

Inductive sensor

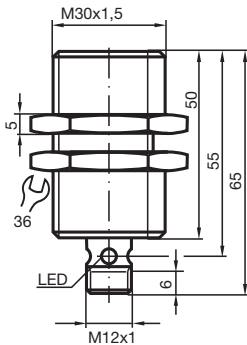
NBB15-30GM50-E2-V1-M-Y247437



- Basic series
- 15 mm flush
- Increased operating distance
- Extended temperature range -40 ... +85 °C
- E1-Type approval
- Increased noise immunity 100 V/m



Dimensions



Technical Data

General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	15 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 12.15 mm
Reduction factor r_{Al}		0.5
Reduction factor r_{Cu}		0.45
Reduction factor r_{304}		0.75

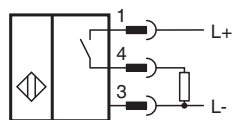
Nominal ratings

Operating voltage	U_B	10 ... 30 V
Switching frequency	f	0 ... 200 Hz

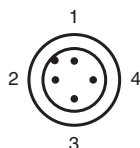
Technical Data

Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U _d	≤ 2.5 V
Operating current	I _L	0 ... 200 mA
Off-state current	I _r	0 ... 0.5 mA typ. 0.1 µA at 25 °C
No-load supply current	I ₀	≤ 10 mA
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
MTTF _d		950 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
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		CCC approval / marking not required for products rated ≤36 V
E1 Type approval		10R-04
Ambient conditions		
Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		Connector M12 x 1 , 4-pin
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP68 / IP69K

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Mounting

Emitted interference and interference immunity in accordance with motor vehicle directive 2006/28/EG (e1 Type approval)
Interference immunity in accordance with DIN ISO 11452-2: 100 V/m
Frequency band 20 MHz up to 2 GHz

Mains-borne interference in accordance with ISO 7637-2: Pulse 1 2a 2b 3a 3b 4 5
Severity level III III III III III III IV
Failure criterion C A C A A A C

EN 61000-4-2: CD: 8 kV / AD: 15 kV
Severity level IV IV
EN 61000-4-3: 30 V/m (80...2500 MHz)
Severity level IV
EN 61000-4-4: 2 kV
Severity level III
EN 61000-4-6: 10 V (0.01...80 MHz)
Severity level III
EN 55011: Class A

Accessories

	BF 30	Mounting flange, 30 mm
	V1-G-2M-PUR	Female cordset, M12, 4-pin, PUR cable
	V1-W-2M-PUR	Female cordset, M12, 4-pin, PUR cable
	EXG-30	Quick mounting bracket with dead stop