

Features

- General purpose 4-20 mA input unit for third party detectors.
- Analogue values supported.
- Faults, alarms and warnings supported.
- DIN-rail mounted
- Short-circuit isolator on PowerLoop.
- Conforms to CE standards
- Maritime / offshore environment type approval

Application / Description

The *PowerLoop 4-20mA Input Unit BN-342/2* is a general purpose PowerLoop interface designed for third party detectors connected to the AutroSafe Integrated Fire and Gas System.

The PowerLoop is a two-wire power and signalling bus connected in ring topology and is galvanically isolated from the rest of the system.

The unit communicates with AutroSafe using the PowerLoop protocol.

The unit has a 24VDC/400mA supply output (galvanically isolated from the PowerLoop) providing power to the connected detectors, plus a 4-20mA input galvanically isolated from the PowerLoop.

Versions

- BN-342/EX*: EEx me version including 9,5W DC/DC for external detector power supply
- BN-342/1*: 19" 3U rack version, bare PCB with 19" rack front panel, no DC output
- BN-342/2: DIN rail version, bare PCB in a open DIN rail box, no DC output

* See separate data sheet

4-20 mA Interface

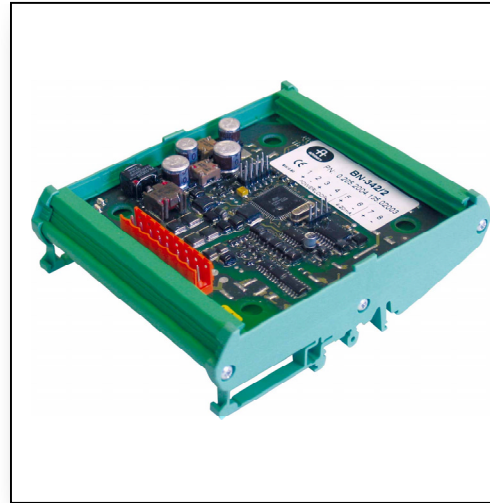
- Current level (mA) (0,9-25mA, 100µA steps)
- Analogue values supported

Options selected in AutroSafe Configuration Tool:

- Simrad GD-10P Interface
- Sieger Excel OPGD*
- Sieger Excel Duct*
- Dräger XP Tox
- General purpose 4-20 mA unit (configured in AutroSafe Configuration Tool)

* Sensor-power must be supplied from an external source.

Specification subject to change without notice.



Faults signalled

- 4-20mA input below lower current limit
- 4-20mA input above upper current limit
- Configurable in 0,9 - 25 mA range using state windows and error types available in AutroSafe
- Internal error (faulty unit)
- Voltage fault.
- Temperature out of range

Alarms and Warnings signalled

Alarms and warnings levels on 4-20mA:

- configurable in 0.9 – 25 mA range
- Alarm Levels:
 - Early Warning
 - Prealarm (low alarm)
 - Alarm (high alarm)



Technical Specifications

Weight	85g
Mounting	35mm DIN rail
Temperature	-20 - +70 °C
Relative Humidity	10 - 95 % non-condensing
Shock / Vibration	DNV Requirements for technical rooms anywhere onboard ships.
Degree of protection	IP20
Maintenance	None
Power Consumption	Pmax < 2.5W (power consumption limit)
Standby Current	I _{max} < 100 mA
Approvals	DNV Maritime, CE
4-20mA input circuit	0,9-25mA
4-20mA internal impedance	190 Ohm

Order Numbers

Order number	Description
BN-342/2	PowerLoop 4-20 mA Input, Moulded

Status LEDs

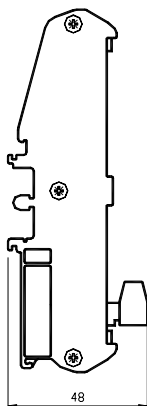
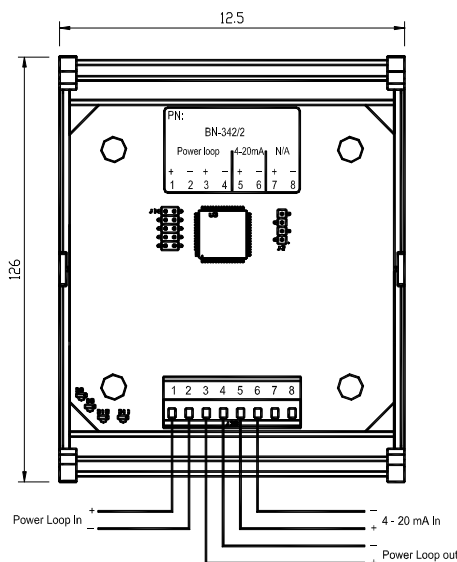
1. Red: Alarm.
2. Yellow: Fault.
3. Green: Operative
4. Red: Communication.
On if transmission on PowerLoop is detected.

Termination

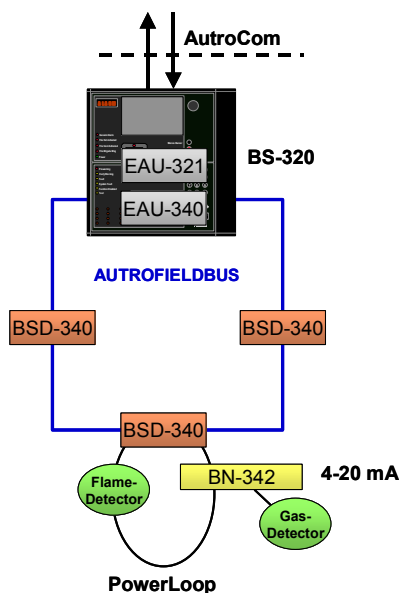
Terminal block capable of 2.5mm² cable.

Screw Terminal no.	Signal
PowerLoop	
1	PowerLoop + IN
2	PowerLoop – IN
3	PowerLoop + OUT
4	PowerLoop – OUT
Sensor Interface	
5	4-20mA input +
6	4-20mA input -
7	Do NOT connect.
8	Do NOT connect.

Connections / Dimensions



Overview



Note: Shielded cables must be used in offshore and maritime installations.