

Filter box FBS 25 (small)

Technical Documentation



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Validity



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This document is intended for use by trained personnel for the mounting, installation, commissioning and maintenance of this product.



NOTICE

Foreign language documents as listed in this document are always approved and changed at the same time as the German version. If there are deviations between the foreign language document and the German text, the German document is binding.



NOTICE

The product and all related documents are subject to an accompanying quality assurance process. We strive to incorporate all changes in a timely manner. However, there may be changes that have not yet been described. SECURITON GmbH reserves the right to implement these without advance notice. This document reflects the state at the time of printing. The latest version of the documentation can be obtained directly from the manufacturer.



NOTICE

The following document is applicable only to the filter box FBS 25 (small) with the following production version:

Production version
as of 020426

The validity of older production versions is guaranteed, with the exception of the new functions described in this edition. Additional information about the new functions can be found in the document history.

Document history

First issue **Date 08.02.1999**

Index "a" **Date 12.01.2012**

Main changes to the first issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
6	c	Article numbers	Correction
7	c	Technical data	New format

Index "b" **Date 25.01.2013**

Main changes to the previous issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
6	c	Article numbers	Correction
9	n	List of figures	Addition
All	c	Documentation page format adjusted	New document format

Index "c" **Date 01.04.2016**

Main changes to the previous issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
3	c	Text adjustment	Correction
6	c	Article numbers	Correction

Index "d" **Date 01.07.2019**

Main changes to the previous issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
All	c	Order, names of headings	New documentation template
5	c	Fig. 2 and fig. 3 updated	Additional labelling, dimensioning
6	c	Fig. 4 updated	Additional labelling, dimensioning
8	c	Article numbers	Correction

Index "e" **Date 06.08.2019**

Main changes to the previous issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
5	c	Fig. 2 updated	Correction of WCU 535 position

Index "f" **Date 01.05.2020**

Main changes to the previous issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
3	c	Construction	Update
4	c	Function	Update
5	c	Fig. 2 Standard installation for use in deep-freeze area with wiring connection unit WCU 535 PC	Changes to component labelling
5	c	Fig. 3 Installation without wiring connection unit WCU 535 PC	Changes to component labelling
6.1	c	Fig. 8 Mounting orientation of filter box FBS 25 (small)	Changes to component labelling
7	c	Maintenance / Service	Update
8	c	Article numbers	ASD 53x, MV 25
9	c	Technical data	Weight with packaging removed

Document history

Index "g" Date 01.11.2020

Main changes to the previous issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
Validity	n	Notice regarding validity of translations	Adaptation to GL product documentation
1.1	n	Notice regarding intended use	Adaptation to GL product documentation
8	c	Article numbers	Article number of filter mat for filter box FBS 25 (PU = 5)

Index "h" Date 30.03.2021

Main changes to the previous issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
Validity	n	Notice regarding version	Addition
5	c	Fig. 2 Standard installation for use in deep-freeze area with wiring connection unit WCU 535 PC	Changes to component labelling
5	c	Fig. 3 Installation without wiring connection unit WCU 535 PC	Changes to component labelling

Index "i" Date 01.05.2023

Main changes to the previous issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
13	c	Construction	Figure updated
6.1	c	Installation of the filter mat in filter box FBS 25	Description of filter mat insertion
6.2	n	Drilling template	Addition of drilling template

Index "j" Date 30.03.2026

Main changes to the previous issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
6	c	Completely reorganized and subchapters adjusted	Improved layout for better clarity

Content

1	General information	9
1.1	Intended use	9
1.2	Safety and Environment	9
1.2.1	Advice and warning symbols	9
1.2.2	Safety information	10
1.2.3	Regulation EC No. 1907/2006 (REACH)	11
1.2.4	Disposal	11
1.3	Product identification	11
1.4	Warranty	11
1.5	Product changes	11
2	Field of application	12
3	Construction	13
4	Function	14
5	Mounting guidelines	15
6	Mounting / Commissioning	17
6.1	Installation orientation of filter box FBS 25 (small)	17
6.2	Replacement of filter mat	18
6.3	Drilling template	20
7	Maintenance / Service	21
8	Article numbers	22
9	Technical data	23
10	List of figures	25

