



### Model Number

NBN25-30GM50-E1-V1-M1

### Features

- 25 mm non-flush
- Increased operating distance
- Extended temperature range  
-40 ... +85 °C
- With increased sealing, protection class  
IP68 / IP69K
- E1-Type approval

### Accessories

#### BF 30

Mounting flange, 30 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 closed (NC)
Output type	NPN
Rated operating distance	$s_n$ 25 mm
Installation	non-flush
Output polarity	DC
Assured operating distance	$s_a$ 0 ... 20.25 mm
Actuating element	mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 75 mm x 75 mm x 1 mm
Reduction factor $r_{Al}$	0.5
Reduction factor $r_{Cu}$	0.4
Reduction factor $r_{304}$	0.7
Reduction factor $r_{Brass}$	0.5
Output type	3-wire

### Nominal ratings

Installation conditions	
A	28 mm
B	40 mm
C	75 mm
F	120 mm
Operating voltage	$U_B$ 7 ... 30 V
Switching frequency	$f$ 0 ... 450 Hz
Hysteresis	H typ. 5%
Reverse polarity protection	reverse polarity protected
Short-circuit protection	pulsing
Voltage drop	$U_d$ $\leq$ 2 V
Operating current	$I_L$ 0 ... 200 mA
Off-state current	$I_r$ 0 ... 0.5 mA typ. 4 $\mu$ A at 25 °C
No-load supply current	$I_0$ $\leq$ 10 mA
Time delay before availability	$t_v$ $\leq$ 100 ms
Switching state indicator	Multihole-LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	1494 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

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

### Mechanical specifications

Connection type	Connector plug M12 x 1, 3-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Degree of protection	IP68 / IP69K
Mass	100 g

### General information

Scope of delivery	2 self locking nuts in scope of delivery
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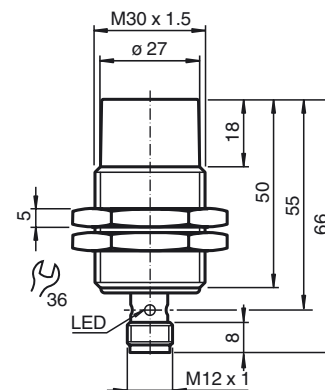
### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012 EN 12895: 2015

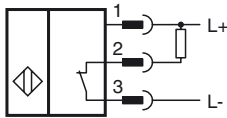
### Approvals and certificates

UL approval	cULus Listed, General Purpose, Class 2 Power Source
CCC approval	CCC approval / marking not required for products rated $\leq$ 36 V
E1 Type approval	10R-04

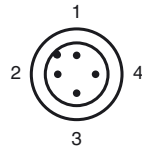
## Dimensions



**Electrical Connection**



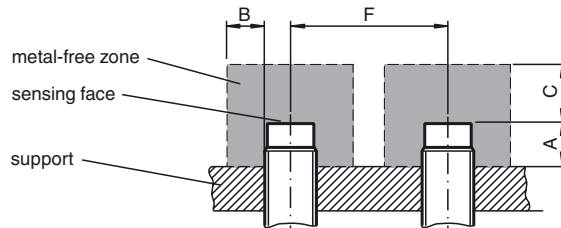
**Pinout**



Wire colors in accordance with EN 60947-5-2

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

**Installation Conditions**



**Installation Hint**

Mains-borne interference in accordance with ISO 7637-2:

Pulse	1	2a	2b	3a	3b	4
Severity level	III	III	III	III	III	III
Failure criterion	A	A	C	A	A	C

EN 61000-4-2:	CD: 8 kV /	AD: 15 kV
Severity level	IV	IV
EN 61000-4-3:	36 V/m (80...2500 MHz)	
Severity level	IV	
EN 61000-4-4:	2 kV	
Severity level	III	
EN 61000-4-6:	30 V (0.01...80 MHz)	
Severity level	III	
EN 55011:	Class A	

Release date: 2020-03-06 10:49 Date of issue: 2020-03-06 293454-0069\_eng.xml