

Inductive sensor

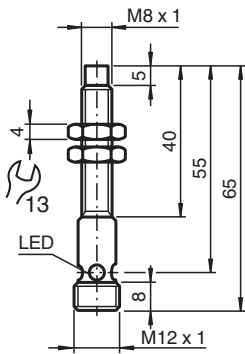
NRN6-8GH40-E2-V1



- 6 mm non-flush
- Reduction factor = 1
- Magnetic field resistant
- Stainless steel housing
- Front face FDA conform



Dimensions



Technical Data

General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	6 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	s_a	0 ... 4.86 mm
Reduction factor r_{Al}		1
Reduction factor r_{Cu}		1
Reduction factor r_{304}		1
Reduction factor r_{S137}		1
Output type		3-wire

Nominal ratings

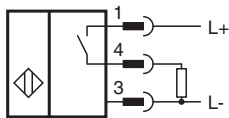
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 2500 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 2 V
Operating current	I_L	0 ... 200 mA

Release date: 2025-06-11 Date of issue: 2025-06-11 Filename: 233615_eng.pdf

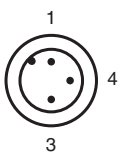
Technical Data

Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μ A at 25 °C
No-load supply current	I_0	\leq 15 mA
Constant magnetic field	B	200 mT
Alternating magnetic field	B	200 mT
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
MTTF _d		1010.5 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 Load Type: General Purpose Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 30 V DC Output Switching Current: 200 mA
CCC approval		CCC approval / marking not required for products rated \leq 36 V
Ambient conditions		
Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		Connector plug
Housing material		Stainless steel 1.4404 / AISI 316L
Sensing face		LCP, (conforms with FDA)
Degree of protection		IP67
Connector		
Threading		M12 x 1
Number of pins		3
Dimensions		
Length		40 mm
Diameter		8 mm

Connection Assignment



Connection Assignment



Connection Assignment

Wire colors in accordance with EN 60947-5-2

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