



**Model Number**

NJ15-30GKK-N

**Features**

- 15 mm non-flush
- Usable up to SIL2 acc. to IEC 61508

**Accessories**

BF 30  
Mounting flange, 30 mm

**Technical Data**

**General specifications**

Switching element function		NAMUR, NC
Rated operating distance	$s_n$	15 mm
Installation		non-flush
Output polarity		NAMUR
Assured operating distance	$s_a$	0 ... 12.15 mm
Reduction factor $r_{Al}$		0.4
Reduction factor $r_{Cu}$		0.3
Reduction factor $r_{304}$		0.85

**Nominal ratings**

Nominal voltage	$U_o$	8.2 V ( $R_i$ approx. 1 k $\Omega$ )
Switching frequency	f	0 ... 100 Hz
Current consumption		
Measuring plate not detected		$\geq 3$ mA
Measuring plate detected		$\leq 1$ mA

**Functional safety related parameters**

MTTF <sub>d</sub>	5070 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	terminal compartment
Core cross-section	up to 2.5 mm <sup>2</sup>
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67

**General information**

Use in the hazardous area	see instruction manuals
Category	2G

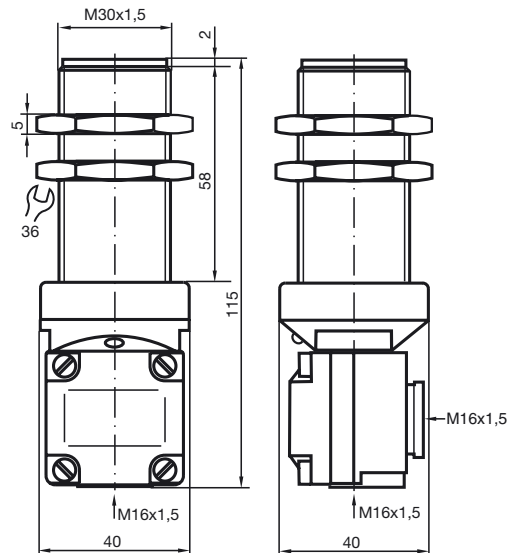
**Compliance with standards and directives**

Standard conformity	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

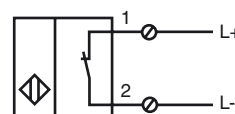
**Approvals and certificates**

UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

**Dimensions**



**Electrical Connection**



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**ATEX 2G**

Instruction

**Device category 2G**

EC-Type Examination Certificate

CE marking

ATEX marking

Directive conformity

Standards

Appropriate type

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

General

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

PTB 00 ATEX 2048 X

CE 0102

II 2G Ex ia IIC T6 Gb

94/9/EG

EN 60079-0:2009, EN 60079-11:2012

Ignition protection "Intrinsic safety"

Use is restricted to the following stated conditions

NJ 15-30GK...-N...

 $\leq 140$  nF ; a cable length of 10 m is considered. $\leq 100$   $\mu$ H ; 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!

Directive 94/9/EG and hence also EC-Type Examination Certificates apply in general only to the use of electrical apparatus under atmospheric conditions.

The use in ambient temperatures of  $> 60$  °C was tested with regard to hot surfaces by the mentioned certification authority.

If the equipment is not used under atmospheric conditions, a reduction of the permissible minimum ignition energies may have to be taken into consideration.

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.