



**Model Number**

NBN40-U1-A2-T-V1

**Features**

- Sensor head bidirectional and rotatable
- 40 mm non-flush
- 4-wire DC
- 4 LEDs indicator for 360° visibility
- Temperature range -25 ... 100 °C (-13 ... 212 °F)

**Accessories**

- MH 04-2681F**  
Mounting aid for VariKont, +U1+ and +U9\*
- MHW 01**  
Modular mounting bracket
- 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**

Rated operating distance	$s_n$	40 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 32.4 mm
Reduction factor $r_{Al}$		0.31
Reduction factor $r_{Cu}$		0.3
Reduction factor $r_{304}$		0.74
Reduction factor $r_{Brass}$		0.39
Output type		4-wire

**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	$U_d$	≤ 2 V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0 ... 0.5 mA
No-load supply current	$I_0$	≤ 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 ... 100 °C (-13 ... 212 °F)
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**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 (housing)

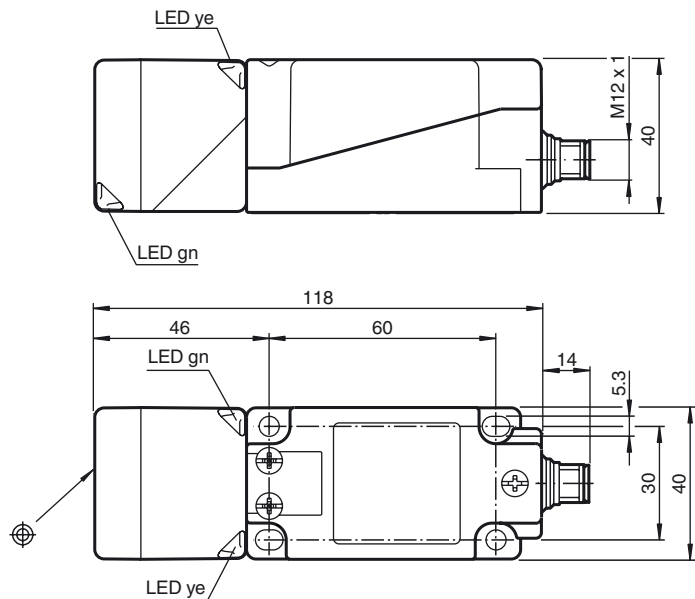
**Compliance with standards and directives**

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

**Approvals and certificates**

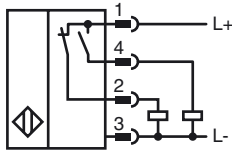
UL approval	cULus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤36 V

**Dimensions**



Release date: 2017-03-22 14:56 Date of issue: 2017-03-22 296379\_eng.xml

**Electrical Connection**



**Pinout**



Wire colors in accordance with EN 60947-5-2

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