



CE  
0102



### Model Number

FJ6-110-N

### Features

- 6 mm flush

## Technical Data

### General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	$s_n$	6 mm
Installation		flush
Assured operating distance	$s_a$	0 ... 4.86 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 $\Omega$ )
Operating voltage	$U_B$	5 ... 25 V
Switching frequency	$f$	0 ... 280 Hz
Hysteresis	$H$	typ. %
Current consumption		
Measuring plate not detected		$\geq 3$ mA
Measuring plate detected		$\leq 1$ mA

### Functional safety related parameters

MTTF <sub>d</sub>	11580 a
Mission Time ( $T_M$ )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

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

### Mechanical specifications

Connection type	cable PUR, 2 m
Core cross-section	0.34 mm <sup>2</sup>
Housing material	brass, zinc plated
Sensing face	POM
Degree of protection	IP67
Cable	
Bending radius	> 10 x cable diameter

### General information

Use in the hazardous area	see instruction manuals
Category	2G

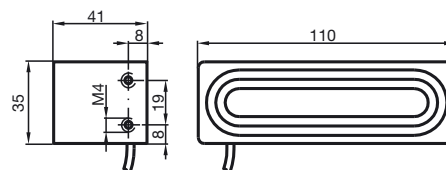
### Compliance with standards and directives

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

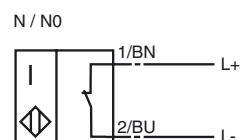
### Approvals and certificates

FM approval	
Control drawing	116-0165
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

## Dimensions



## Electrical Connection



**Equipment protection level Gb**

Instruction

**Device category 2G**

EC-Type Examination Certificate

CE marking

ATEX marking

Directive conformity

Standards

Appropriate type

Effective internal inductivity  $C_i$ Effective internal inductance  $L_i$ 

General

Maximum permissible ambient temperature  $T_{amb}$ 

Installation, commissioning

Maintenance

**Special conditions**

Electrostatic charge

**Manual electrical apparatus for hazardous areas**

for use in hazardous areas with gas, vapour and mist

PTB 00 ATEX 2032 X

CE 0102

II 2G Ex ia IIC T6...T1 Gb

94/9/EG

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

Ignition protection "Intrinsic safety"

Use is restricted to the following stated conditions

FJ6-110-N...

 $\leq 150$  nF ; a cable length of 10 m is considered. $\leq 110$   $\mu$ 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 EU-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. Install the device in such a way that the resin surface is not exposed to mechanical hazards.

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

Electrostatic charges must be avoided on the mechanical housing components. Dangerous electrostatic charges on the mechanical housing components can be avoided by incorporating these in the equipotential bonding.