



Model Number

NJ15-30GK-N

Features

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

Accessories

BF 30

Mounting flange, 30 mm

Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	15 mm
Installation		non-flush
Assured operating distance	s_a	0 ... 12.15 mm
Reduction factor r_{AI}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.85
Output type		2-wire

Nominal ratings

Installation conditions		
A		18 mm
B		30 mm
C		45 mm
F		90 mm
Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Switching frequency	f	0 ... 100 Hz
Hysteresis	H	1 ... 5 typ. 3 %

Current consumption

Measuring plate not detected	\geq	3 mA
Measuring plate detected	\leq	1 mA

Functional safety related parameters

MTTF _d		4560 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %

Ambient conditions

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

Connection type		cable PVC , 2 m
Core cross-section		0.75 mm ²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP66 / IP68
Cable		
Bending radius		> 10 x cable diameter

General information

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

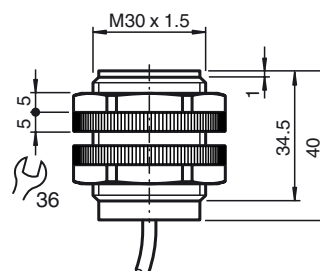
Compliance with standards and directives

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

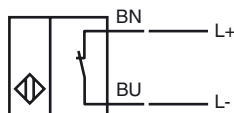
Approvals and certificates

EAC conformity		TR CU 012/2011
FM approval		
Control drawing		116-0165
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated \leq 36 V

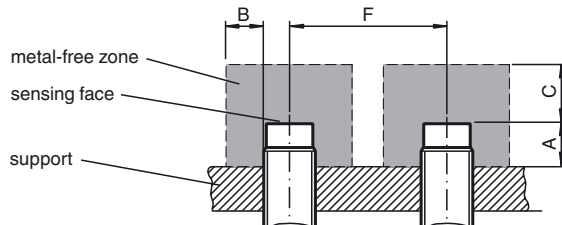
Dimensions



Electrical Connection



Installation Conditions



Equipment protection level Gb

CE marking	CE 0102
ATEX marking	II 2G Ex ia IIC T6...T1 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	NJ 15-30GK...-N...
Effective internal inductivity C_i	≤ 140 nF ; a cable length of 10 m is considered.
Effective internal inductance L_i	≤ 100 μ 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 IIC 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	NJ 15-30GK...-N...
Effective internal inductivity C_i	≤ 140 nF ; a cable length of 10 m is considered.
Effective internal inductance L_i	≤ 100 μ 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 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.

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