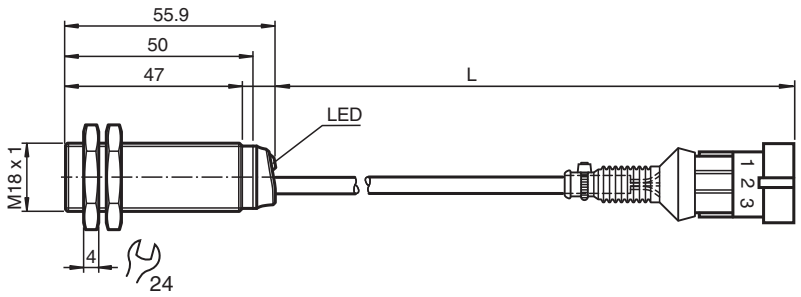


Inductive sensor

NBB8-18GM50-E2-Y0280

- 8 mm flush
- Increased operating distance
- Extended temperature range
  -40 ... +85 °C
- Extended operating voltage range
- Flexible use with versatile mounting opportunities

Dimensions



Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	8 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 6.48 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 24 mm x 24 mm x 1 mm
Reduction factor r_{Al}		0.38
Reduction factor r_{Cu}		0.35
Reduction factor r_{304}		0.74
Reduction factor r_{Brass}		0.47
Output type		3-wire
Nominal ratings		
Operating voltage	U_B	6 ... 36 V
Switching frequency	f	0 ... 1350 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 1 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	max. 20 µA

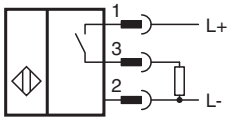
Release date: 2026-03-12 Date of issue: 2026-03-12 Filename: 326163-0280_eng.pdf

Technical Data

No-load supply current	I_0	≤ 10 mA
Time delay before availability	t_v	≤ 10 ms
Switching state indicator		LED, yellow
Safety-relevant product characteristics		
$MTTF_d$		1610 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Conformity		
PWIS conformity		VDMA 24364-C1/T100°C-W
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Approvals and certificates		
Protection class		II
Rated insulation voltage	U_i	36 V
Rated impulse withstand voltage	U_{imp}	500 V
UL approval		cURus Recognized Load Type: General Purpose Circuitry: Class 2 Power Source Supply/Switching Voltage: 36 V DC Output Switching Current: 200 mA Further UL information see section "Additional Information"
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 , white bronze coated
Sensing face		PBT , green
Degree of protection		IP65 / IP66 / IP67 / IP68
Connector		AMP connector
Number of pins		3
Connection assembly		AMP housing 282105-1 AMP crimp 282404-1 AMP sealing 281934-4 Cable bushing: Copat 108705
Cable		
Cable diameter		4.3 mm ± 0.15 mm
Bending radius		> 10 x cable diameter
Material		PVC
Color		black
Number of cores		3
Core cross section		0.34 mm^2
Length	L	1.12 m
Mass		112 g
Dimensions		
Length		56 mm
Diameter		18 mm
Mounting		with nuts, M18
Tightening torque		≤ 30 Nm
General information		
Scope of delivery		2 self locking nuts in scope of delivery

Release date: 2026-03-12 Date of issue: 2026-03-12 Filename: 326163-0280_eng.pdf

Connection Assignment



Additional Information

Additional UL Information
Conditions of Acceptability:
Suitability of the mounting means shall be determined in the end use application. The suitability of connection between supply connection and the end connector shall be determined in the end-use application.
The supply connections for these devices are intended for factory wiring only.
These devices shall be used within their recognized electrical ratings.
These proximity switches are intended to be powered by Listed Class 2 power supply or are located in a limited voltage / limited current circuit.

Release date: 2026-03-12 Date of issue: 2026-03-12 Filename: 326163-0280_ eng.pdf