1 General information

1.1 Intended use



Intended use: fire protection

NOTICE

1.2 Safety and Environment

If the product is used by trained specialist personnel in accordance with this document and the safety symbols and all the instructions are observed, under normal circumstances and in the event of correct use, there will be no danger to persons, property or the environment. The product fulfils the requirements such that the health of persons and the environment are not endangered during operation. National and state-specific laws, regulations and guidelines must be observed and adhered to in all cases.

Observe these hazard warnings. They help to prevent accidents and avoid damage.

1.2.1 Advice and warning symbols

The following advice and warning symbols are used in the document to draw attention to dangers or special properties.



DANGER

The product may pose an immediate danger with a high degree of risk to persons if the instructions are not followed. If not avoided, death or serious injury may result.



WARNING

The product may pose a potentially imminent medium-risk danger to persons if the instructions are not followed. If not avoided, death or serious injury may result.



CAUTION

The product may pose a potentially imminent danger with a low degree of risk to persons if the instructions are not followed. If it is not avoided, a slight injury may result.



NOTICE

Failure to follow the instructions may result in malfunction of the product or damage to property or the environment.

1.2.2 Safety information



ELECTRIC SHOCK

The product is powered by electricity. Incorrect mounting, installation, commissioning and maintenance may result in death or serious injury due to electric shock. The safety information must be strictly observed.



READ THE INSTRUCTION MANUAL

To ensure the safe and proper use, it is essential that the instructions for use and other documents accompanying the product are read carefully before use and kept for future reference. In particular, the hazard warnings must be observed.



ELECTROSTATIC DISCHARGE

The product contains electronic components that are sensitive to electrostatic discharge (ESD). Contact with persons or objects can lead to an electrostatic discharge which can damage or destroy the product. ESD bands are used for the earthing of persons and for equipotential bonding as a preventive measure.



1.2.3 Regulation EC No. 1907/2006 (REACH)



REGULATION EC NO. 1907/2006 (REACH)

General information: Declaration on Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

If the articles contain substances on the candidate list in a concentration of >0.1% in accordance with Article 33 of Regulation (EC) No. 1907/2006 (REACH) and with regard to the safe handling associated with this, the following website will inform you: <https://www.securiton.de/>.

1.2.4 Disposal



ELECTRICAL / ELECTRONIC EQUIPMENT AND BATTERIES

Electrical and electronic equipment and batteries must not be disposed of with the household waste. As an end user, you are legally obliged to return the goods. After use, electrical and electronic equipment and batteries can be returned free of charge to the seller or to the designated collection points (e.g. municipal collection points or retailers).



RECYCLING

The product or components thereof, including the packaging, consist of recyclable material and may be disposed of for recycling in accordance with the information given in this document.

1.3 Product identification



NOTICE

The type plates, type designations and/or markings on devices and assembled printed circuit boards must not be removed, overwritten or otherwise made unrecognisable.

1.4 Warranty



NOTICE

The product may only be operated with the hardware, software and commissioning equipment specified and supplied by the manufacturer. Any unauthorized interference with the hardware and/or software as well as the use of non-system products is prohibited and may lead to malfunctions and/or damage to the product. This means that all warranty and liability claims against the manufacturer of the product are void. Non-observance of the instructions for use and improper maintenance and repair work will also void the warranty and product liability.

1.5 Product changes



NOTICE

Using the latest product software version at all times is generally recommended. No right to an update for existing products can be derived due to a hardware or software change of a product made by the manufacturer.

2 Field of application

The filter box FBS 25 (small) is used as an accessory part for aspirating smoke detectors in areas with **low temperature conditions** (below 0°C) and high dust levels to prevent false alarms and to substantially increase the lifespan of the smoke sensors.

