# Product information

FidesNet makes it possible to connect multiple SecuriSmoke aspirating smoke detectors in a network while also enabling decentralised access via one or more FidesControl RCU 700 units. The performance scope includes RS-485 networking plus the visualisation and operation of all connected ASDs on the FidesControl RCUs linked in the network. Various other functions can be implemented in addition to visualisation and operation. The FidesNet networking solution offers the possibility of connecting the special fire detectors on the field level to superordinate systems via the FidesPort NCU 900.
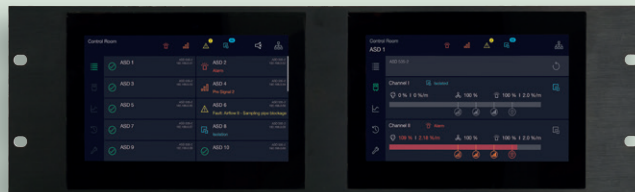
FidesNet

Fire Detection System Network

Networking of Securiton special fire detectors

Function

Using FidesNet, multiple ASDs are connected to each other via a serial RS-485 interface. The SIM 35 module is used as the serial interface module in the SecuriSmoke ASD. The FidesPort NCU 900 regulates communication in the network and integrates it into the superordinate system. In order to forward data from the field level, the FidesPort NCU 900 supports standard interfaces (such as Modbus TCP) for connecting to hierarchically superordinate systems such as a BMS building management system or Securiton's own visualisation system, Netsoft.

Networking

The ASDs on the RS-485 field bus can be connected with the FidesControl RCU 700 displays as required. All ASD-to-RCU combinations are possible here. Per RS-485 network, up to 100 ASDs and 50 RCUs can be connected to an NCU 900.

Applications

The FidesNet network solution is typically used wherever remote visualisation and operation are required. This may be due to difficult-to-access areas – such as high-security areas at airports, in laboratories, IT environments, etc – where aspirating smoke detectors are installed but where a technician cannot always gain access (or where access is difficult). Another possible application is central visualisation and operation in a safety management system in order to monitor the entire installation from a single location. In addition to remote visualisation and operation, the connection to other systems via standardised interfaces is another important area of application. For example, forwarding the relevant measurement data to a measurement system at a data centre allows an operating company to gain an overview of the current system status.

Operation

Operation takes place via the 7-inch touchscreen on the FidesControl unit. All data from the networked special fire detectors is available on this display. Each detector in the network can be accessed via the FidesControl unit in order to call up detailed information, such as for pending maintenance work. The detectors can be isolated by channel and also reset in the event of errors or alarms.

- The networked ASDs can be divided up between various FidesControl units as required (e.g. 1 ASD : 1 RCU; 1 ASD : 50 RCUs; 100 ASDs : 1 RCU; 100 ASDs : 50 RCUs, etc.). Up to 100 ASDs are possible on one RCU.
- The elegant 7-inch touchscreen display sets new standards when it comes to user experience.
- Various interfaces are available on the FidesPort, such as Modbus TCP. These can be used to integrate the data from the networked ASDs directly into other systems, such as building management systems.
- The FidesControl displays can be operated via Power over Ethernet (PoE).
- Individual customer-specific configuration of the display measuring value units in relative (%) or absolute (%/m), default screen, acoustics, etc.
- Configuration of display language (German, English, simplified Chinese, etc.)
- Protection against unauthorised operation (isolation protected via PIN entry)
- Interface to the Netsoft visualisation system.
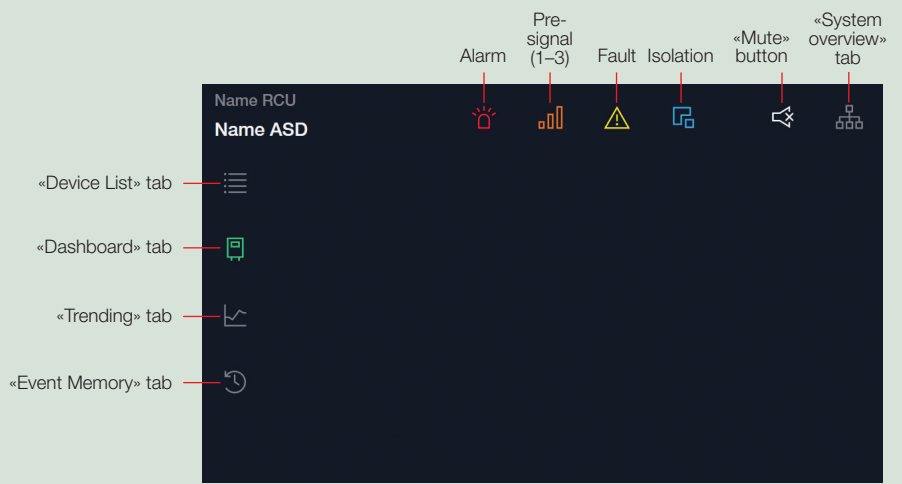
SECURITON

Overview of the visualisation interface

The graphic interface is divided up into the areas navigation, header and page content.

