

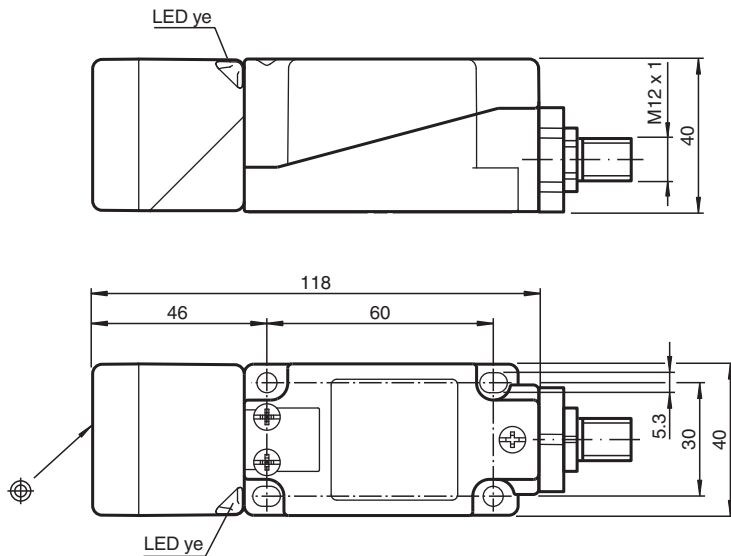


Inductive sensor NBN40-U4K-N0-V1

- 40 mm non-flush
- Sensor head bidirectional and rotatable
- NAMUR output
- Polarity reversal protected



Dimensions



Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	40 mm
Installation		non-flush
Assured operating distance	s_a	0 ... 32.4 mm
Actual operating distance	s_r	36 ... 44 mm
Reduction factor r_{Al}		0.31
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.74
Output type		2-wire

Nominal ratings

Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Switching frequency	f	0 ... 150 Hz
Hysteresis	H	typ. 5 %

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Technical Data

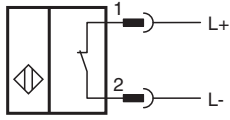
Reverse polarity protection	reverse polarity protected
Short-circuit protection	yes
Current consumption	
Measuring plate not detected	min. 2.2 mA
Measuring plate detected	≤ 1 mA
Switching state indicator	LED, yellow
Functional safety related parameters	
MTTF _d	1415 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %
Compliance with standards and directives	
Standard conformity	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Electromagnetic compatibility	NE 21:2007
Standards	EN IEC 60947-5-2
Approvals and certificates	
IECEX approval	
Equipment protection level Ga	IECEX PTB 11.0021X
Equipment protection level Gb	IECEX PTB 11.0021X
Equipment protection level Da	IECEX PTB 11.0021X
ATEX approval	
Equipment protection level Ga	PTB 00 ATEX 2032 X
Equipment protection level Gb	PTB 00 ATEX 2032 X
Equipment protection level Da	PTB 00 ATEX 2032 X
UL approval	
Ordinary Location	E87056
Hazardous Location	E501628
Control drawing	116-0451
CCC approval	
Hazardous Location	2020322315002303
NEPSI approval	
NEPSI certificate	GYJ16.1394X
CML approval	on request
Marine approval	DNVGL TAA00001A5
Ambient conditions	
Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
Storage temperature	-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications	
Connection type	Connector plug
Housing material	PA/metal
Sensing face	PA
Degree of protection	IP68 / IP69K
Connector	
Threading	M12 x 1
Number of pins	4
Mass	225 g
Dimensions	
Height	40 mm
Width	40 mm
Length	118 mm
Note	Tightening torque: 1.8 Nm (housing)
General information	

Technical Data

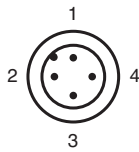
Use in the hazardous area

see instruction manuals

Connection Assignment



Connection Assignment



Wire colors in accordance with EN 60947-5-6

1		BN	(brown)
2		BU	(blue)