



## Model Number

NBN40-L2-A2-V1

## Features

- Sensor head bidirectional and rotatable
- 40 mm non-flush
- 4-wire DC
- Quick mounting bracket
- 4-way LED indicator

## Accessories

### 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

### MHW 01

Modular mounting bracket

### MH 02-L

Mounting aid

## Technical Data

### General specifications

Switching element function		PNP	NO/NC
Rated operating distance	$s_n$	40 mm	
Installation		non-flush	
Output polarity		DC	
Assured operating distance	$s_a$	0 ... 32.4 mm	
Actual operating distance	$s_r$	36 ... 44 mm	
Reduction factor $r_{Al}$		0.31	
Reduction factor $r_{Cu}$		0.3	
Reduction factor $r_{304}$		0.74	
Reduction factor $r_{Brass}$		0.39	

### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 180 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
No-load supply current	$I_0$	$\leq 20$ mA
Time delay before availability	$t_v$	80 ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	1230 a
Mission Time (T <sub>M</sub> )	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 M12 x 1, 4-pin
Housing material	PA
Sensing face	PA
Degree of protection	IP69K

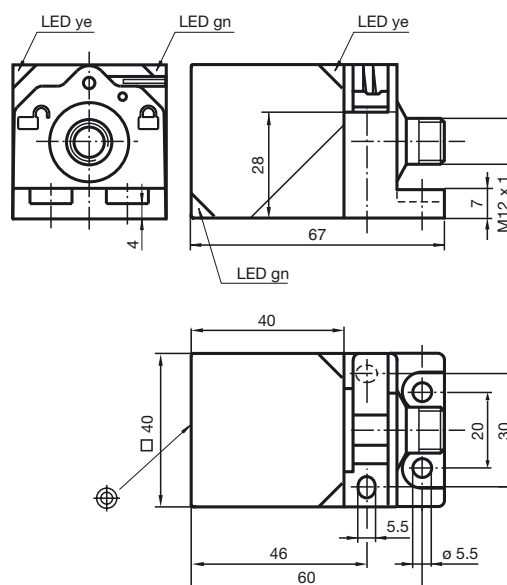
### Compliance with standards and directives

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

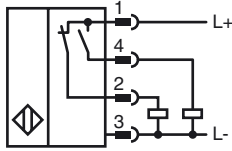
### Approvals and certificates

EAC conformity	TR CU 020/2011
Protection class	II
Rated insulation voltage	$U_i$ 253 V
Rated impulse withstand voltage	$U_{imp}$ 4000 V
UL approval	cULus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

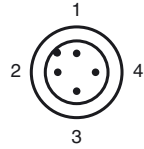
## Dimensions



Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

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