

Filter-box FBX 25 (extra large)

Technical Documentation



Manufacturer:

SECURITON GmbH
Von-Drais-Straße 33
77855 Achern, Germany
www.securiton.de

The product (hardware, software and technical documentation) is subject to the copyright of the manufacturer. Any prohibited modification, misuse, copying or prohibited sale of this product represents a violation of the copyright and will be legally prosecuted.

Copyright by SECURITON GmbH

Validity



NOTICE

This document is valid only for the product described in this chapter and may be changed or withdrawn without prior notice. The validity of the statements made in this document applies until the statements are revised by a new edition of the document (TD004033 with new index). The user of this document is responsible for staying up to date with its current status through the editor/publisher. We accept no responsibility for claims against any incorrect statements in this document that were unknown to the publisher at the time of publication. Handwritten changes and additions are invalid.

Foreign language documents as listed in this document are always released or changed at the same time as the German edition. If there are inconsistencies between the foreign language document and the German document, the German text is binding.

Some words in this document are highlighted in blue. These terms and designations are the same in all languages and are not translated. Users are encouraged to contact the editor/publisher if there are statements which are unintelligible, misleading, incorrect or which contain errors.

This document is intended for trained specialists for mounting, installation, commissioning and maintenance of the product.



HINWEIS

This document is intended solely for guidance of customers, and, where applicable, their employees, on the state of affairs concerning its subject. Whilst every effort has been made to ensure its accuracy, readers should not rely upon its completeness or correctness, nor rely on it as legal interpretation. SECURITON will not be liable for the provision of any incorrect or incomplete information. Note: The German version of this document is the approved reference document.



HINWEIS

The product and all associated documents that correspond to a quality assurance process. We are heard to incorporate all changes promptly. Heard there can be changes come that are not yet closed. SECURITON GmbH buy themselves before the unannounced rights. This document contains the status at the time of going to press. The latest version of the documentation can be become right at first.



NOTICE

The following document is applicable to the filter-box FBX 25 (extra large) with the following production version:

Production version
from 100326

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

Document history

First edition **Date 30.04.2010**

Index "a" **Date 12.01.2012**

Main changes to the first issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
8	c	Project planing notice	Correction
9	c	Part numbers	supplement
10	c	Technical data	New format

Index "b" **Date 17.07.2014**

Main changes to the previous issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
all	c	Documentation page format adjusted	New document format
2.1	n	Structure filter box extra large	New construction
2.1.1	n	Accounting for fixing the filter block	New construction
2.2	n	Structure of the filter box extra large -special version-	New version
4	c	Mounting	Correction
7	c	Part numbers	Correction
9	n	List of figures	supplement

Index "c" **Date 01.07.2016**

Main changes to the previous issue:

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

Index "e" **Date 30.03.2021**

Main changes to the previous issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
All	c	Order, names of headings	New template documentation
Validity	n	Notice on the validity of translations	Adaption to GL product documenta- tion
Validity	n	Notice field version	Addition
1.1	n	Intended Use	Adaption to GL product documenta- tion
5	c	Fig. 4 Standard-Installation filter-box FBX 25 (extra large)	Adjustment of labeling off he compo- nents
5	c	Fig. 5 Installation filter-box FBX 25 (extra large) with automatic blow out device ADB 1000	Adjustment of labeling off he compo- nents
8	c	Article numbers	Article number ASD 53x, MV 25, Arti- cle number filter mat filter-box FBL 25 (VE=5), Dust retaining box DRB 25

Index "f" **Date 26.03.2026**

Main changes to the previous issue:

Chapter	New (n) / changed (c) / deleted (d)		What / Reason
5	c	Fig. 4 + 5 adjusted	Labeling in the drawing adjusted
6.2	n	Replacement of filter mat block	New subchapter regarding the re- placement of the filter mat block
6.3	n	Drilling template	New subchapter
8	c	Item descriptions adjusted	Update of ADB designation

