



**Model Number**

**NBN40-U1-E2**

**Features**

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

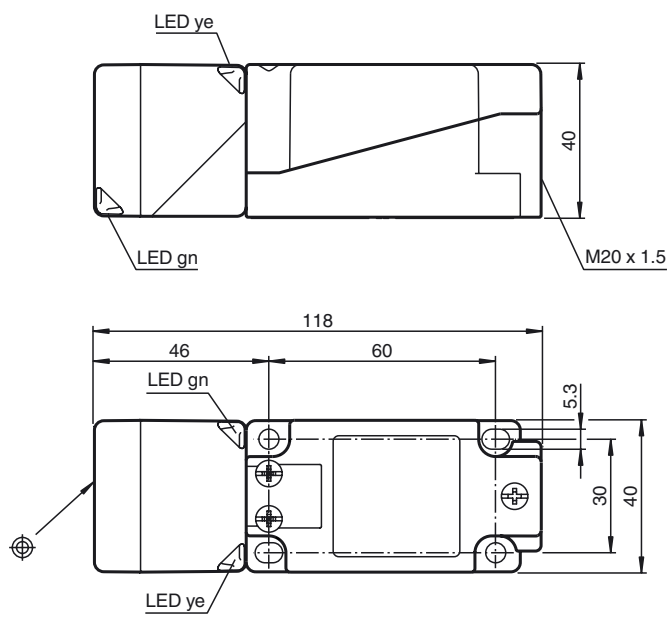
**Accessories**

- V1-M20-80**  
Receptacles, M12/M20; plastic version
- MH 04-2681F**  
Mounting aid for VariKont, +U1+ and +U9\*
- MHW 01**  
Modular mounting bracket

**Technical Data**

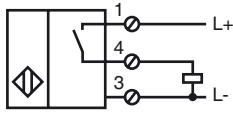
General specifications			
Switching element function		PNP	NO
Rated operating distance	$s_n$	40 mm	
Installation		non-flush	
Output polarity		DC	
Assured operating distance	$s_a$	0 ... 32.4 mm	
Actual operating distance	$s_r$	36 ... 44 mm	
Reduction factor $r_{Al}$		0.31	
Reduction factor $r_{Cu}$		0.3	
Reduction factor $r_{304}$		0.74	
Reduction factor $r_{Brass}$		0.39	
Nominal ratings			
Operating voltage	$U_B$	10 ... 30 V 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 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		screw terminals	
Information for connection		A maximum of two conductors with the same core cross-section may be mounted on one terminal connection! tightening torque 1.2 Nm + 10 %	
Core cross-section		up to 2.5 mm <sup>2</sup>	
Minimum core cross-section		without wire end ferrule 0.5 mm <sup>2</sup> , with connector sleeves 0.34 mm <sup>2</sup>	
Maximum core cross-section		without wire end ferrule 2.5 mm <sup>2</sup> , with connector sleeves 1.5 mm <sup>2</sup>	
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 IEC 60947-5-2:2007	
Approvals and certificates			
EAC conformity		TR CU 020/2011	
UL approval		cULus Listed, General Purpose	
CCC approval		CCC approval / marking not required for products rated $\leq 36$ V	

**Dimensions**



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Electrical Connection



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