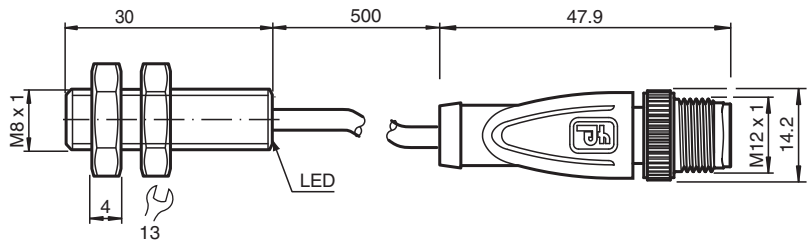


Inductive sensor

NBB2-8GM30-E2-0,5M-PUR-V1

- 2 mm flush
- Increased operating distance
- Extended temperature range -40 ... +85 °C

Dimensions



Technical Data

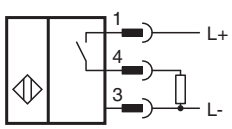
General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	2 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 1.62 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 8 mm x 8 mm x 1 mm
Reduction factor r_{Al}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.75
Reduction factor r_{Brass}		0.45
Output type		3-wire
Nominal ratings		
Operating voltage	U_B	5 ... 30 V
Switching frequency	f	0 ... 6000 Hz
Hysteresis	H	typ. 5%
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 1.5 V
Operating current	I_L	0 ... 100 mA
Off-state current	I_r	0 ... 0.2 mA
No-load supply current	I_0	≤ 10 mA

Release date: 2026-03-04 Date of issue: 2026-03-04 Filename: 304615-0214_eng.pdf

Technical Data

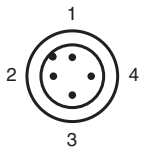
Time delay before availability	t_v	≤ 100 ms
Switching state indicator		LED, yellow
Safety-relevant product characteristics		
$MTTF_d$		960 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Approvals and certificates		
UL approval		cULus Listed Load Type: General Purpose Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 30 V DC Output Switching Current: 100 mA
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		fixed cable with plug
Housing material		brass, nickel-plated
Sensing face		LCP
Degree of protection		IP65 / IP66 / IP67
Connector		
Threading		M12 x 1
Number of pins		3
Cable		
Cable diameter		3.5 mm ± 0.1 mm
Bending radius		> 10 x cable diameter
Material		PUR
Color		grey
Number of cores		3
Core cross section		0.14 mm^2
Length	L	0.5 m
Dimensions		
Length		30 mm
Diameter		8 mm
General information		
Scope of delivery		2 hex nuts included

Connection Assignment



Release date: 2026-03-04 Date of issue: 2026-03-04 Filename: 304615-0214_eng.pdf

Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Release date: 2026-03-04 Date of issue: 2026-03-04 Filename: 304615-0214_eng.pdf