Content

1	General	7
1.1	Intended Use	7
1.2	Safety and the environment	7
1.2.1	Notice and warning symbols	7
1.2.2	Safety information	8
1.2.3	Regulation EC No. 1907/2006 (REACH)	9
1.2.4	Disposal	9
1.3	Product identification	9
1.4	Guarantee	9
1.5	Product changes	9
2	Application area	10
3	Construction	11
3.1	Structure filter-box FBX 25 (extra large)	11
3.1.1	Accounting for fixing the filter block	11
3.2	Structure of the filter-box FBX 25 (extra large) – Special version –	12
4	Function	13
5	Mounting guidelines	14
6	Mounting / Commissioning	16
6.1	Mounting orientation filter-box	16
6.2	Filter mat block replacement	17
6.3	Drilling template	19
7	Maintenance / Service	20
8	Article numbers	21
9	Technical data	22
10	List of figures	23

1 General

1.1 Intended Use



Intended Use: Fire safety

NOTICE

1.2 Safety and the environment

Provided the product is deployed by trained and qualified personnel in accordance with this document, and provided the safety symbols all notices are observed, there is no danger to persons or property under normal conditions and when used properly. The product fulfils the requirements ensuring personal safety and environmental protection during operation. National and state-specific laws, regulations and directives must be observed and adhered to in all cases.

Observe these danger notices. They help prevent accidents and damage.

1.2.1 Notice and warning symbols

The following notice and warning symbols are used to draw attention to hazards and special properties.



DANGER

The product may represent an immediate danger with a high level of risk to persons if the notice is not duly observed. If the danger is not avoided, death or serious injury may result.



WARNING

The product may represent a possibly imminent danger with a medium level of risk to persons if the notice is not duly observed. If the danger is not avoided, death or serious injury may result.



CAUTION

The product may represent a possibly imminent danger with a low level of risk to persons if the notice is not duly observed. If the danger is not avoided, a minor injury may result.



NOTICE

If this notice is not observed, the product may malfunction, may cause property damage, or may be harmful to the environment.

1.2.2 Safety information



ELECTRICAL SHOCK

The product is operated with electrical current. In the event of incorrect mounting, installation, commissioning or maintenance, an electrical shock may be life-threatening or there is the danger of serious injury. It is imperative that the safety information is observed.



READ THE USER INSTRUCTIONS

To ensure safe and proper use, it is absolutely necessary to read the instructions and other documentation accompanying the product before use and to keep such documentation at hand for later reference. It is imperative that the danger information in particular is observed.



ELECTROSTATIC DISCHARGE

The product includes electronic components that are sensitive to electrostatic discharge (ESD). Contact with persons or objects can cause an electrostatic discharge that damages or destroys the product. ESD bands for preventing electrostatic discharge are used for grounding persons and for equipotential bonding.

1.2.3 Regulation EC No. 1907/2006 (REACH)



REGULATION EC NO. 1907/2006 (REACH)

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

If the products contain substances from 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 associated safe handling, please visit the following website: <https://www.securiton.de/>.

1.2.4 Disposal



Electrical and electronic devices and batteries

It is not permitted to dispose of electrical and electronic devices or batteries in the domestic rubbish. As the end user you are legally obliged to return them. Used electrical and electronic devices as well as batteries can be returned to the seller or taken to a designated recycling centre (e.g. a community collection point or dealer) at no cost.



RECYCLING

The product and its components including their packaging consist of recyclable material and can be disposed of for recycling purposes as described in this document.

1.3 Product identification



NOTICE

The rating plates, type designations and/or identifications on devices and printed circuit boards must not be removed, written over or defaced in any way.

1.4 Guarantee



NOTICE

The product may be operated only with the hardware, software and commissioning media designated and delivered by the manufacturer. Any unauthorised intervention in the hardware and/or software or the use of non-system products is prohibited and may result in malfunctions and/or damage to the product. If this is not observed, all guarantee and warranty rights with respect to the manufacturer of the product will become null and void. Further, non-observance of the user instructions as well as improper maintenance and repair work void the guarantee and product liability.

