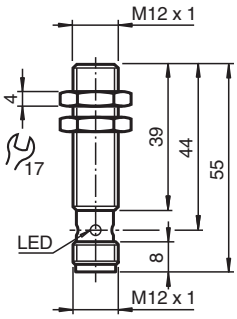
Inductive sensor

NBB2-12GS40-Z4L-V1-3G-3D



- 2 mm flush
- 2-wire DC sensor with minimum off-state current
- Switching status indicator, yellow LED
- ATEX-/IECEx-approvals for zone 2/22 (Ex ec/tc)
- Stainless steel housing
- Polarity reversal protected

Dimensions



Technical Data

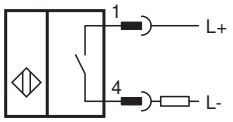
General specifications		
Switching function		Normally open (NO)
Output type		Two-wire with minimum off-state current
Rated operating distance	s_n	2 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 1.62 mm
Actual operating distance	s_r	1.8 ... 2.2 mm typ.
Reduction factor r_{Al}		0.3
Reduction factor r_{Cu}		0.17
Reduction factor r_{304}		0.7
Output type		2-wire
Nominal ratings		
Operating voltage	U_B	4 ... 30 V
Switching frequency	f	0 ... 700 Hz
Hysteresis	H	1 ... 10 % typ. 5 %
Reverse polarity protection		yes
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 4 V
Operating current	I_L	2 ... 30 mA
Lowest operating current	I_m	2 mA

Release date: 2025-06-12 Date of issue: 2025-06-15 Filename: 70134926-0002_eng.pdf

Technical Data

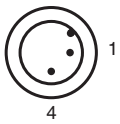
Off-state current	I_r	≤ 200 µA
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
$MTTF_d$		1558 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Approvals and certificates		
IECEx approval		
Equipment protection level Gc (ec)		IECEx TUR 21.0017X
Equipment protection level Dc (tc)		IECEx TUR 21.0018X
ATEX approval		
Equipment protection level Gc (ec)		TÜV 20 ATEX 8523 X
Equipment protection level Dc (tc)		TÜV 20 ATEX 8524 X
UL approval		cULus Listed, General Purpose, Class 2 Power Source
CCC approval		
Hazardous Location		2024322315005977 2024322315005859
KCC approval		
Hazardous Location		23-AV4BO-0236X
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		Connector plug
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP67
Connector		
Threading		M12 x 1
Number of pins		2
Mass		29 g
Dimensions		
Length		55 mm
Diameter		12 mm
General information		
Scope of delivery		2 self locking nuts in scope of delivery
Use in the hazardous area		see instruction manuals

Connection Assignment



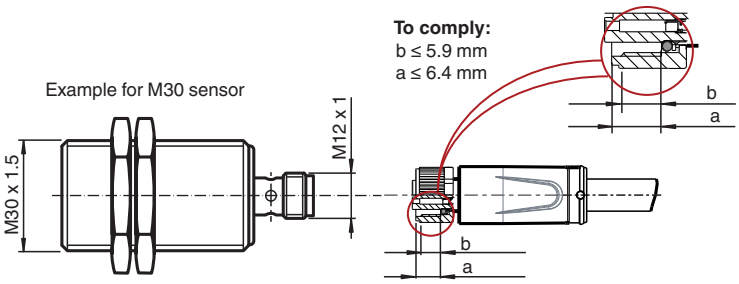
Release date: 2025-06-12 Date of issue: 2025-06-15 Filename: 70134926-0002_eng.pdf

Connection Assignment



Installation

Requirement for cable socket to achieve IP degree of protection



b = max. distance from start of thread to seal
a = max. distance from start of union nut to seal

Release date: 2025-06-12 Date of issue: 2025-06-15 Filename: 70134926-0002_eng.pdf