Navigation: for switching views.

Header: for the superordinate presentation of faults, pre-signals, alarms, isolations and name texts.

Page content: area of application for the various tabs.

Alarm | Pre-signal (1–3) | Fault | Isolation | «Mute» button | «System overview» tab

Name RCU
Name ASD

«Device List» tab
«Dashboard» tab
«Trending» tab
«Event Memory» tab

FidesControl RCU 700

Graphic interface of the FidesControl RCU 700 with ASD-relevant views – important information at the right time

The simply designed graphic interface allows for intuitive interaction between the user and all connected network participants. This leads to optimal user guidance and the best possible user experience.
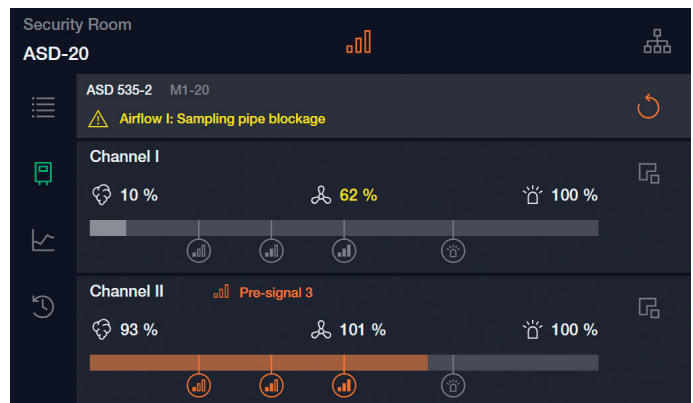
Device List

In the «Device List» view, all or a selection of the devices connected in a system with a FidesPort can be displayed depending on the customer's wishes. In this view, the status of the individual networked devices is highlighted in colour and is thus immediately apparent. If a device is selected, the user switches to the dashboard of the corresponding device.

Security Room

| ASD-1 | ASD 532 M1-1 | ASD-2 Alarm | ASD 532 169.254.1.3 |
ASD-3	ASD 532 M1-3	ASD-4 Pre-signal 3	ASD 532 169.254.100.20
ASD-5	ASD 532 M1-5	ASD-6 Fault	ASD 532 169.254.1.1
ASD-7	ASD 532 M1-7	ASD-8 Isolated	ASD 535-2 M1-20
ASD-9	ASD 532 M1-9	ASD-10	ASD 532 M1-10

Dashboard

The individual channels of the corresponding aspirating smoke detector are shown on the dashboard. In addition to the current measurement values (smoke and airflow in relative (%) or absolute (%/m), a level indicator also shows the current smoke value in relation to the pre-signal thresholds and alarm threshold. This leads to a quick and uncomplicated interpretation of the situation. In this view, the individual channels of an ASD can be isolated or the entire device can be reset.

Security Room
ASD-20

ASD 535-2 M1-20
⚠ Airflow I: Sampling pipe blockage

Channel I
🔊 10 %   62 %   100 %

Channel II   Pre-signal 3
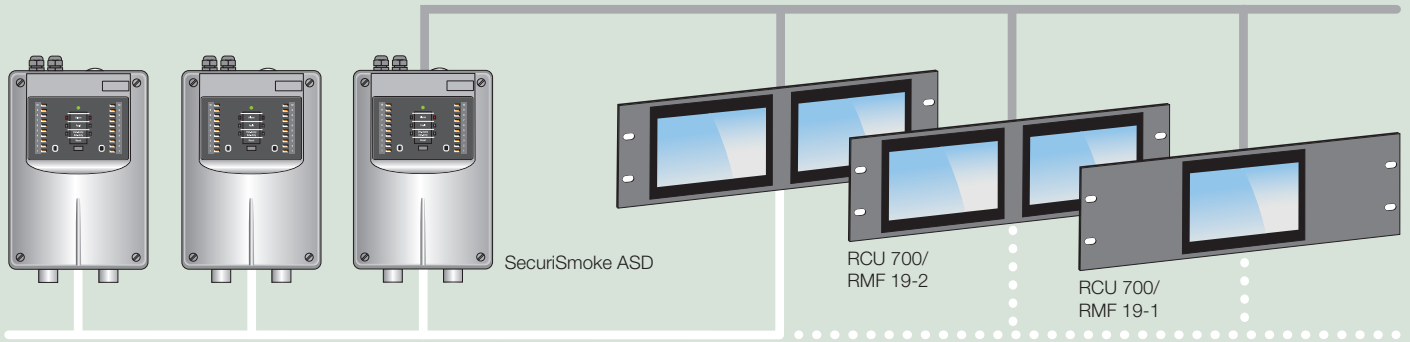🔊 93 %   101 %   100 %

