

Inductive sensor

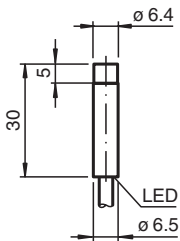
NBN3-6,5M30-E0-0,3M-V3



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



Dimensions



Technical Data

General specifications

Switching function		Normally open (NO)
Output type		NPN
Rated operating distance	s_n	3 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	s_a	0 ... 2.43 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 9 mm x 9 mm x 1 mm
Reduction factor r_{Al}		0.55
Reduction factor r_{Cu}		0.5
Reduction factor r_{304}		0.75
Reduction factor r_{Brass}		0.55
Output type		3-wire

Nominal ratings

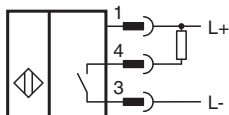
Operating voltage	U_B	5 ... 30 V
Switching frequency	f	0 ... 4500 Hz
Hysteresis	H	typ. 5%
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 1.5 V
Operating current	I_L	0 ... 100 mA
Off-state current	I_r	0 ... 0.2 mA
No-load supply current	I_0	≤ 10 mA

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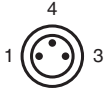
Technical Data

Time delay before availability	t_v	≤ 100 ms
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		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, General Purpose
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		M8 x 1
Number of pins		3
Cable		
Cable diameter		4.2 mm \pm 0.15 mm
Bending radius		> 15 x cable diameter
Material		PVC
Color		black
Number of cores		3
Core cross section		0.25 mm ²
Length	L	0.3 m
Dimensions		
Length		30 mm
Diameter		6.5 mm

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

1		BN	(brown)
3		BU	(blue)
4		BK	(black)