

Inductive sensor

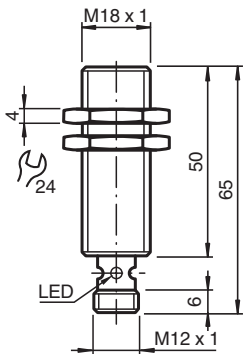
NBB5-18GM50-E2-V1



- 5 mm flush
- Extended temperature range



Dimensions



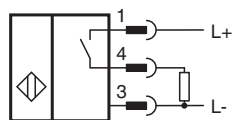
Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	5 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 4.05 mm (-25 ... 70 °C (-13 ... 158 °F)) 0 ... 3.8 mm (-40 ... -25 °C (-40 ... -13 °F))
Reduction factor r_{AI}		0.3
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.7
Nominal ratings		
Operating voltage	U_B	10 ... 30 V
Switching frequency	f	0 ... 800 Hz
Hysteresis	H	typ. 5%
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing

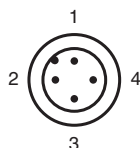
Technical Data

Voltage drop	U_d	$\leq 3\text{ V}$
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	$\leq 20\text{ mA}$
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
MTTF _d		1740 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		
EAC conformity		TR CU 020/2011
Protection class		II
Rated insulation voltage	U_i	60 V
Rated impulse withstand voltage	U_{imp}	800 V
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated $\leq 36\text{ V}$
Ambient conditions		
Ambient temperature		-40 ... 70 °C (-40 ... 158 °F)
Mechanical specifications		
Connection type		Connector M12 x 1 , 4-pin
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Accessories

	BF 18	Mounting flange, 18 mm
	V1-G-2M-PUR	Female cordset, M12, 4-pin, PUR cable
	V1-W-2M-PUR	Female cordset, M12, 4-pin, PUR cable
	EXG-18	Quick mounting bracket with dead stop

Release date: 2020-03-20 Date of issue: 2020-03-30 Filename: 084195_eng.pdf