



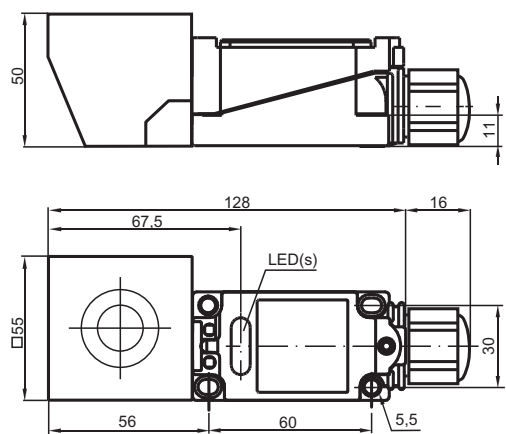
Inductive sensor

NJ40+U1+E2-Y281474

■ Comfort series



Dimensions



Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s _n	40 mm
Installation		non-flush
Output polarity		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}		0.5
Reduction factor r _{Cu}		0.45
Reduction factor r ₃₀₄		0.8
Nominal ratings		
Operating voltage	U _B	10 ... 30 V
Switching frequency	f	0 ... 100 Hz
Hysteresis	H	1 ... 10 typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U _d	≤ 2.8 V

Technical Data

Voltage drop at I_L		
Voltage drop $I_L = 1 \text{ mA}$, switching element on	U_d	0.5 ... 2.3 V typ. 0.9 V
Voltage drop $I_L = 10 \text{ mA}$, switching element on	U_d	0.8 ... 2.2 V typ. 1.4 V
Voltage drop $I_L = 20 \text{ mA}$, switching element on	U_d	0.9 ... 2.3 V typ. 1.5 V
Voltage drop $I_L = 50 \text{ mA}$, switching element on	U_d	0.9 ... 2.5 V typ. 1.6 V
Voltage drop $I_L = 100 \text{ mA}$, switching element on	U_d	1 ... 2.6 V typ. 1.8 V
Voltage drop $I_L = 200 \text{ mA}$, switching element on	U_d	1.2 ... 2.8 V typ. 2 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.01 mA
Off-state current $T_U = 40^\circ\text{C}$, switching element off		$\leq 100 \mu\text{A}$
No-load supply current	I_0	$\leq 10 \text{ mA}$
Time delay before availability	t_v	$\leq 100 \text{ ms}$
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		684 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		
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		$-25 \dots 70^\circ\text{C}$ ($-13 \dots 158^\circ\text{F}$)
Storage temperature		$-25 \dots 85^\circ\text{C}$ ($-13 \dots 185^\circ\text{F}$)
Mechanical specifications		
Connection type		terminal compartment
Information for connection		A maximum of two conductors with the same core cross section may be mounted on one terminal connection! tightening torque 1.2 Nm + 10 %
Core cross-section		up to 2.5 mm^2
Minimum core cross-section		without wire end ferrule 0.5 mm^2 , with connector sleeves 0.34 mm^2
Maximum core cross-section		without wire end ferrule 2.5 mm^2 , with connector sleeves 1.5 mm^2
Cable gland		
Note		Sealing ring: Hole diameter 7 / 10.5 / 13 / 16 mm The dimension of the connection cable must correspond to the hole selected on the sealing ring.
Housing material		PBT with Viton seals and PVDF screwed connection
Sensing face		PBT
Degree of protection		IP68

Connection

