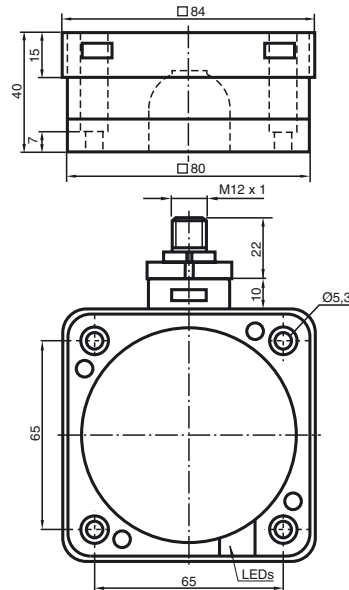
Wire colors in accordance with EN 60947-5-2

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

Accessories

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

Dimensions



Technical Data

General specifications

Switching element function		PNP NO
Rated operating distance	s_n	50 mm
Installation		embeddable
Output polarity		DC
Assured operating distance	s_a	0 ... 40.5 mm
Reduction factor r_{A1}		0.38
Reduction factor r_{Cu}		0.35
Reduction factor r_{303}		0.83

Nominal ratings

Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 1 Hz
Hysteresis	H	typ. 3 %
Reverse polarity protected		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA
No-load supply current	I_0	≤ 20 mA
Tuning-out		≥ 50 ms
Operating voltage display		LED, green
Indication of the switching state		LED, yellow

Functional safety related parameters

MTTF _d	940 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
---------------------	--------------------------------

Mechanical specifications

Connection type	Device connector M12 x 1 , 4-pin
Housing material	PBT/metal
Sensing face	PBT, active surface Teflon coated
Protection degree	IP68

Compliance with standards and directives

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

Approvals and certificates

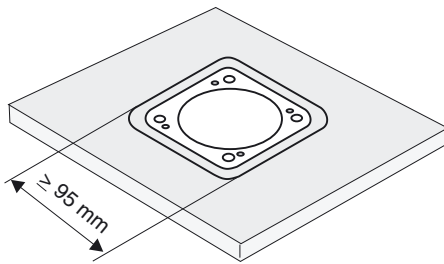
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	Certified by China Compulsory Certification (CCC)

Release date: 2011-07-25 10:23 Date of issue: 2011-07-25 187584_eng.xml

Installation hint

These sensors are especially designed for embeddable mounting in conveyor floors. Due to its precise location in metal base plates the sensor is afforded a high degree of mechanical protection. No clearance is required between the sensor and the base plate, avoiding the need for protective guarding to prevent possible foot injury.

The large sensing range ensures positive detection, and thus provides consistent control and monitoring of the conveyor.



Warning!
Once the metal screening has been removed, the sensor can no longer be embeddable mounted.