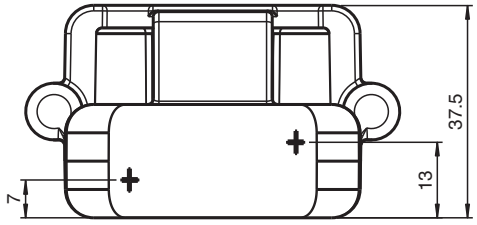


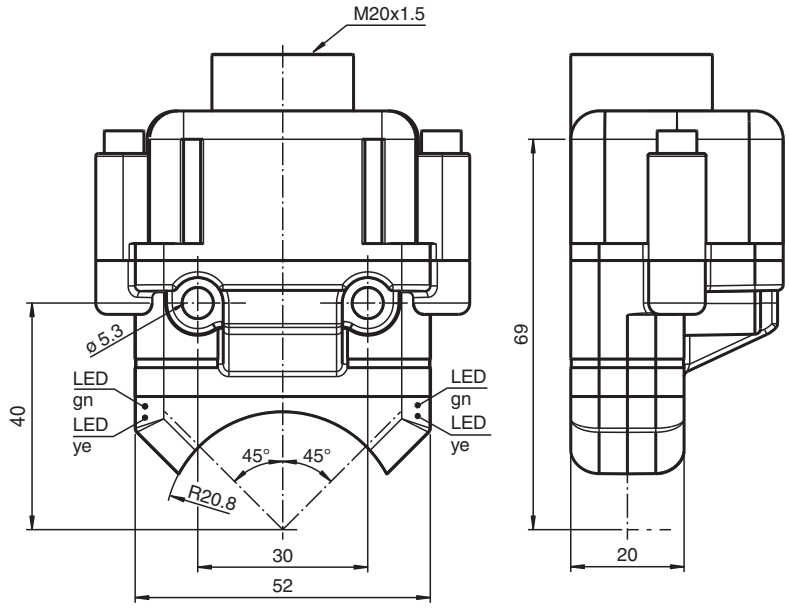
Inductive sensor

NBN4-F25K-2E2

- Direct mounting on standard actuators
- Small construction with sturdy plastic housing of protection class IP 67
- Plug-in terminals
- LED for power on

Dimensions





Technical Data

General specifications		
Switching function		2 x normally open (NO)
Output type		PNP
Rated operating distance	s_n	4 mm
Installation		flush mountable
Output polarity		DC

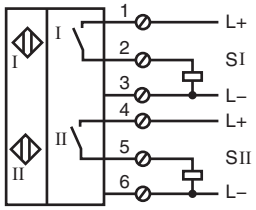
Release date: 2025-07-02 Date of issue: 2025-07-02 Filename: 264857_eng.pdf

Technical Data

Assured operating distance	s_a	0 ... 3.24 mm
Actual operating distance	s_r	3.6 ... 4.4 mm typ.
Reduction factor r_{Al}		0.5
Reduction factor r_{Cu}		0.4
Reduction factor r_{304}		1
Reduction factor r_{St37}		1.1
Output type		3-wire
Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 1000 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 2.5 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 µA at 25 °C
No-load supply current	I_0	≤ 22.5 mA
Time delay before availability	t_v	≤ 100 ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Functional safety related parameters		
$MTTF_d$		860 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 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 ≤36 V
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection (system side)		screw terminal , M20 x 1.5 cable gland
Housing material		PBT
Sensing face		PC
Degree of protection		IP67
Mass		98 g
Tightening torque, fastening screws		M5 x 40 : ≤ 2.7 Nm
Tightening torque, housing screws		M4 x 25 : 2 Nm
Dimensions		
Height		20 mm
Width		52 mm
Length		69 mm
Note		Mounted on mechanical drive

Release date: 2025-07-02 Date of issue: 2025-07-02 Filename: 264857_eng.pdf

Connection Assignment



Release date: 2025-07-02 Date of issue: 2025-07-02 Filename: 264857_eng.pdf