1.5 Product changes



NOTICE

It is always recommended to use the latest version of the product software. A change to hardware or software of a product made by the manufacturer, is not a right to an update for existing products.

2 Application area

The filter-box FBX 25 (extra large) is used as an accessory part for aspirating smoke detectors in areas with **normal temperature conditions** (up to 0°C) and very high dust levels to prevent false alarms and to increase the lifespan of the smoke sensors substantially.

The filter insert is designed for the separation of particles and impurities >15 µm. Due their particle size, smoke particles can pass through this filter unhindered. Reliable and fast fire detection is thus ensured.

3 Construction

The filter-box FBX 25 (extra large) is part of the suction pipe. The housing is made of polycarbonate, light grey paint, RAL 7035. The filter box can be opened using the 6 cover screws in order to be able to replaced both of the filter mat blocks "fine stage" during servicing work.

3.1 Structure filter-box FBX 25 (extra large)

The structure of the filter-box FBX 25 (extra-large) can be seen in the figure below. It contains two filter mat blocks and a bracket for fixing the filter block.

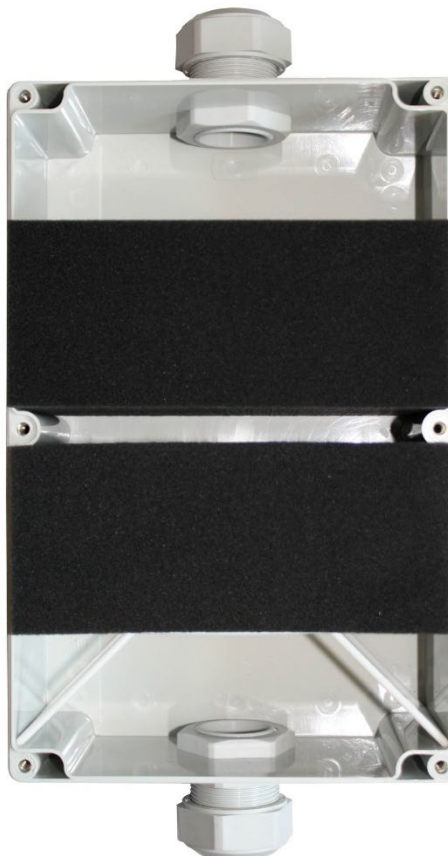


Fig. 1 Filter-box FBX 25 (extra large) open

3.1.1 Accounting for fixing the filter block

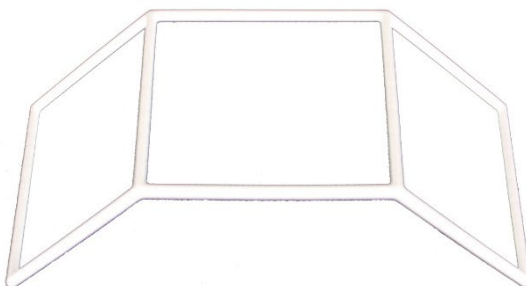


Fig. 2 Accounting for fixing the filter block

3.2 Structure of the filter-box FBX 25 (extra large) – Special version –

The structure of the filter-box FBX 25 (extra large) – special version – be seen in the figure below. It contains a filter mat block and a bracket for fixing the filter block.



Fig. 3 Filter-box FBX 25 (extra large) – Special Version –

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 FBX 25 (extra large) can be used for this purpose as an additional accessory component.

This is to be arranged directly in front of the evaluation unit in the suction pipe (see project planning notice). The aspirated air is conducted across the filter mat blocks to filter the dust particles. If the filter mat blocks is contaminated, it should be replaced during maintenance.

