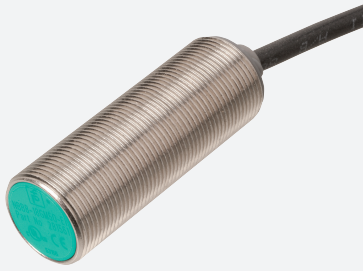


Inductive sensor

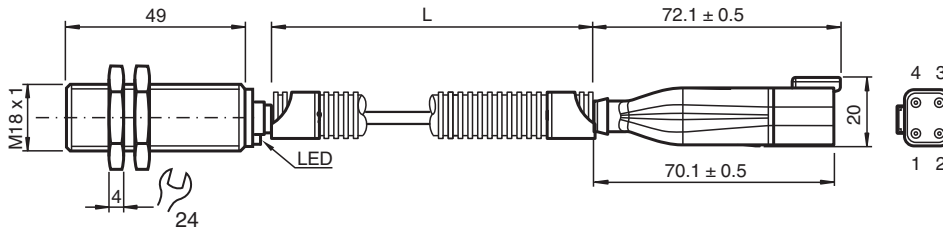
NBB8-18GM50-A0-M1-Y



- 8 mm flush
- Increased operating distance
- Extended temperature range
-40 ... +85 °C
- With increased sealing, protection class
IP68 / IP69K
- E1-Type approval



Dimensions



Technical Data

General specifications

Switching function	complementary	
Output type	NPN	
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}	0.4	
Reduction factor r_{Cu}	0.3	
Reduction factor r_{304}	0.7	
Reduction factor r_{Brass}	0.45	
Output type	4-wire	

Nominal ratings

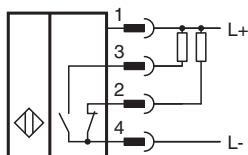
Operating voltage	U_B	7 ... 30 V
Switching frequency	f	0 ... 1600 Hz
Hysteresis	H	typ. 5%
Reverse polarity protection	reverse polarity protected	
Short-circuit protection	pulsing	
Voltage drop	U_d	≤ 2 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 4 μ A at 25 °C
No-load supply current	I_0	≤ 10 mA

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Technical Data

Time delay before availability	t_v	≤ 100 ms
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		1484 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		cURus Recognized Load Type: General Purpose Circuitry: Class 2 Power Source Supply/Switching Voltage: 30 V DC Output Switching Current: 200 mA
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)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		fixed cable with plug
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP68 / IP69K
Connector		
Number of pins		4
Connection assembly		Deutsch housing DT04-4P-CE02 Deutsch wedge W4P Amphenol contact AT60-16-0822
Cable		
Wire end ferrules		yes
Cable diameter		4.3 mm \pm 0.1 mm
Bending radius		> 10 x cable diameter
Material		PUR
Color		black
Number of cores		4
Core cross section		0.34 mm ²
Length	L	250 mm
Cable protection		Schlemmer corrugated tube 1213007
Mass		90 g
Dimensions		
Length		50 mm
Diameter		18 mm
General information		
Scope of delivery		2 self locking nuts and 1 TC-18-U protection cap are in scope of delivery

Connection Assignment



Technical Features

Mains-borne interference in accordance with ISO 7637-2:

Pulse	1	2a	2b	3a	3b	4
Severity level	III	III	III	III	III	III
Failure criterion	A	A	C	A	A	C

EN 61000-4-2: CD: 8 kV / AD: 15 kV
Severity level IV IV

EN 61000-4-3: 36 V/m (80...2500 MHz)
Severity level IV

EN 61000-4-4: 2 kV
Severity level III

EN 61000-4-6: 30 V (0.01...80 MHz)
Severity level III

EN 55011: Class A