

**Model Number**

NBN40-U1-E2-V1

**Features**

- Sensor head bidirectional and rotatable
- 40 mm non-flush
- 4 LEDs indicator for 360° visibility

**Accessories**

- V1-W**  
Female connector, M12, 4-pin, field attachable
- V1-W-2M-PUR**  
Female cordset, M12, 4-pin, PUR cable
- V1-G-2M-PUR**  
Female cordset, M12, 4-pin, PUR cable
- MHW 01**  
Modular mounting bracket
- MH 04-2681F**  
Mounting aid for VariKont, +U1+ and +U9\*
- V1-G**  
Female connector, M12, 4-pin, field attachable

**Technical Data**

**General specifications**

Switching element function		PNP	NO
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	
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 typ. 0.01 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>	1510 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

**Ambient conditions**

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

**Mechanical specifications**

Connection type	Connector M12 x 1, 4-pin
Housing material	PA/metal with epoxy powder coating
Sensing face	PA
Housing base	plastic
Degree of protection	IP68 / IP69K
Mass	225 g
Note	Tightening torque: 1.8 Nm

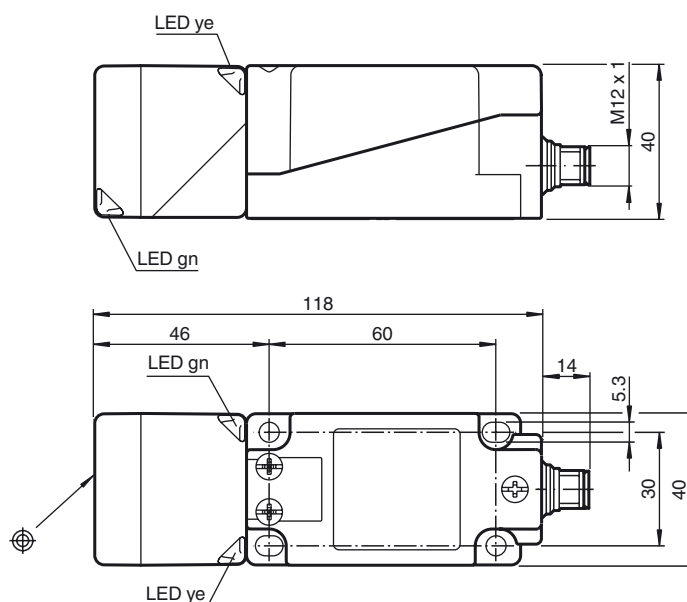
**Compliance with standards and directives**

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

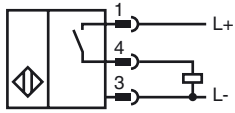
**Approvals and certificates**

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)