Advantages of the filter-box FBX 25 (extra large):

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

5 Mounting guidelines

Dimensions in mm

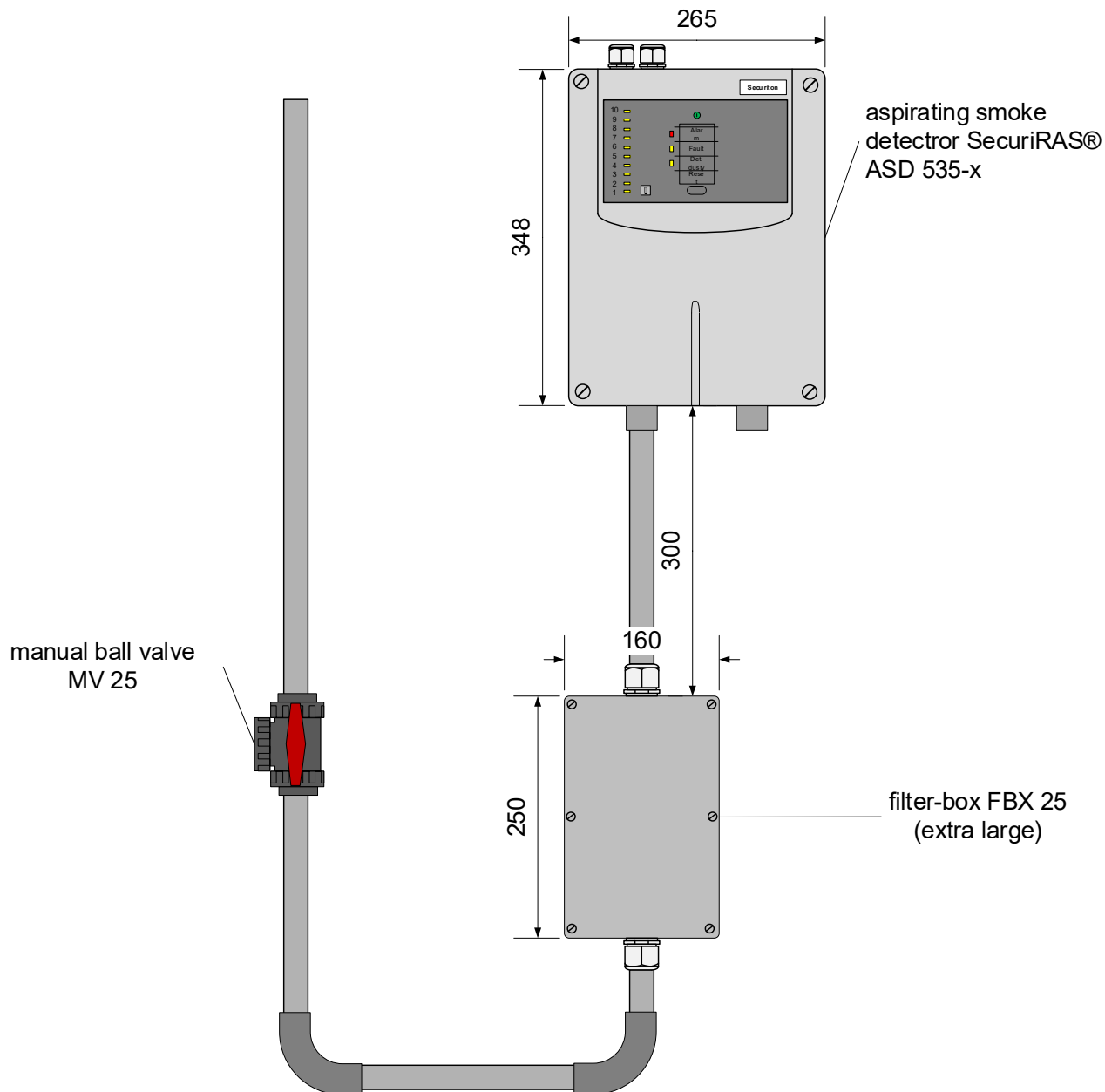


Fig. 4 Standard-Installation filter-box FBX 25 (extra large)

