



Model Number

NEN6-8GM45-E1-V3

Features

- Increased operating distance
- 6 mm non-flush

Accessories

BF 8

Mounting flange, 8 mm

V3-GM

Female connector, M8, 3-pin, field attachable

V3-WM

Female connector, M8, 3-pin, field attachable

V3-WM-2M-PUR

Cable socket, M8, 3-pin, PUR cable

Technical Data

General specifications

Switching element function		NPN	NC
Rated operating distance	s_n	6 mm	
Installation		non-flush	
Output polarity		DC	
Assured operating distance	s_a	0 ... 4.86 mm	
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2)	
		18 mm x 18 mm x 1 mm	
Reduction factor r_{Al}		0.5	
Reduction factor r_{Cu}		0.45	
Reduction factor r_{304}		0.8	
Reduction factor r_{Brass}		0.55	

Nominal ratings

Installation conditions

A		in steel 1.0037 (St37): 8 mm
B		12 mm
C		18 mm
F		28 mm
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 750 Hz
Hysteresis	H	0.06 ... 0.6 mm
Reverse polarity protection		yes
Short-circuit protection		pulsing
Overload resistance		yes
Wire breakage protection		yes
Surge suppression		yes
Ripple		10 %
Voltage drop	U_d	≤ 2 V
Repeat accuracy	R	0.3 mm
Operating current	I_L	0 ... 200 mA, above 50°C ≤ 150 mA
Off-state current	I_r	≤ 10 μ A
No-load supply current	I_0	≤ 15 mA
Time delay before availability	t_v	≤ 50 ms
Switching state indicator		LED, yellow

Functional safety related parameters

MTTF _d	1740 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

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

Mechanical specifications

Connection type	Connector M8 x 1, 3-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Degree of protection	IP67
Mass	20 g
Tightening torque, fastening screws	max. 2 Nm

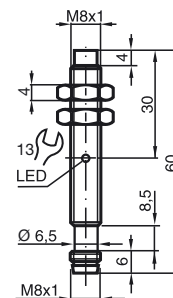
Compliance with standards and directives

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

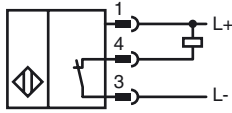
Approvals and certificates

EAC conformity	TR CU 020/2011
UL approval	cULus Listed, General Purpose, Class 2 Power Source
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

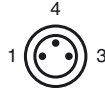
Dimensions



Electrical Connection



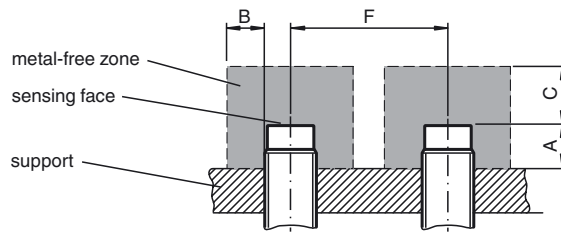
Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
3	BU	(blue)
4	BK	(black)

Installation Conditions



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