



### Model Number

NBB20-U1-UU

### Features

- Sensor head bidirectional and rotatable
- Comfort series
- 20 mm flush

### Accessories

MHW 01

Modular mounting bracket

## Technical Data

### General specifications

Switching element function		AC/DC	NO/NC
Rated operating distance	$s_n$	20 mm	
Installation		flush	
Output polarity		AC/DC	
Assured operating distance	$s_a$	0 ... 16.2 mm	
Actual operating distance	$s_r$	18 ... 22 mm	
Reduction factor $r_{Al}$		0.4	
Reduction factor $r_{Cu}$		0.3	
Reduction factor $r_{304}$		0.77	
Reduction factor $r_{Fe}$		1	
Reduction factor $r_{Brass}$		0.43	

### Nominal ratings

Switching frequency	$f$	AC, 0 ... 30 Hz	DC, 0 ... 100 Hz
Hysteresis	$H$	1 ... 10 typ. 5 %	
Reverse polarity protection		reverse polarity tolerant	
Short-circuit protection		pulsing	
Voltage drop	$U_d$	$\leq 5$ V (typ. 2V) DC operation	
		$\leq 8$ V (typ. 3 V) AC operation	
Momentary current (20 ms, 0.1 Hz)		0 ... 3000 mA	
Operating current	$I_L$	5 ... 500 mA	
Off-state current	$I_r$	$\leq 1.5$ mA	
Time delay before availability	$t_v$	$\leq 300$ ms	
Operating voltage indicator		LED, green	
Switching state indicator		LED, yellow	
Error indicator		flashes when overcurrent	

### Electrical specifications

Rated operating voltage	$U_e$	24 ... 250 V DC / 24 ... 230 V AC
Operating voltage	$U_B$	20 ... 300 V DC / 20 ... 253 V AC

### Ambient conditions

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

### Mechanical specifications

Connection type	terminal compartment
Core cross-section	up to 2.5 mm <sup>2</sup>
Housing material	PA 6.6 / metal
Sensing face	PA 6.6
Housing base	plastic
Degree of protection	IP67

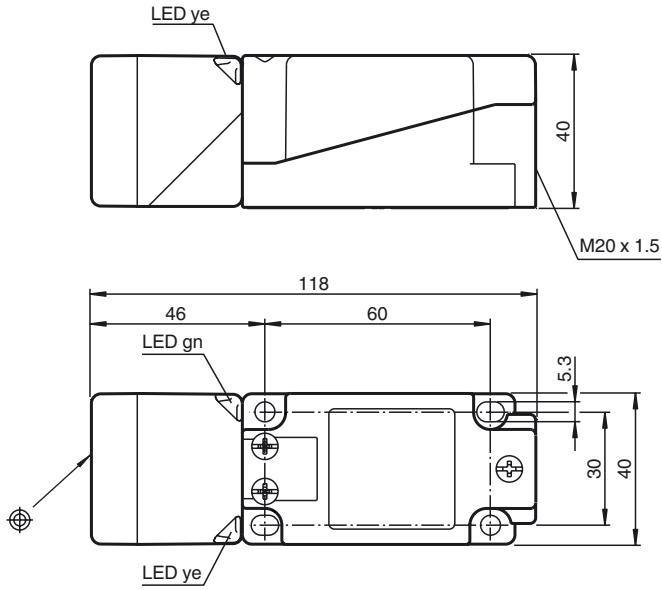
### Compliance with standards and directives

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

### Approvals and certificates

Protection class	II
Rated insulation voltage	$U_i$ 230 V
Rated impulse withstand voltage	$U_{imp}$ 2.5 kV
UL approval	cULus Listed, General Purpose "For use in NFPA 79 Applications only" For overcurrent protection, install a fuse with a rated current of max. 3 A and at least 300 V AC/DC
CCC approval	Ue 75VDC - 250VDC Ue 75VAC - 230VAC

Dimensions



Electrical Connection

