



Model Number

NJ8-18GM50-E-V1

Features

- Comfort series
- 8 mm non-flush

Accessories

BF 18

Mounting flange, 18 mm

V1-G

Female connector, M12, 4-pin, field attachable

V1-W

Female connector, M12, 4-pin, field attachable

V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

Technical Data

General specifications

Switching function	Normally open (NO)
Output type	NPN
Rated operating distance	s_n 8 mm
Installation	non-flush
Output polarity	DC
Assured operating distance	s_a 0 ... 6.48 mm
Actual operating distance	s_r 7.2 ... 8.8 mm typ. 8 mm
Reduction factor r_{Al}	0.42
Reduction factor r_{Cu}	0.4
Reduction factor r_{304}	0.72
Reduction factor r_{Brass}	0.5

Nominal ratings

Installation conditions	
A	10 mm
B	54 mm
C	24 mm
Operating voltage	U_B 10 ... 60 V
Switching frequency	f 0 ... 1000 Hz
Hysteresis	H 1 ... 10 typ. 6 %
Reverse polarity protection	reverse polarity protected
Short-circuit protection	pulsing
Voltage drop	U_d ≤ 3 V
Voltage drop at I_L	
Voltage drop $I_L = 100$ mA, switching element on U_d	1.5 ... 2.5 V typ. 1.9 V

Design data

Operating current	I_L 0 ... 200 mA
Lowest operating current	I_m 0 mA
Off-state current	I_r 0 ... 0.5 mA typ. 0.01 mA
Off-state current $T_U = 40$ °C, switching element off	≤ 100 µA
No-load supply current	I_0 ≤ 9 mA
Time delay before availability	t_v ≤ 30 ms
Switching state indicator	LED, yellow

Functional safety related parameters

MTTF _d	1410 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications

Connection type	Connector M12 x 1, 3-pin
Housing material	Stainless steel 1.4305 / AISI 303
Sensing face	PBT
Degree of protection	IP67

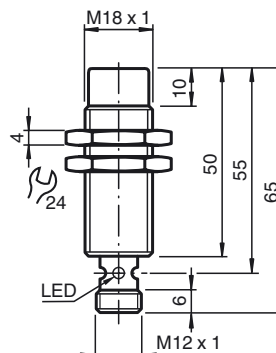
Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

Approvals and certificates

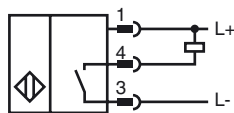
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	Certified by China Compulsory Certification (CCC)

Dimensions

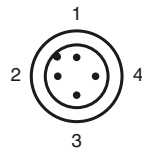




Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)