The filter insert is designed for the separation of particles and impurities. Due to their particle size, smoke particles can pass through this filter unhindered. Reliable and fast fire detection is thus ensured.

3 Construction

The filter box FBS 25 (small) is part of the sampling pipe. The housing is made from polycarbonate, colour RAL 7035. The filter box can be opened via the four cover screws in order to replace the small filter mat during servicing.



Fig. 1 Filter box FBS 25 (small) open

4 Function

The air polluted with dust particles is also aspirated by the aspirating smoke detector. To prevent false alarms, the aspirated air must be purified of these particles. The filter box FBS 25 (small) can be used as an additional accessory component for this purpose.

It must be installed directly before the evaluation unit in the sampling pipe (see Mounting guidelines). The aspirated air is conducted across the filter mat to filter the dust particles. If the filter mat is contaminated, it should be exchanged during maintenance.

Benefits of the filter box FBS 25 (small):

- Prevention or substantial reduction of false alarms
- Lengthening of lifespan of smoke detectors
- Very low installation costs
- Subsequent installation possible at any time
- Low operating costs
- Applicable for all aspirating smoke detectors
- Quick, clean and inexpensive solution
- **Field of application deep freeze area**

5 Mounting guidelines

Dimensions in mm

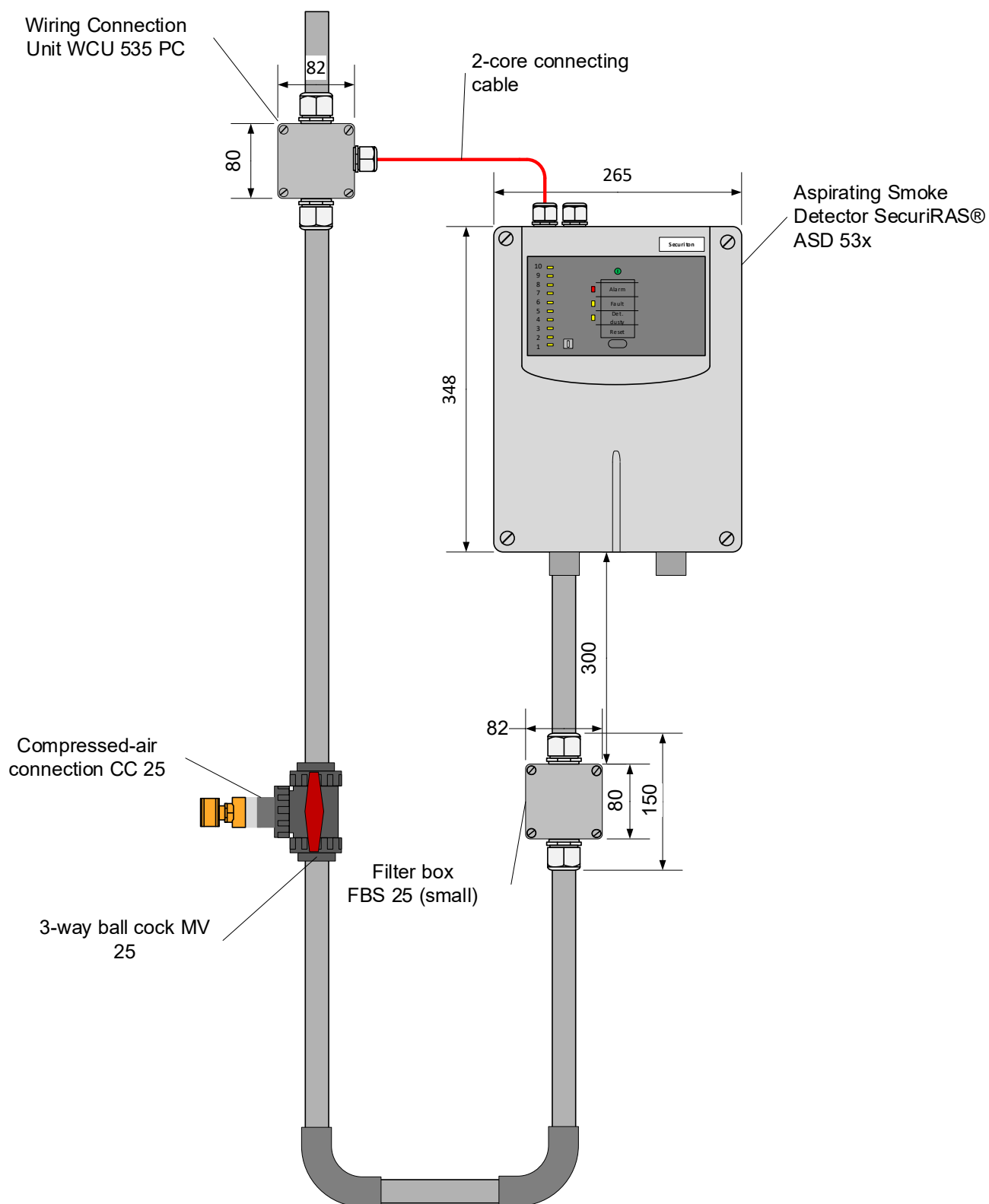


Fig. 2 Standard installation for use in deep-freeze area with wiring connection unit WCU 535 PC

