



### Model Number

NBN40-L2-A2-V1-M-Y247441

### Features

- Sensor head bidirectional and rotatable
- 40 mm non-flush
- E1-Type approval
- Extended temperature range -40 ... +85 °C
- 4 LEDs indicator for 360° visibility

### 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

#### V1-M20-80

Receptacles, M12/M20; plastic version

## 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	
Reduction factor $r_{Al}$		0.34	
Reduction factor $r_{Cu}$		0.3	
Reduction factor $r_{304}$		0.81	
Reduction factor $r_{S37}$		1	
Reduction factor $r_{Brass}$		0.4	

### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V
Switching frequency	$f$	0 ... 100 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
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	680 a
Mission Time ( $T_M$ )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

Ambient temperature	-40 ... 85 °C (-40 ... 185 °F)
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### Mechanical specifications

Connection type	Connector M12 x 1, 4-pin
Housing material	PA
Sensing face	PA
Degree of protection	IP69K
Mass	130 g

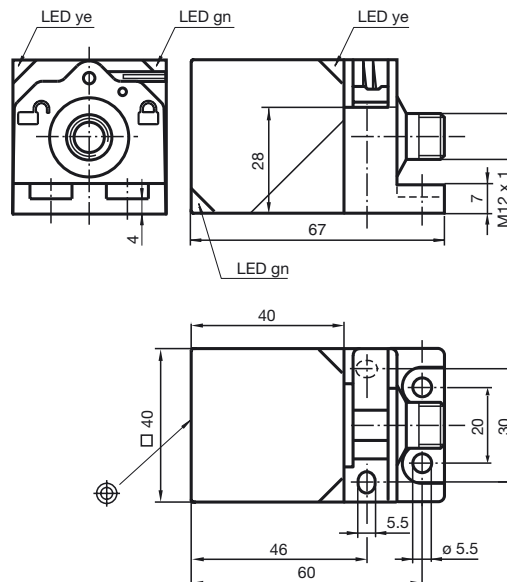
### Compliance with standards and directives

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

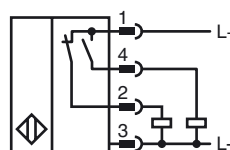
### Approvals and certificates

CCC approval	CCC approval / marking not required for products rated $\leq 36$ V
E1 Type approval	10R-04

## Dimensions



## Electrical Connection



**Installation Hint**

Emitted interference and interference immunity in accordance with motor vehicle directive 2006/28/EG (e1 Type approval)  
 Interference immunity in accordance with DIN ISO 11452-2: 30 V/m  
 Frequency band 20 MHz up to 2 GHz

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

	1	2a	2b	3 a	3b	4	5
Severity level	III	III	III	III	III	III	IV
Failure criterion	C	A	C	A	A	A	C

EN 61000-4-2:	CD: 8 kV / AD: 15 kV
Severity level	IV IV
EN 61000-4-3:	30 V/m (80...2500 MHz)
Severity level	IV
EN 61000-4-4:	2 kV
Severity level	III
EN 61000-4-6:	10 V (0.01...80 MHz)
Severity level	III
EN 55011:	Class A

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