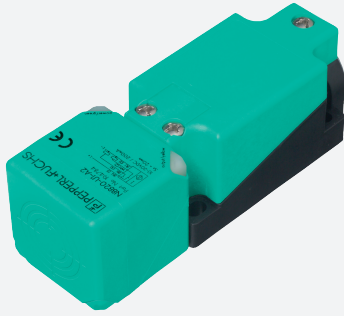


Inductive sensor

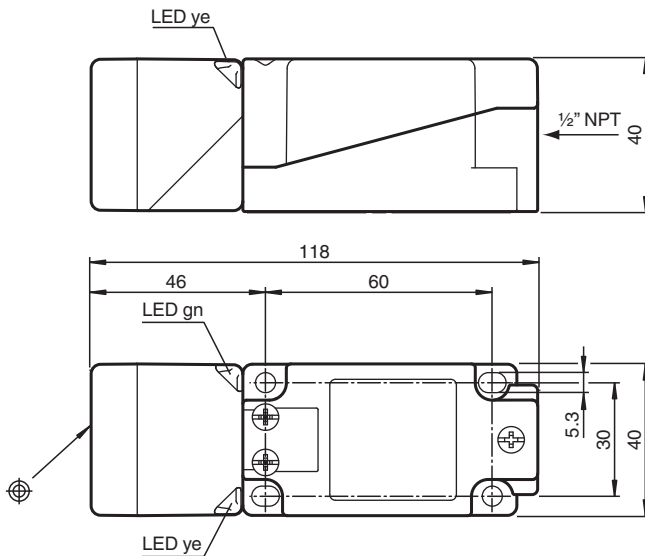
NBN40-U2-UU



- Sensor head bidirectional and rotatable
- NO/NC selectable



Dimensions



Technical Data

General specifications

Switching function		Normally open/closed (NO/NC)
Output type		Two-wire
Rated operating distance	s_n	40 mm
Installation		non-flush
Output polarity		AC/DC
Assured operating distance	s_a	0 ... 32.4 mm
Actual operating distance	s_r	36 ... 44 mm typ. 40 mm
Reduction factor r_{Al}		0.37
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.73
Reduction factor r_{Fe}		1
Reduction factor r_{Brass}		0.4
Output type		2-wire

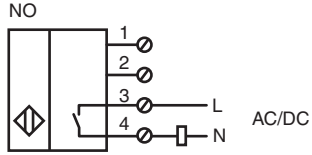
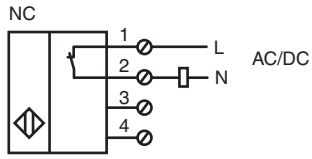
Nominal ratings

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Technical Data

Switching frequency	f	AC, 0 ... 30 Hz DC, 0 ... 100 Hz
Hysteresis	H	1 ... 10 % typ. 5 %
Reverse polarity protection		reverse polarity tolerant
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 5 V (typ. 2V) DC operation ≤ 8 V (typ. 3 V) AC operation
Momentary current (20 ms, 0.1 Hz)		0 ... 3000 mA
Operating current	I_L	5 ... 500 mA
Rated operating current	I_e	500 mA 50/60 Hz
Lowest operating current	I_m	5 mA
Off-state current	I_r	≤ 1.5 mA
Usage category		AC12 , AC140 , DC12 , DC13
Time delay before availability	t_v	≤ 300 ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Error indicator		flashes when overcurrent
Functional safety related parameters		
MTTF _d		540 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Electrical specifications		
Rated operating voltage	U_e	24 ... 250 V DC / 24 ... 230 V AC
Operating voltage	U_B	20 ... 275 V DC / 20 ... 253 V AC
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Approvals and certificates		
Protection class		II
Rated insulation voltage	U_i	230 V
Rated impulse withstand voltage	U_{imp}	2.5 kV
UL approval		cULus Listed, General Purpose "For use in NFPA 79 Applications only" For overcurrent protection, install a fuse with a rated current of max. 3 A and at least 300 V AC/DC
CCC approval		Ue 75VDC - 250VDC Ue 75VAC - 230VAC
Ambient conditions		
Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
Storage temperature		-25 ... 85 °C (-13 ... 185 °F)
Pollution degree		3
Mechanical specifications		
Connection type		terminal compartment
Core cross section		up to 2.5 mm ²
Housing material		PA 6.6 / metal
Sensing face		PA 6.6
Housing base		plastic
Degree of protection		IP67
Mass		255 g
Dimensions		
Height		40 mm
Width		40 mm
Length		118 mm
Note		Tightening torque: 1.8 Nm (housing)

Connection



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Connection

Note

The sensor is designed for individual operation. A series or parallel connection of sensors is not permissible.