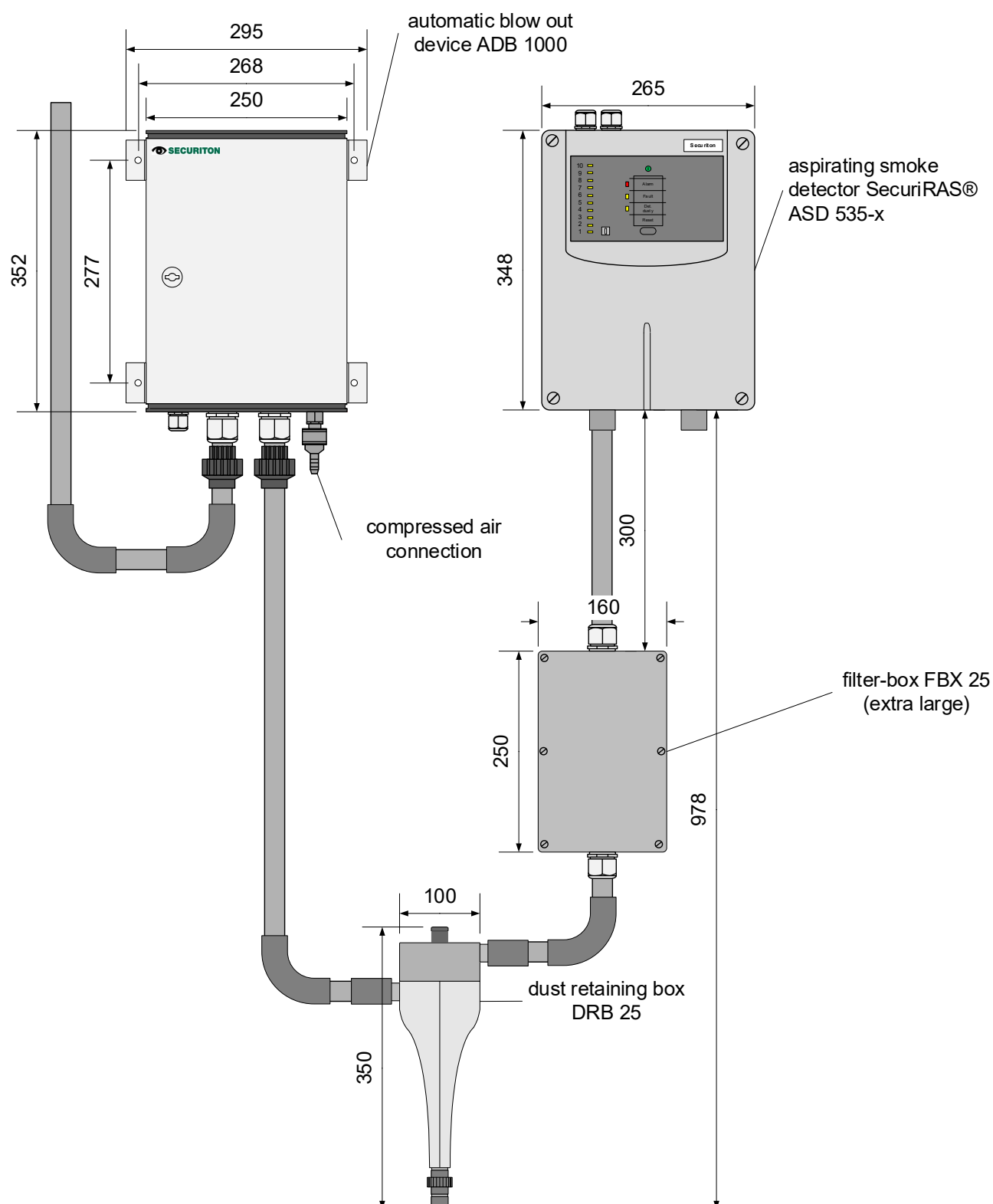


Fig. 5 Installation filter-box FBX 25 (extra large) with automatic blow out device ADB 1000

6 Mounting / Commissioning

The filter-box FBX 25 (extra large) must always be installed below the aspirating smoke detector to prevent false alarms due to falling dust particles. Assembly and arrangement should be carried out in accordance with the project planning notice.