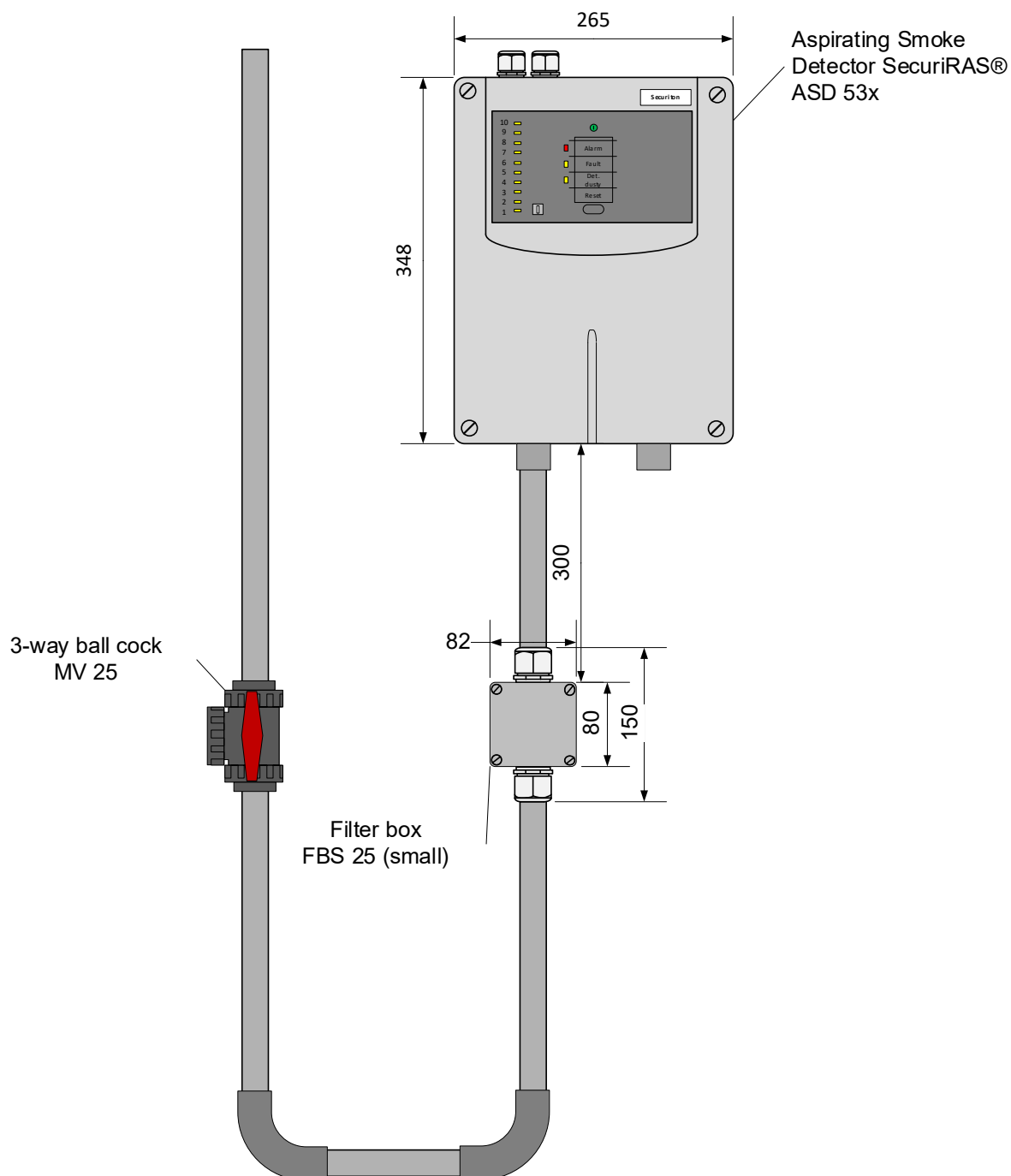


Fig. 3 Installation without wiring connection unit WCU 535 PC

6 Mounting / Commissioning

The filter box FBS 25 (small) must always be installed below the aspirating smoke detector to prevent false alarms due to falling dust particles. If the formation of ice (at temperatures down to -30°C) can be expected at the sampling holes, a wire connection