



Model Number

NCN30+U4+N0

Features

- Comfort series

Accessories

MHW 01

Modular mounting bracket

MH 04-2057B

Mounting aid for VariKont and +U1+

Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	30 mm
Installation		non-flush
Assured operating distance	s_a	0 ... 24.3 mm
Actual operating distance	s_r	27 ... 33 mm typ.
Reduction factor r_{AI}		0.45
Reduction factor r_{CU}		0.42
Reduction factor r_{304}		0.79
Output type		2-wire

Nominal ratings

Installation conditions		
A		10 mm
Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
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		≥ 3 mA
Measuring plate detected		≤ 1 mA
Switching state indicator		LED, yellow

Ambient conditions

Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Storage temperature		-40 ... 100 °C (-40 ... 212 °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 % up to 2.5 mm ²
Core cross-section		up to 2.5 mm ²
Minimum core cross-section		without wire end ferrule 0.5 mm ² , with connector sleeves 0.34 mm ²
Maximum core cross-section		without wire end ferrule 2.5 mm ² , with connector sleeves 1.5 mm ²
Housing material		PBT/metal
Sensing face		PBT
Degree of protection		IP68
Note		Tightening torque: 1.8 Nm (housing)

General information

Use in the hazardous area		see instruction manuals
Category		1G; 2G; 1D

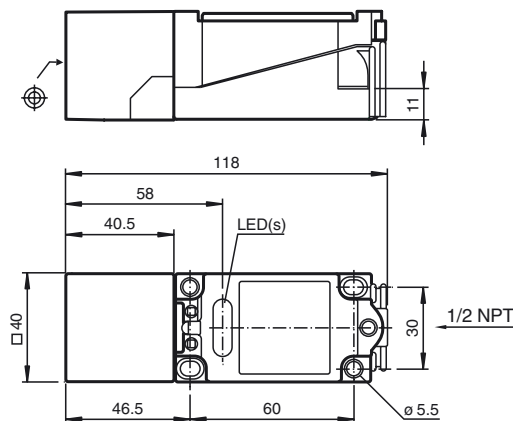
Compliance with standards and directives

Standard conformity		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
Electromagnetic compatibility		
Standards		NE 21:2007 EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012

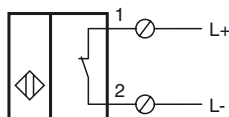
Approvals and certificates

FM approval		
Control drawing		116-0165
UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0451
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤ 36 V

Dimensions



Electrical Connection



Equipment protection level Ga

CE marking	CE 0102	
ATEX marking	II 1G Ex ia IIC T6...T1 Ga The Ex-related marking can also be printed on the enclosed label.	
Standards	EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions	
Appropriate type	NCN30+U...+N0...	
Effective internal capacitance	C_i	$\leq 110 \text{ nF}$; a cable length of 10 m is considered.
Effective internal inductance	L_i	$\leq 160 \mu\text{H}$; a cable length of 10 m is considered.
Ambient temperature	Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the temperature class, and the effective internal reactance values can be found on the EC-type examination certificate. Note: Use the temperature table for category 1 !!! The 20 % reduction in accordance with EN 1127-1 has already been applied to the temperature table for category 1.	

Equipment protection level Gb

CE marking	CE 0102	
ATEX marking	II 1G Ex ia IIC T6...T1 Ga The Ex-related marking can also be printed on the enclosed label.	
Standards	EN 60079-0:2012+A11:2013, EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions	
Appropriate type	NCN30+U...+N0...	
Effective internal capacitance	C_i	$\leq 110 \text{ nF}$; a cable length of 10 m is considered.
Effective internal inductance	L_i	$\leq 160 \mu\text{H}$; a cable length of 10 m is considered.
Maximum permissible ambient temperature T_{amb}	Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the temperature class, and the effective internal reactance values can be found on the EC-type examination certificate.	

Equipment protection level Da

CE marking	CE 0102	
ATEX marking	II 1D Ex ia IIIC T135°C Da The Ex-related marking can also be printed on the enclosed label.	
Standards	EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions	
Appropriate type	NCN30+U...+N0...	
Effective internal capacitance	C_i	$\leq 110 \text{ nF}$; a cable length of 10 m is considered.
Effective internal inductance	L_i	$\leq 160 \mu\text{H}$; a cable length of 10 m is considered.