



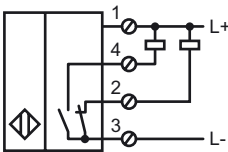
**Model Number**

NBB20-U4-A0-T

**Features**

- 20 mm embeddable
- 4-wire DC
- Temperature range -25 ... 100 °C (-13 ... 212 °F)
- 20 mm embeddable
- 4 LEDs indicator for 360° visibility

**Connection**



**Accessories**

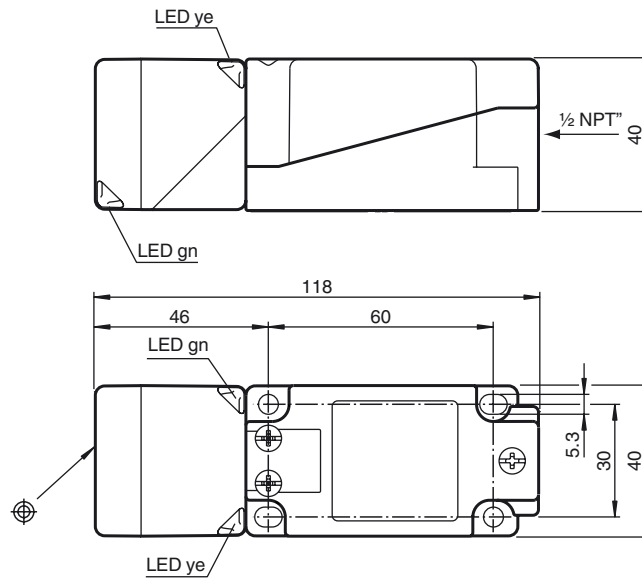
**MHW 01**

Modular mounting bracket

**MH 04-2681F**

Mounting aid for VariKont, +U1+ and +U9\*

**Dimensions**



**Technical Data**

**General specifications**

Switching element function		NPN	NO/NC
Rated operating distance	$s_n$	20 mm	
Installation		embeddable	
Output polarity		DC	
Assured operating distance	$s_a$	0 ... 16.2 mm	
Reduction factor $r_{AI}$		0.35	
Reduction factor $r_{CU}$		0.3	
Reduction factor $r_{303}$		0.75	

**Nominal ratings**

Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 300 Hz
Hysteresis	$H$	typ. 5 %
Reverse polarity protected		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	$I_o$	$\leq 20$ mA
Operating voltage display		LED, green
Indication of the switching state		LED, yellow

**Ambient conditions**

Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
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**Mechanical specifications**

Connection type	screw terminals
Core cross-section	$\leq 2.5$ mm <sup>2</sup>
Housing material	PA / LCP
Sensing face	PA
Housing base	metal
Protection degree	IP68 / IP69K
Mass	225 g
Note	Tightening torque: 1.8 Nm (housing) Tightening torque: 1.0 Nm (Screw terminal)

**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
CSA approval	cCSAus Listed, General Purpose
CCC approval	Products with a maximum operating voltage of $\leq 36$ V do not bear a CCC marking because they do not require approval.

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