6.1 Mounting orientation filter-box

Dimensions in mm

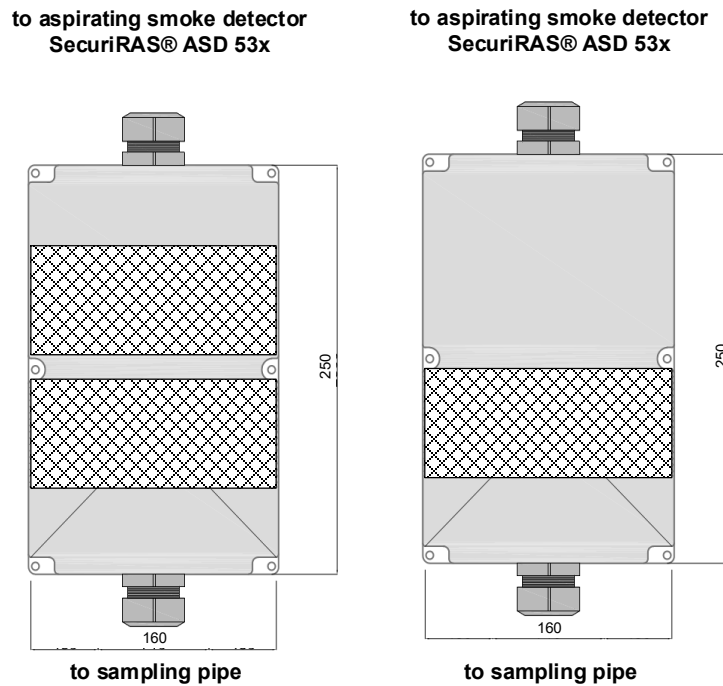


Fig. 6 Mounting filter-box FBX 25 (extra large)

6.2 Filter mat block replacement

The filter mat block is inserted into the cover first. Align the filter mat block with the central screw connection of the cover.

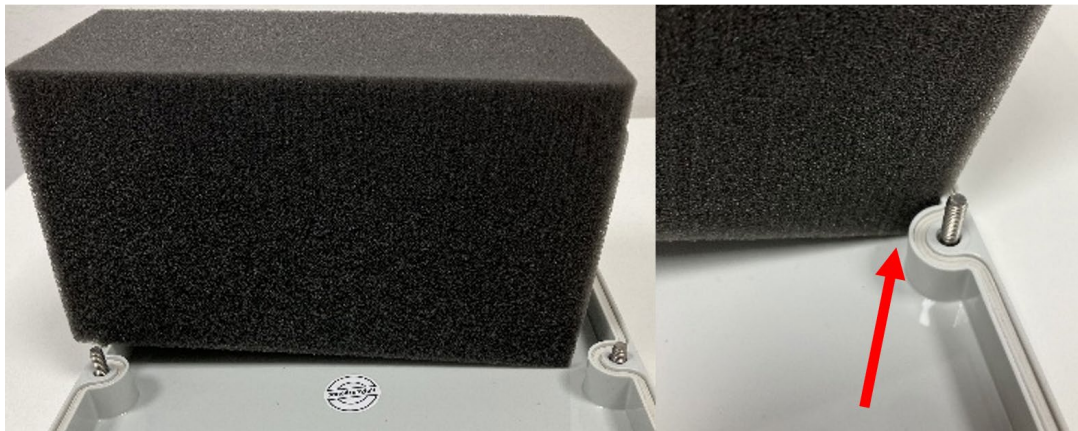


Fig. 7 Insert the filter mat block into the cover – Step 1



CAUTION

Ensure that the edge of the filter mat block is properly seated in the inner edge of the cover and is not folded over.

Then gently compress the filter mat block and place it into the opposite long side of the cover.



