



CE

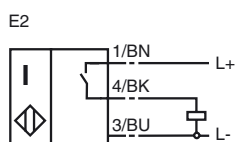
### Model Number

NJ4-12GM40-E2-V1-3D

### Features

- Comfort series
- 4 mm not embeddable

### Connection

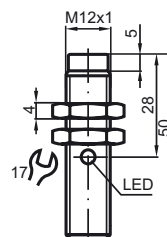


### Accessories

#### BF 12

Mounting flange

## Dimensions



## Technical Data

### General specifications

Switching element function	PNP Make function
Rated operating distance	$s_n$ 4 mm
Installation	not embeddable
Output polarity	DC
Assured operating distance	$s_a$ 0 ... 3.24 mm
Reduction factor $r_{Al}$	0.37
Reduction factor $r_{Cu}$	0.36
Reduction factor $r_{V2A}$	0.74

### Nominal ratings

Operating voltage	$U_B$	10 ... 60 V
Switching frequency	$f$	0 ... 2000 Hz
Hysteresis	$H$	1 ... 10 typ. 3 %
Reverse polarity protection		protected against reverse polarity
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3$ V
Operating current	$I_L$	0 ... 200 mA
No-load supply current	$I_0$	$\leq 15$ mA
Indication of the switching state		LED, yellow

### Standard conformity

Standards	IEC / EN 60947-5-2:2004
-----------	-------------------------

### Ambient conditions

Ambient temperature	-25 ... 70 °C (248 ... 343 K)
Storage temperature	-40 ... 85 °C (233 ... 358 K)



### Mechanical specifications

Connection type	V1-connector
Core cross-section	-
Housing material	Stainless steel
Sensing face	PBT
Protection degree	IP67

### General information

Use in the hazardous area	see instruction manuals
Category	3D

**ATEX 3D**

Instruction	<b>Manual electrical apparatus for hazardous areas</b>
<b>Device category 3D</b>	for use in hazardous areas with non-conducting combustible dust
Directive conformity	94/9/EG
Standard conformity	EN 50281-1-1
	Protection via housing
	Use is restricted to the following stated conditions
CE symbol	
Ex-identification	 II 3D IP67 T 96 °C X The Ex-significant identification is on the enclosed adhesive label
General	The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The data stated in the data sheet are restricted by this operating instruction! The special conditions must be adhered to!
Installation, Commissioning	Laws and/or regulations and standards governing the use or intended usage goal must be observed. The adhesive label provided must be affixed in the immediate vicinity of the sensor! The surface to which the label is applied must be clean, flat and free from grease! The affixed adhesive label must be readable and durable, taking account of the possibility of chemical corrosion!
Maintenance	No changes can be made to apparatus, which are operated in hazardous areas. Repairs to these apparatus are not possible.
[Fett]Special conditions	
Maximum operating current $I_L$	The maximum permissible load current must be restricted to the values given in the following list. High load currents and load short-circuits are not permitted.
Maximum operating voltage $U_{Bmax}$	The maximum permissible operating voltage $U_{Bmax}$ must be restricted to the values given in the following list. Tolerances are not permitted.
Maximum heating (Temperature rise)	dependant of the load current $I_L$ and the max. operating voltage $U_{Bmax}$ . Information can be taken from the following list. The maximum surface temperature at maximum ambient temperature is given in the Ex identification of the apparatus.
at $U_{Bmax}=30\text{ V}$ , $I_L=200\text{ mA}$	26 °C
at $U_{Bmax}=30\text{ V}$ , $I_L=100\text{ mA}$	18 °C
Plug connector	The plug connector must not be disconnected under voltage. The proximity switch is marked as follows: "DO NOT DISCONNECT UNDER VOLTAGE!" When the plug connector is disconnected the ingress of dirt into the inner areas (i.e. the areas, which are not accessible in the plugged-in condition) must be prevented. The plug connection can only be separated using a tool. This is achieved by using the locking protection V1-Clip (Mounting accessory from Pepperl + Fuchs).
Protection from mechanical danger	The sensor must not be mechanically damaged.
Electrostatic charging	Electrostatic charges on the metal housing components must be avoided. Dangerous electrostatic charges on the metal housing components can be avoided by incorporating these components in the equipotential bonding.