

MONITORED FIRE ALARM DEVICE CONTROL UNIT BN-307

Interactive fire detection systems Product Datasheet

Features

- Interactive
- 1 Fire Alarm Device (FAD) output
- FAD circuit end-of-line monitoring
- Short-circuit isolator of detection loop in each unit
- Sound patterns are configurable via fire panel
- Sound pattern synchronization
- Automatic addressing
- Proven technology
- Wall mounted
- External power supply monitoring
- 1 A 30 VDC switching capability
- Designed to meet the requirement of the major maritime classification societies
- Approved according to EN 54-17 and EN 54-18

Description / Application

The Monitored Fire Alarm Device Control Unit BN-307 has been designed for use with Autronica's fire detection systems, AutoSafe (version 4.3.1 or newer) and Autroprime (2.1.3 or newer).

IMPORTANT:

Due to an important safety update in Autroprime version 2.1.3 the unit must not be used with Autroprime version older than 2.1.3.

Note:

External units require separate power sources (can not be powered by the AutoSafe detector loop). There is no current limiting/protection in the unit; this must be supported by the power source.

The 24 V power input (terminal 5 and 6) is monitored and a fault message is given at voltages < 20 V.

In this situation the FAD output (terminal 7 and 8) will not be activated.



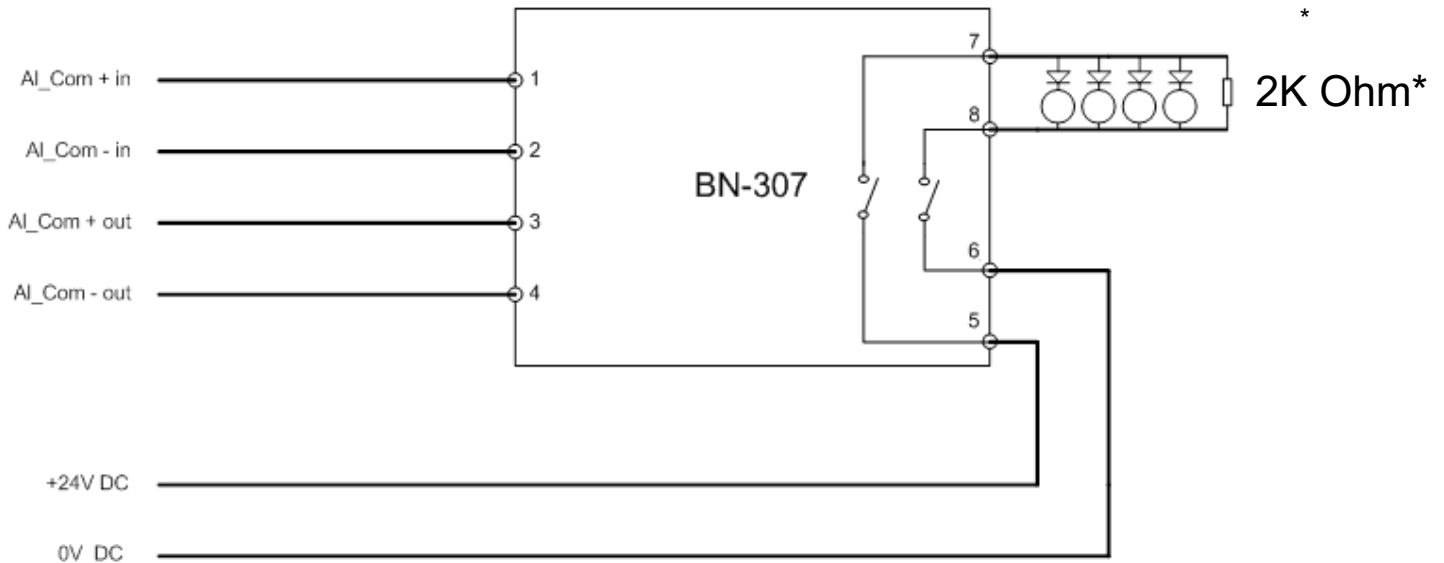
Descriptions of function

Function: Single monitored relay output

Applications:

The output unit contains a potential-free contact with end-of-line monitoring. It is used for driving Fire Alarm Devices (FAD) with ringing patterns which can be configured from the panel

Overview – Typical installation




* End-of-line resistance 2kohm,
FAD circuit end-of-line monitoring

Product Name	Part number	Description
BN-307	116-BN-307	Monitored fire alarm device control unit BN-307
	116-6571-0111.6020	Membrane gland TSS M20, grey (included)
	116-6571-011.1920	Cable gland M20-1.5 (optional for IP67)

Technical specifications	
Dimensions (mm)	112 x 110 x 52
Weight (g)	192
Housing material	Polyamide 6.6.
Colour	Light grey
Mounting	Wall mount, 100mm bolt space
Power supply	Connects to AI_Com loop only
Peak current consumption (during communication)	359 μ A
Average current consumption	< 60 μ A
Temperature range	-25 to +70 °C
Humidity	10 % - 95 % RH (non-condensing)
Degree of protection Membr. gland:	IP54 (Standard)

Technical specifications	
Cable gland (PG-13,5):	IP67 (Optional)
Communication loop	Autronica Loop Communication protocol (AL_Com)
Cable terminals	Max 2.5 mm ² single core wires
Cable requirements AL_Com	Refer to specification for AutoSafe or Autroprime
Output relay rating	1 A 30 VDC
Output relay type	Dry contact, Latching type; keep state on loss of power. EOL monitoring
Threshold	Short-circuit: 0-235 Ω Normal: 1200-4800 Ω Open circuit: 5400-∞ Ω
External power supply	20-30 VDC Fault message at voltage < 20 VDC
LED, Activate	3ms flash at 0,5 Hz Output: 10 mA current source 16-24 V Maximum length of connected wire: 3 m
Approvals	See website

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Autronica Fire and Security AS, NO-7483 Trondheim 11 0470-CPD-0031
EN 54-17:2005 Short circuit isolators EN 54-18:2005 Input/output devices

Connectors

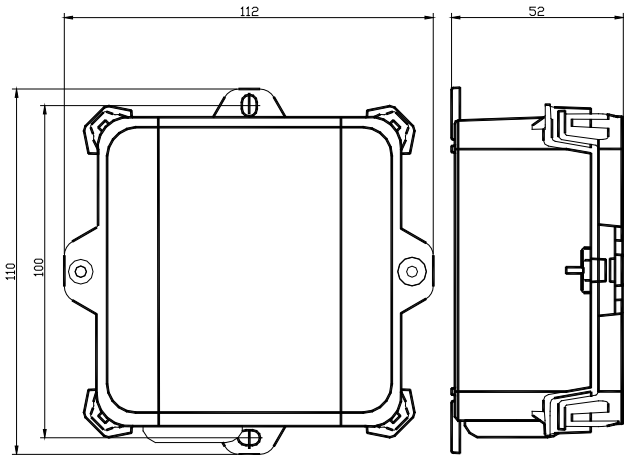
All connections are made to the screw terminals numbered 1-6.

Terminals	Function
1	AL_Com In (+)
2	AL_Com In (-)
3	AL_Com Out (+)
4	AL_Com Out (-)
5	24V power input (+)
6	0V power input (-)
7	FAD output (+)
8	FAD output (-)

LED connectors

J2.1	LED1 + (LED Activate)
J2.2	LED1 - (LED Activate)
J2.3	LED2 + (LED Fault)
J2.4	LED2 - (LED Fault)

Dimensions



Connectors on circuit board