Fig. 8 Insert the filter mat block into the cover – Step 2

Mounting / Commissioning

Repeat the previous procedure with the second filter mat block.



Fig. 9 Filter mat blocks inserted into the cover

Place the cover of the filter box, including the filter mat blocks (Fig. 9), onto the prepared housing with the filter mat holder.



CAUTION

Ensure that the edge of the filter mat block does not fold over when inserting it into the housing.
Also ensure that the lower filter mat block is seated on the filter mat holder.

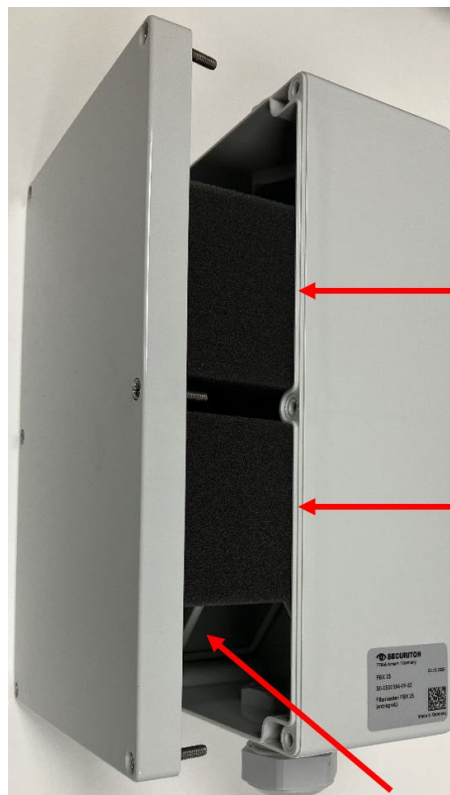


Fig. 10 Installing the cover

6.3 Drilling template

Dimensions in mm

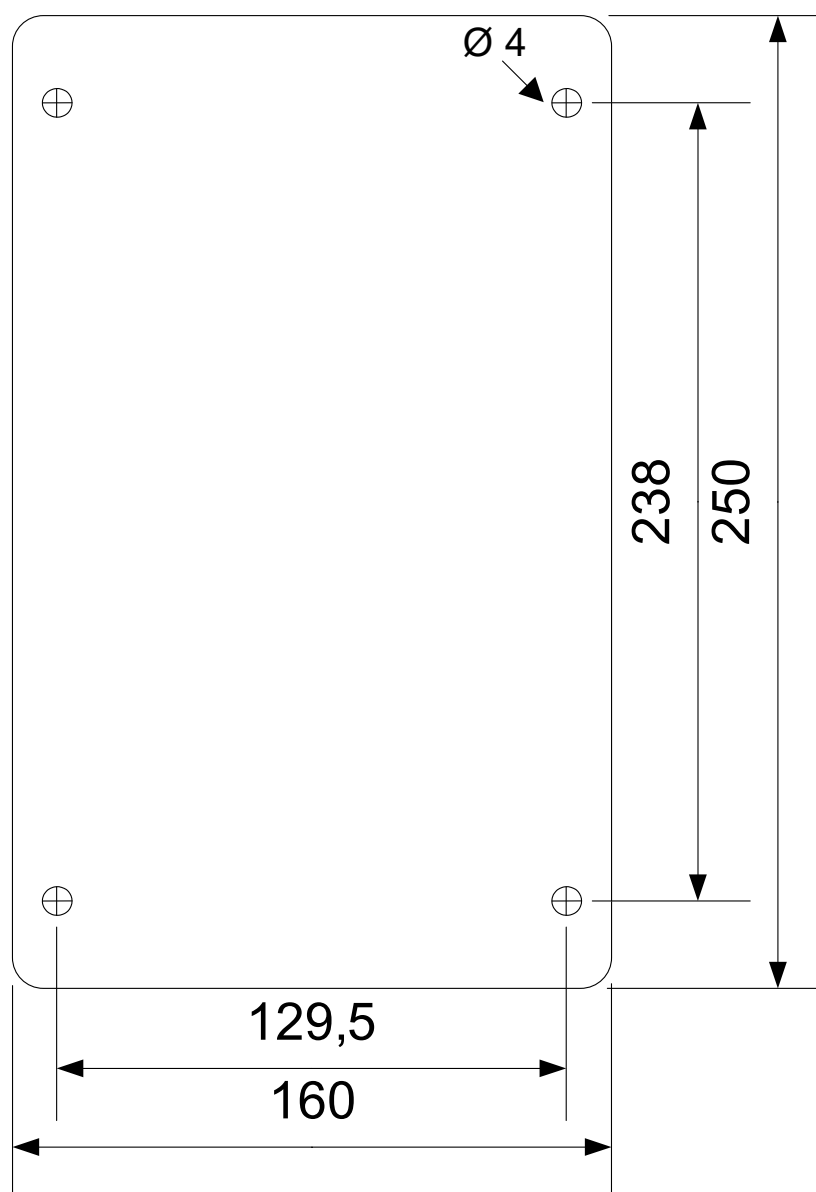


Fig. 11 Drilling template filter box FBX 25 (extra large)

7 Maintenance / Service



NOTICE

Maintenance and service work on fire alarm systems are subject in part to country-specific laws and directives.

Maintenance and service work may be performed only by persons trained and authorised by the manufacturer of the aspirating smoke detector.

The technical documentation of the respective aspirating smoke detector must always be considered.



NOTICE

When carrying out maintenance work on the aspirating smoke detector, the filter mat should be replaced for the filter-box FBX 25 (extra large), if necessary, and contamination within the filter box should be removed.

Depending on the version of the filter-box FBX 25 (extra large) will need one or two units when replacing the filter mat blocks.

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 FBX 25 (extra large)	FBX 25	50-0500184-01-xx