unit WCU 535 must be installed before the filter box in accordance with the application guideline for deep-freeze warehouses (T131390). The assembly and arrangement must comply with the Mounting guidelines.

6.1 Installation orientation of filter box FBS 25 (small)

Dimensions in mm

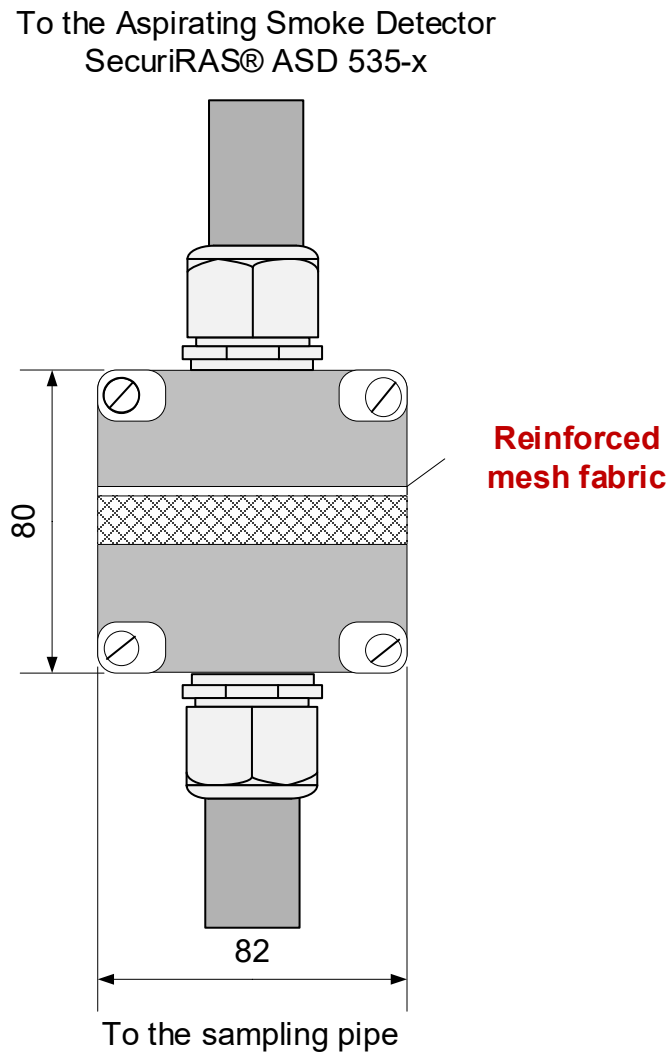


Fig. 4 Installation orientation of filter box FBS 25 (small)

