



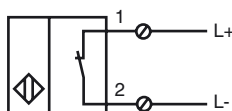
## Model Number

NCN30+U2+N0

## Features

- Comfort series
- 30 mm non-flush

## Connection



## Accessories

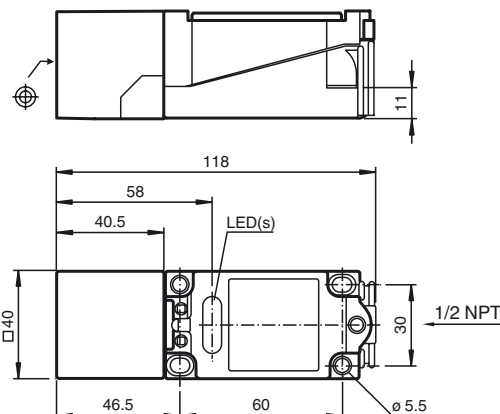
### MHW 01

Modular mounting bracket

### MH 04-2057B

Mounting aid for VariKont and +U1+

## Dimensions



## Technical Data

### General specifications

Switching element function		NAMUR, NC
Rated operating distance	$s_n$	30 mm
Installation		non-flush
Output polarity		NAMUR
Assured operating distance	$s_a$	0 ... 24.3 mm
Reduction factor $r_{AI}$		0.45
Reduction factor $r_{Cu}$		0.42
Reduction factor $r_{304}$		0.79

### Nominal ratings

Installation conditions	
A	10 mm
Nominal voltage	$U_o$ 8 V
Switching frequency	f 0 ... 150 Hz
Hysteresis	H 1 ... 15 typ. 5 %
Reverse polarity protection	reverse polarity protected
Short-circuit protection	yes
Current consumption	
Measuring plate not detected	$\geq 3$ mA
Measuring plate detected	$\leq 1$ mA
Switching state indication	LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	2335 a
Mission Time ( $T_M$ )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
Storage temperature	-40 ... 100 °C (-40 ... 212 °F)

### Mechanical specifications

Connection type	screw terminals
Core cross-section	$\leq 2.5$ mm <sup>2</sup>
Housing material	PBT
Sensing face	PBT
Protection degree	IP68

### General information

Use in the hazardous area	see instruction manuals
Category	2G

### Compliance with standards and directives

Standard conformity	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Electromagnetic compatibility	
Standards	NE 21:2007 EN 60947-5-2:2007 IEC 60947-5-2:2007

### Approvals and certificates

FM approval	
Control drawing	116-0165F
UL approval	
CSAus approval	cULus Listed, General Purpose 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.	

**ATEX 2G**

Instruction

**Device category 2G**

Directive conformity

Standard conformity

CE marking

Ex-identification

EC-Type Examination Certificate

Appropriate type

Effective internal capacitance  $C_i$ Effective internal inductance  $L_i$ 

General

Highest permissible ambient temperature

Installation, Commissioning

Maintenance

**Specific conditions**

Protection from mechanical danger

**Manual electrical apparatus for hazardous areas**


for use in hazardous areas with gas, vapour and mist

94/9/EG

EN 60079-0:2009, EN 60079-11:2007

Ignition protection "Intrinsic safety"

Use is restricted to the following stated conditions

 0102 II 2G Ex ia IIC T6 Gb

PTB 00 ATEX 2032 X

NCN30+U...+N0...

≤ 110 nF ; a cable length of 10 m is considered.

≤ 160 μH ; a cable length of 10 m is considered.

The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The EC-Type Examination Certificate has to be observed. The special conditions must be adhered to!

The temperature ranges, according to temperature class, are given in the EC-Type Examination Certificate.

Laws and/or regulations and standards governing the use or intended usage goal must be observed. The intrinsic safety is only assured in connection with an appropriate related apparatus and according to the proof of intrinsic safety.

No changes can be made to apparatus, which are operated in hazardous areas. Repairs to these apparatus are not possible.

When used in the temperature range below -20 °C the sensor should be protected from knocks by the provision of an additional housing.