Filter box FBX 25 (extra large) - special version -	FBX 25	50-0500184-02-xx
Filter mat filter-box FBX 25	FBX 25 EFM	50-0500530-01-xx
Dust retaining box DRB 25	DRB 25	50-0500635-01-xx
Automatic blow out device ADB 1000	ADB 1000	50-0500520-01-xx
Automatic blow out device ADB 2000	ADB 2000	50-0500523-01-xx
Manual ball valve MV 25 PVC	MV 25 PVC	50-0500175-01-xx
Manual ball valve MV 25 PVC with safety lever	MV 25 PVC (SH)	11-2300081-01-xx
Manual ball valve MV 25 ABS	MV 25 ABS	50-0500174-01-xx
Manual ball valve MV 25 ABS with safety lever	MV 25 ABS (SH)	11-2300080-01-xx

9 Technical data

Features		
Environmental conditions		
Expanded environmental conditions:		
• Temperature range	0 to +60	°C
Introduction	2x screw connections M32 incl. sealing	mm
Housing material	Polycarbonate (PC)	
Housing colour	Light grey 7035	RAL
Approval		
VdS	G208154	
Building product approval	0768-CPR-20600	
Dimensions (H x W x D)	250 x 160 x 90	mm
Weight	max. 500	g

10 List of figures

Fig. 1 Filter-box FBX 25 (extra large) open	11
Fig. 2 Accounting for fixing the filter block.....	11
Fig. 3 Filter-box FBX 25 (extra large) – Special Version –.....	12
Fig. 4 Standard-Installation filter-box FBX 25 (extra large).....	14
Fig. 5 Installation filter-box FBX 25 (extra large) with automatic blow out device ADB 1000	15
Fig. 6 Mounting filter-box FBX 25 (extra large).....	16
Fig. 7 Insert the filter mat block into the cover – Step 1.....	17
Fig. 8 Insert the filter mat block into the cover – Step 2.....	17
Fig. 9 Filter mat blocks inserted into the cover	18
Fig. 10 Installing the cover	18
Fig. 11 Drilling template filter box FBX 25 (extra large).....	19