Technical Data

General specifications

Switching element function		PNP	NO
Rated operating distance	s_n	2 mm	
Installation		flush	
Output polarity		DC	
Assured operating distance	s_a	0 ... 1.62 mm	
Actual operating distance	s_r	1.8 ... 2.2 mm typ.	
Reduction factor r_{Al}		0.23	
Reduction factor r_{Cu}		0.21	
Reduction factor r_{304}		0.7	

Nominal ratings

Operating voltage	U_B	10 ... 60 V
Switching frequency	f	0 ... 3000 Hz
Hysteresis	H	1 ... 10 typ. 3 %
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		1.2 ... 2.5 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	≤ 0.5 mA
No-load supply current	I_0	≤ 9 mA
Time delay before availability	t_v	≤ 20 ms
Switching state indicator		LED, yellow

Functional safety related parameters

$MTTF_d$	750 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 , 4-pin
Housing material	Stainless steel 1.4305 / AISI 303
Sensing face	PBT
Degree of protection	IP67

General information

Scope of delivery	2 self locking nuts in scope of delivery

Compliance with standards and directives

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

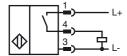**Approvals and certificates**

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

Model Number

NJ2-12GM40-E2-V1

Features

• **2 mm flush**

Accessories

BF 12
Mounting flange, 12 mm
EXG-12
Quick mounting bracket with dead stop
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

Dimensions

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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1

Electrical Connection

Pinout

Wire colors in accordance with EN 60947-5-2

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

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".