6.2 Replacement of filter mat

The filter mat for filter box FBS 25 (small) must be inserted such that the reinforced mesh is facing the aspirating smoke detector SecuriRAS® ASD 53-x, meaning that the fleece is facing the sampling pipe.



Fig. 5 Installation direction filter mat

When installing the filter mat, the mat must be inserted correctly into the designated holder.



Fig. 6 Installation in the filter mat holder

The filter mat must be flush with the housing on the right and left as well as with the base of the housing.

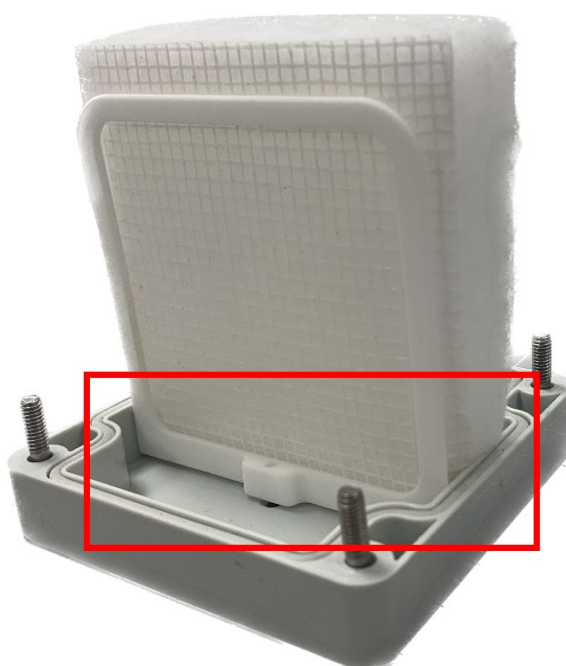


Fig. 7 Finish the filter mat flush

When fitting the cover, it must sit flush with the housing wall of the filter box.



Fig. 8 Install the lid

6.3 Drilling template

Dimensions in mm

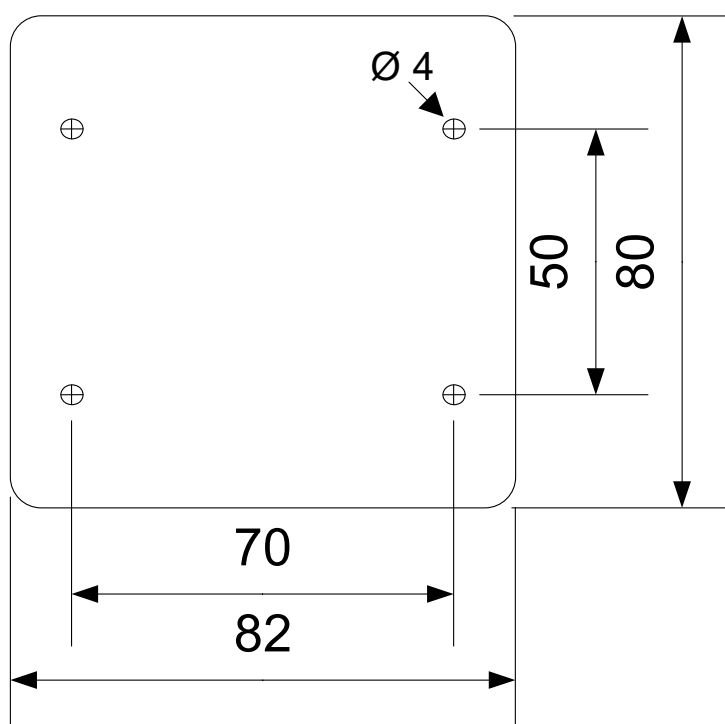


Fig. 9 Drilling template filter box FBS 25 (small)

7 Maintenance / Service



NOTICE

Country-specific guidelines and standards apply to the maintenance work and servicing. Servicing of fire alarm systems must be carried out only by trained personnel and in accordance with the applicable safety regulations!

