

## Declaration of conformity and instructions

### Features

- General purpose PowerLoop 4-20 mA input unit for third party detectors.
- Analogue values reported.
- Faults, alarms and warnings supported.
- Short-circuit isolator on PowerLoop
- EEX me version for hazardous area zone 1 and 2.
- Conforms to CE standards.
- Maritime / offshore environment type approval.

### Application / Description

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

The PowerLoop is a two-wire bus capable of delivering 30VDC/100W connected in ring topology and is galvanically isolated from the rest of the system.

The unit communicates with AutroSafe using the PowerLoop protocol from BSD-340 Loop Driver.

The unit has a 24VDC/9,5W output 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 24V DC/DC for external detector power supply
- BN-342/1\*: 19" 3U rack version, bare PCB with 19" rack front panel, no DC/DC
- BN-342/2\*: DIN rail version, bare PCB in a open DIN rail box, no DC/DC

\* See separate data sheet

### 4-20 mA Interface

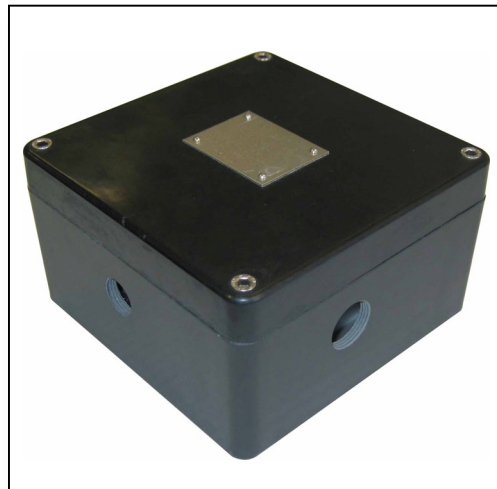
- Current level (mA) (0,9-25mA, 100µA steps)
- Analogue values supported

### 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 (Not connected or A/D not working)
- 4-20mA input above upper current limit (A/D overflow)
- Configurable in 0,9 - 25 mA range using state windows and error types available in AutroSafe
- Internal error
- Low voltage on PowerLoop

### 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)

### Earthing

Terminals available for dual shielding systems.

### Technical Specifications

<b>Materials</b>	Glasfibre reinforced polyester (GRP)
<b>Weight</b>	1650g
<b>Temperature</b>	-20 - +70 °C
<b>Relative Humidity</b>	< 100%
<b>Shock / Vibration</b>	DNV Requirements
<b>Degree of protection</b>	IP66
<b>Maintenance</b>	None
<b>Cable entry, PowerLoop</b>	2xM25
<b>Cable entry, 4-20mA input</b>	1xM20
<b>Power Consumption</b>	Pmax < 2.5W (power consumption limit)
<b>Power out</b>	24VDC/9,5W
<b>4-20mA input circuit</b>	0,9-25mA
<b>4-20mA internal impedance</b>	190 Ohm
<b>Notified body</b>	Nemko-Oslo-Norway ID No. 0470
<b>EC type examination certificate</b>	NEMKO 03ATEX222
<b>Directives and standards</b>	94/9/EC (ATEX) EB 50014 EN 50019 EN 50028 89/336/EEC (EMC) Emission: EN 50081-1: 1992 Immunity: EN 50130-4: 1995 <b>EN 61000-6-2: 1999</b> <b>EN54</b>
<b>Ex parameters</b>	 EEx em II t4 Terminals 1,2,3,4: Um=30V, Im=10000A Terminals 5,6: Um=12V Im=10000A <b>Terminals 7,8: Uo=24V, Po=9.5W</b>

### Order Numbers

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

### Optional

Order number	Description
Gland M25, EEXE	6571-071.2500
Gland M20, EEXE	6571-071.2000

Managing director Mr Frode Lund

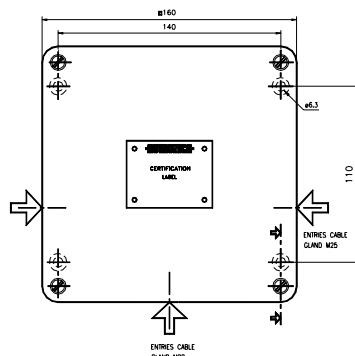
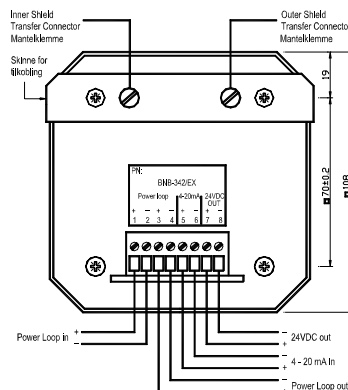
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Visit Autronica Fire and Security's Web site: [www.autronicafire.com](http://www.autronicafire.com)

### Connections / Dimensions



### Termination

Terminal block capable of 2.5mm<sup>2</sup> cable.

Screw Terminal no.	Signal
<b>PowerLoop</b>	
1	PowerLoop + IN
2	PowerLoop - IN
3	PowerLoop + OUT
4	PowerLoop - OUT
<b>Sensor Interface</b>	
5	4-20mA input +
6	4-20mA input -
<b>Power Output</b>	
7	24 VDC
8	0V

### Overview

