









Model Number

NCN4-12GK35-N0

Features

- 4 mm non-flush
- Usable up to SIL 2 acc. to IEC 61508

Technical Data
General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s _n	4 mm
Installation		non-flush
Assured operating distance	sa	0 3.24 mm
Actual operating distance	S.	3.6 4.4 mm tvn

Reduction factor r_{Al} 0.5 0.3 Reduction factor r_{Cu} Reduction factor r₃₀₄ 0.7 Output type 2-wire

Nominal ratings Nominal voltage 8.2 V (R_i approx. 1 $k\Omega$) Switching frequency 0 ... 800 Hz 1 ... 10 typ. 5 % Hysteresis

Reverse polarity protection reverse polarity protected Short-circuit protection Current consumption \geq 3 mA Measuring plate not detected

Measuring plate detected ≤ 1 mA Switching state indicator all direction LED, yellow

Functional safety related parameters MTTF_d Mission Time (T_M) 2520 a 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 cable PVC, 2 m 0.34 mm² Core cross-section

Housing material PBT Sensing face PBT Degree of protection IP67 Cable

Bending radius > 12 x cable diameter

General information

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

Category

Compliance with standards and directives

Standard conformity

EN 60947-5-6:2000 NAMUR IEC 60947-5-6:1999 NE 21:2007 Electromagnetic compatibility

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

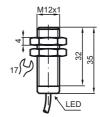
Approvals and certificates

FM approval Control drawing 116-0165

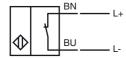
cULus Listed, General Purpose UL approval CSA approval

cCSAus Listed, General Purpose CCC approval / marking not required for products rated ≤36 V CCC approval

Dimensions



Electrical Connection



Equipment protection level Gb	
CE marking	C €0102
ATEX marking	(Example 2) If 2G Ex ia IIC T6T1 Gb 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	NCN4-12GKN0
Effective internal capacitance C _i	≤ 95 nF; a cable length of 10 m is considered.
Effective internal inductance L _i	\leq 100 μH ; 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	C € ₀₁₀₂
ATEX marking	
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	NCN4-12GKN0
Effective internal capacitance C _i	≤ 95 nF; a cable length of 10 m is considered.
Effective internal inductance L _i	≤ 100 µH ; 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 surface temperature, and the effective internal reactance values can be found on the EC-type-examination certificate. The maximum permissible ambient temperature of the data sheet must be noted, in addition, the lower of the two values must be maintained.