Furthermore, the technical documentation of the respective aspirating smoke detector must be considered.



NOTICE

When carrying out maintenance work on the aspirating smoke detector, the filter mats for the filter box FBS 25 (small) should be replaced, if necessary, and any contamination inside the filter box should be removed.

8 Article numbers

Abbreviated designation		Art. no. SECURITON
Aspirating smoke detector SecuriRAS ASD 535-1	ASD 535-1	11-2000015-01-xx
Aspirating smoke detector SecuriRAS ASD 535-2	ASD 535-2	11-2000016-01-xx
Aspirating smoke detector SecuriRAS ASD 535-3	ASD 535-3	11-2000017-01-xx
Aspirating smoke detector SecuriRAS ASD 535-3 HD	ASD 535-3 HD	11-2000036-01-xx
Aspirating smoke detector SecuriRAS ASD 535-4	ASD 535-4	11-2000018-01-xx
Aspirating smoke detector SecuriRAS ASD 535-4 HD	ASD 535-4 HD	11-2000037-01-xx
Smoke sensor SSD 535-1	SSD 535-1	11-2000008-01-xx
Smoke sensor SSD 535-1-CP	SSD 535-1-CP	11-2000011-01-xx
Smoke sensor SSD 535-2	SSD 535-2	11-2000009-01-xx
Smoke sensor SSD 535-2-CP	SSD 535-2-CP	11-2000012-01-xx
Smoke sensor SSD 535-3	SSD 535-3	11-2000010-01-xx
Smoke sensor SSD 535-3-CP	SSD 535-3-CP	11-2000013-01-xx
Filter box FBS 25 (small)	FBS 25 PC	50-0500143-01-xx
Filter mat for filter box FBS 25 (PU = 5)	FBS 25 EFM	50-0500112-02-xx
Wire connection unit WCU 535 PC	WCU 535 PC	11-2300046-01-xx
3-way ball cock MV 25 PVC	MV 25 PVC	50-0500175-01-xx
Three-way ball cock with safety lever MV 25 PVC (SH)	MV 25 PVC (SH)	11-2300081-01-xx
3-way ball cock MV 25 ABS	MV 25 ABS	50-0500174-01-xx
3-way ball cock with safety lever MV 25 ABS (SH)	MV 25 ABS (SH)	11-2300080-01-xx

9 Technical data

Features		
Environmental conditions		
Expanded environmental conditions:		
• Temperature range	-30 to +60	°C
Connection	2x fittings M32 incl. sealing	mm
Housing material	Polycarbonate (PC)	
Filter mat material	Polyester fibre	
Housing colour	Light grey 7035	RAL
Approval		
VdS	G208154	
Building product approval	0768-CPR-20600	
Dimensions (H x W x D)		
- Without fittings:	80 x 82 x 85	mm
- With fittings:	150 x 82 x 85	mm
Weight	0.279	kg

10 List of figures

Fig. 1 Filter box FBS 25 (small) open	13
Fig. 2 Standard installation for use in deep-freeze area with wiring connection unit WCU 535 PC.....	15
Fig. 3 Installation without wiring connection unit WCU 535 PC	16
Fig. 4 Installation orientation of filter box FBS 25 (small).....	17
Fig. 5 Installation direction filter mat.....	18
Fig. 6 Installation in the filter mat holder.....	18
Fig. 7 Finish the filter mat flush	19
Fig. 8 Install the lid.....	19
Fig. 9 Drilling template filter box FBS 25 (small).....	20