Conventional loop interface - BNB-330

AutroSafe interactive fire detection system
Product datasheet

Features

- Interfaces up to 32 conventional detectors of the 15V or 24V type to the AutroSafe interactive fire detection system
- Easily plugged onto a standard mounting rail
- Designed to meet EN 54 requirements and conforms to CE standards
- Galvanic isolation between the AutroSafe detection loop and the 24V conventional sub loop
- Alarm and fault indicators
- With SelfVerify function for reduced maintenance/testing and increased reliability

Description

BNB-330 is a modular interface designed to monitor conventional fire detectors of the current increase type and to convey their status to the AutroSafe fire alarm control panel. The conventional detectors are connected to a two-wire sub loop. The sub loop is monitored for broken line by an end of line unit BNY-330. As default a short circuit of the sub loop will give a fault warning, but the unit may be configured to give an alarm instead.

Conventional loop

The alarm current level is above 25mA, and the short circuit level is below 35ohm. The maximum working current drawn is 10mA. Broken line monitoring is performed by turning the power off for 40 ms on the sub loops. The BNY-330 will respond to this by drawing a current from the sub loop. Any devices connected to the sub loop must be capable of filtering out the 40ms voltage drop. Standard voltage on the sub loop is 15 VDC. Shorting terminal 7 to terminal 6 (0V) will change the sub loop voltage to 24 VDC.

To prevent a disablement of any manual call points, they have to be connected to a separate conventional loop interface.

The unit has LED indicators showing power present, fault or alarm. On alarm condition the open collector T-output activated.

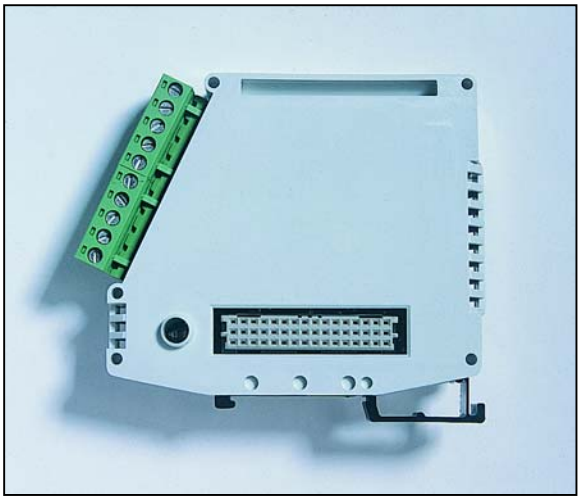
A low voltage fault is entered if the output is less than 12,5V when the 15V option is selected. Also, a low voltage fault is indicated if the output is less than 18V when the 24V option is selected.

SelfVerify: the ability to initiate alarm signal is regularly checked.

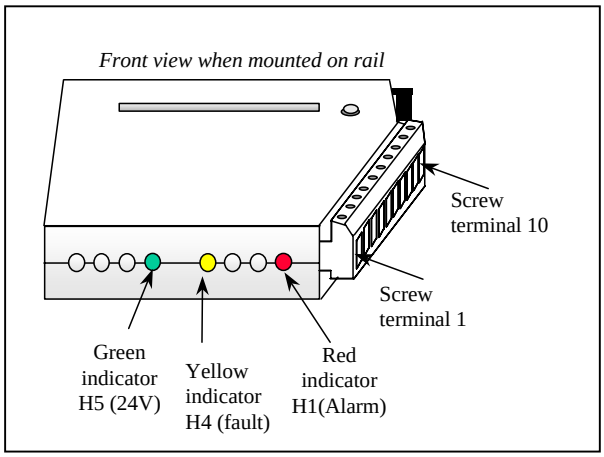
Connections

The unit must have a separate 24V supply. This 24V may come from the connection points 5 and 6 or by stacking it together with other AutroSafe internal modules that have power through their 32p parallel connector. Do not use both options at the same time.