Trending

This view shows the measurement values of the airflow and smoke value as a line diagram. The trend lines show both real-time values and past values. As an additional aid, the curves are also shown in relation to the configured pre-signal and alarm thresholds.
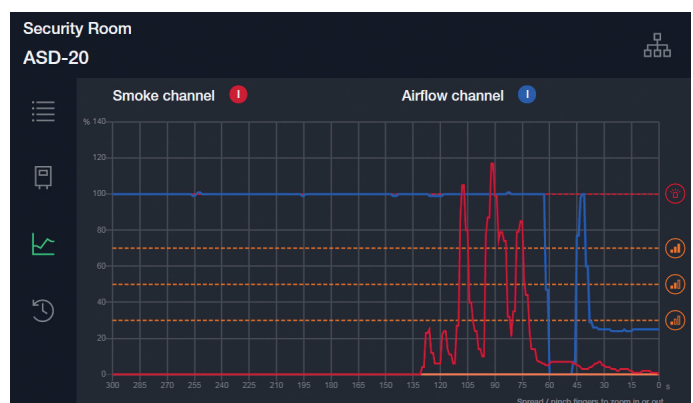
Other views

• Event memory, shows most recent events
• System view, information from the whole system

Security Room
ASD-20

Smoke channel ❗   Airflow channel ℹ

Spread / pinch fingers to zoom in or out

A SecuriSmoke ASD can be displayed on multiple RCU 700 units (up to 50).

SecuriSmoke ASD

RCU 700/
RMF 19-2

RCU 700/
RMF 19-1

Up to 100 SecuriSmoke ASDs can be shown on a RCU 700. The assignment can be freely selected according customer wishes and the project.

FidesPort NCU 900

FidesPort NCU 900 – the link between normative networking and comfort networking
The FidesPort connects the field level with its networked ASDs with the Ethernet side. In this scenario, the NCU 900 assumes the role of data gateway to the Ethernet network.

Mechanical design
The FidesPort consists of a 19-inch front panel with a height unit, onto which the NMB 90 main board is fastened on the rear. The 19-inch design allows for installation in a conventional 19-inch rack, in which one or more FidesControl units plus the power supply and switch can also be positioned.
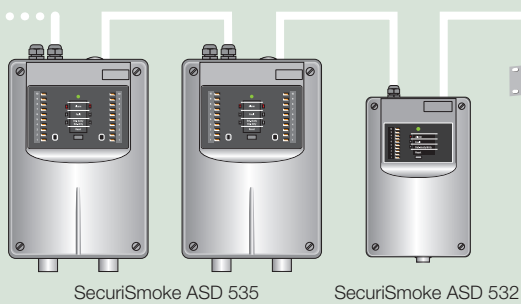
Data availability
The measurement data of the networked aspirating smoke detectors on the RS-485 field level are read out by the FidesPort and prepared for forwarding to comfort networking. Hierarchically superordinate systems (such as a management system) can obtain the data via Modbus from the FidesPort NCU 900.

FidesControl units can be connected to the Ethernet network to ensure local visualisation of the individually networked ASDs.
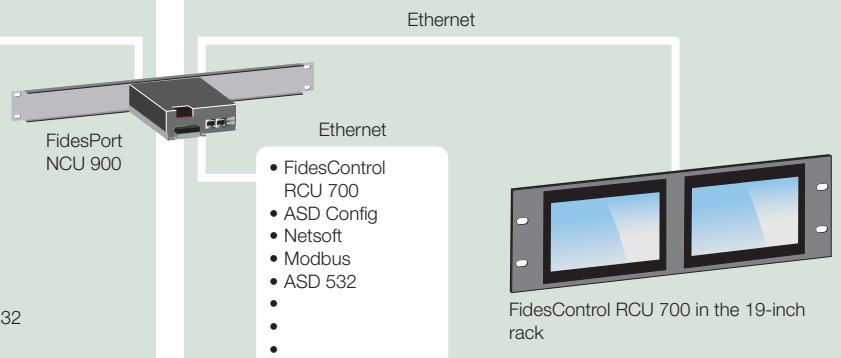
The **ASD Config** tool for specialists can obtain the data directly from the FidesPort. Difficult-to-access ASDs can then be maintained easily.

