

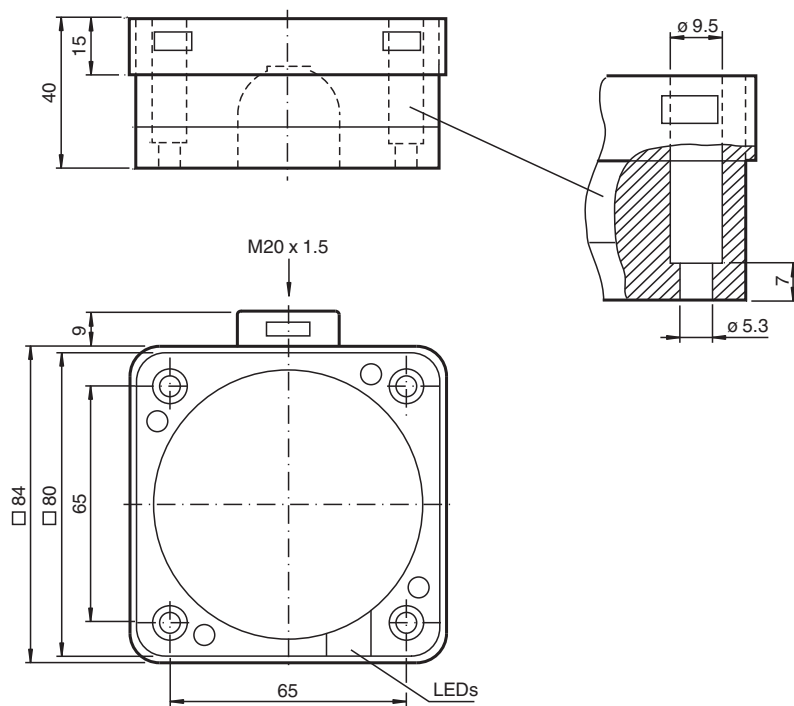


## Inductive sensor NCB50-FP-A2-P1-3G-3D

- 50 mm flush
- 4-wire DC
- ATEX-approval for zone 2 and zone 22



### Dimensions



### Technical Data

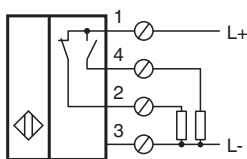
#### General specifications

Switching function		complementary
Output type		PNP
Rated operating distance	$s_n$	50 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 40.5 mm
Reduction factor $r_{AI}$		0.38
Reduction factor $r_{Cu}$		0.35
Reduction factor $r_{304}$		0.83

## Technical Data

Output type		4-wire
<b>Nominal ratings</b>		
Operating voltage	$U_B$	10 ... 60 V DC
Switching frequency	$f$	0 ... 80 Hz
Hysteresis	$H$	typ. 3 %
Reverse polarity protection		reverse polarity protected
Voltage drop	$U_d$	$\leq 3$ V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0 ... 0.5 mA
No-load supply current	$I_0$	$\leq 20$ mA
Time delay before availability	$t_v$	$\leq 300$ ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		670 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
CCC approval		Certified by China Compulsory Certification (CCC)
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
<b>Mechanical specifications</b>		
Connection type		screw terminals
Information for connection		A maximum of two conductors with the same core cross section may be mounted on one terminal connection! tightening torque 1.2 Nm + 10 %
Core cross-section		up to 2.5 mm <sup>2</sup> , stripped insulation length: 7 mm
Minimum core cross-section		min. 0.5 mm <sup>2</sup> (incl. wire-end ferrules when using flexible conductors)
Maximum core cross-section		max. 2.5 mm <sup>2</sup> (incl. wire-end ferrules when using flexible conductors)
Connection (system side)		screw terminals, M20 x 1.5 cable gland, usable thread length 10 mm, screw-in depth max. 10 mm
Housing material		PBT
Sensing face		PBT
Housing base		PBT
Degree of protection		IP67
<b>General information</b>		
Use in the hazardous area		see instruction manuals

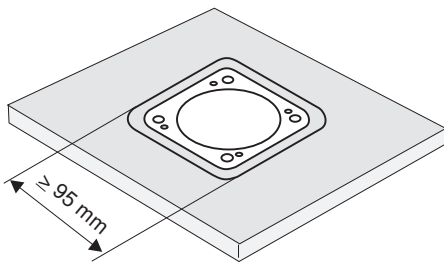
## Connection



## Mounting

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.