NOTE: To ensure correct addressing, when stacking the BNB-330 together with other internal modules, make sure that it is mounted at the top, above all other internal modules. (Refer to the table in the right column) A loss of 24V to the BNB-330 will cause power failure to the sub loop. It will also cause a break in the AutroSafe detector loop, therefore the following guidelines apply: If more than one unit is used remotely in a detector loop, they must be connected together on the main detector loop without any detectors between, or they must have a redundant 24V power supply. If a total of more than 32 detectors are connected to the conventional sub loops of these units, they must have a redundant 24V power supply in order to avoid that a single fault causes loss of more than one 32 detectors.



Connections/indicators



- Red indicator (H1) – The unit is in Alarm
- Yellow indicator (H4) – The unit is in Fault
- Green indicator (H5) – The presence of 24 VDC

The module has the following connections:

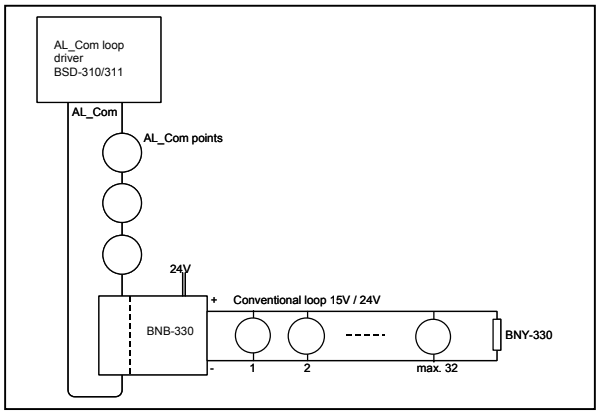
Screw terminal no.	Signal
1	+ AL-Com in
2	- Al_Com in
3	+ AL-Com out
4	- Al_Com out
5	+ 24V Input
6	0V
7	Conventional loop 15V/24V select
8	T-output / Open collector
9	+ conventional loop
10	- conventional loop

Conventional loop interface - BNB-330

Technical specifications	
Dimensions BNB-330	95x89x32 mm
Weight BNB-330	81 g
Dimensions BN-330	175x125x125 mm
Weight BN-330	180 g
Material	Polycarbonate
Colour	Light grey (RAL 7035) transparent lid
Current consumption (Idle), loop	0,3mA
Supply voltage	21V - 28V
Current consumption idle/alarm:	20mA / 80mA
Conventional loop voltage	15V or 24V
Detector idle load conv. loop	max. 10mA
Conventional loop resistance	Max. 30 Ω
Alarm current conv. loop	min. 24mA
Load T-output	max. 75mA
Temperature	- 20° +70°C
Humidity (non condensing)	Max. 95% RH
Degree of protection	IP67
Maintenance	None
Service	Replace if faulty
Approvals	See website

Part number	Description
116-BNB-330	Conventional loop interface (module). End of line unit included.
116-BN-330	Conventional loop interface (box)
116-BNY-330	End of line unit (separate)

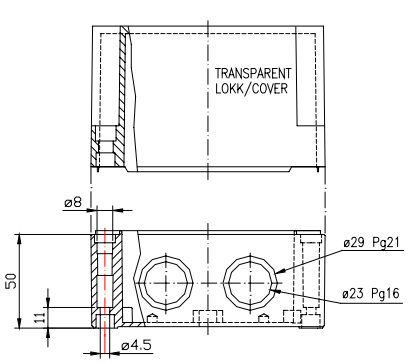
Installation overview

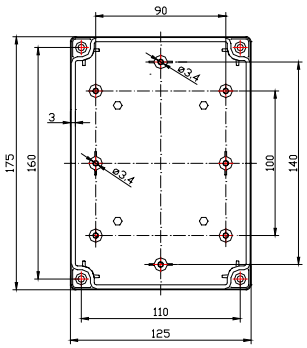


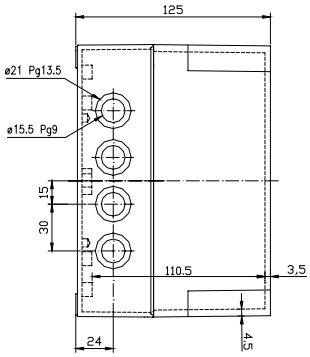
Version BN-330

The BN-330 consists of a BNB-330 module mounted on a DIN rail inside a PC box. Optionally more BNB-330 modules can be mounted in the same box.

Dimensions BN-330 (mm)







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