FidesNet

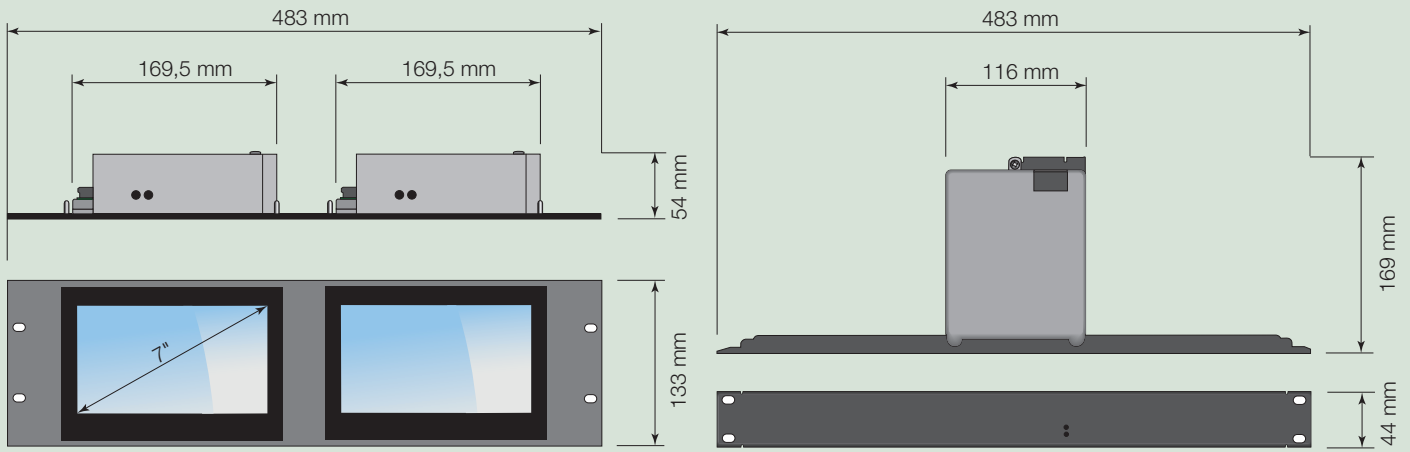**RS-485 connection**

Ethernet connection

Ethernet

SecuriSmoke ASD 535   SecuriSmoke ASD 532

FidesPort
NCU 900

Ethernet

- FidesControl
  RCU 700
- ASD Config
- Netsoft
- Modbus
- ASD 532
-
-
-

FidesControl RCU 700 in the 19-inch rack

483 mm

169,5 mm 169,5 mm

54 mm

7"

133 mm

483 mm

116 mm

169 mm

44 mm

Technical data	FidesControl RCU 700	FidesPort NCU 900
Supply voltage	14–30 VDC	14–30 VDC
Interfaces	RJ45 (Ethernet)	2 × RJ45 (Ethernet)
	USB	2 × USB
		1 × RS-485
Housing	19-inch frame	19-inch frame
Colour	Black anodised	Black coated
Packaging	Cardboard	Cardboard
Dimensions (W × H × D)	483 × 133 × 54 mm	483 × 44 × 169 mm
Operating temperature/humidity	0–50 °C; 95%	0–50 °C; 95%
Technical documentation	T 140 741	T 140 741

Order numbers

11-5000004-01-xx	RCU 700	Remote control unit
11-5000003-01-xx	NCU 900	Network communication unit
11-5000006-01-xx	RMF 19-1	RCU 700 mounting frame 19-1
11-5000006-02-xx	RMF 19-2	RCU 700 mounting frame 19-2

Supported devices

ASD 535	Aspirating smoke detector for 1 or 2 SSD 535 smoke sensors
ASD 532	Aspirating smoke detector for 1 SSD 532 smoke sensor
SIM 35	Serial interface module

Specifications subject to change without notice. Delivery subject to availability.

SECURITON