

Filter-box FBS 25 (small)

Technical Documentation



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Validity



NOTICE

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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.



NOTICE

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

Production version
from 10716

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 01.02.2018

Index "a" Date 12/01/2012

Most important changes compared with previous 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

Most important changes compared with 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 01/07/2016

Most important changes compared with previous issue:

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

Index „d“ Datum 01.07.2019

Wichtigste Änderungen gegenüber Vorausgabe:

Kapitel	Neu (n) / geändert (c) / gelöscht (d)		Was / Grund
• All	c	Order, names of headings	New template documentation
• 5	c	Update Fig.2 & Fig. 3	Supplement labeling, dimensioning
• 6	c	Update Fig.4	Supplement labeling, dimensioning
• 8	c	Article numbers	New document format

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1 General

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.

1.1.1 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.

1.1.2 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.

1.1.3 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/>.

1.1.4 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.



1.1 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.

1.2 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.

1.3 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 small FBS 25 is used as an accessory part for aspirating smoke detectors SecuriRAS® in areas with **low temperature conditions** (below 0°C) and 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. 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 FBS 25 (small) is part of the sampling pipe. The housing is made of polycarbonate, light grey paint (RAL 7035). The filter box can be opened using the four cover screws in order to clean the filter mat small to change it.

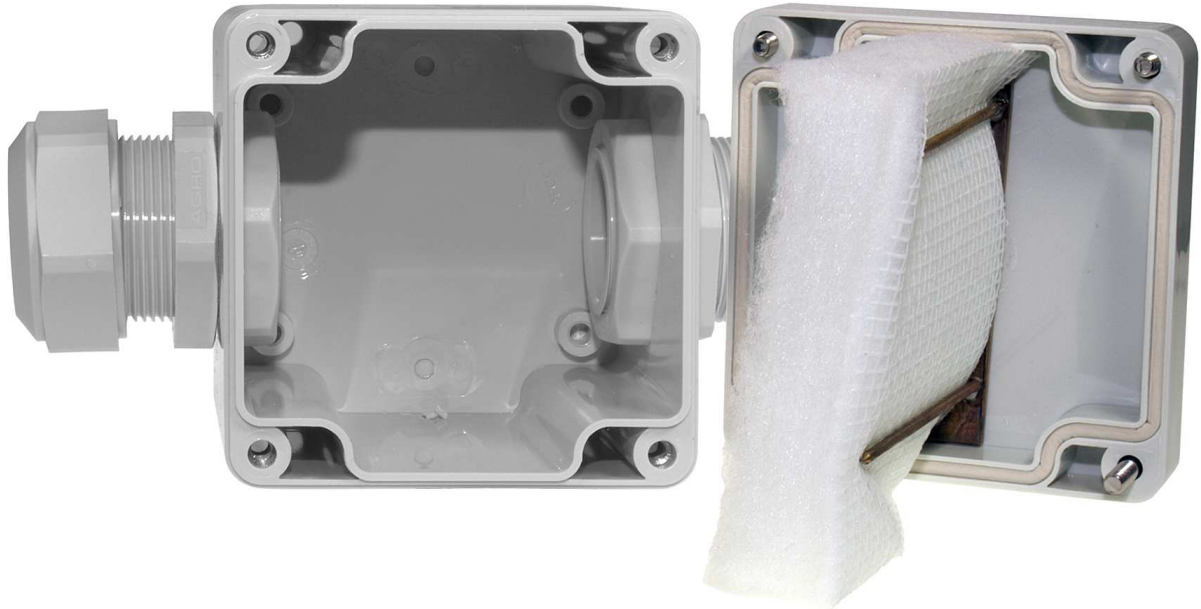


Fig. 1 Filter-box small FBS 25 open

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 for this purpose as an additional accessory component.

This is to be arranged directly in front of 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 replaced during maintenance.

Advantages of the filter-box FBS 25 (small):

- 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
- **Field of application deep freeze area**

5 Mounting guidelines

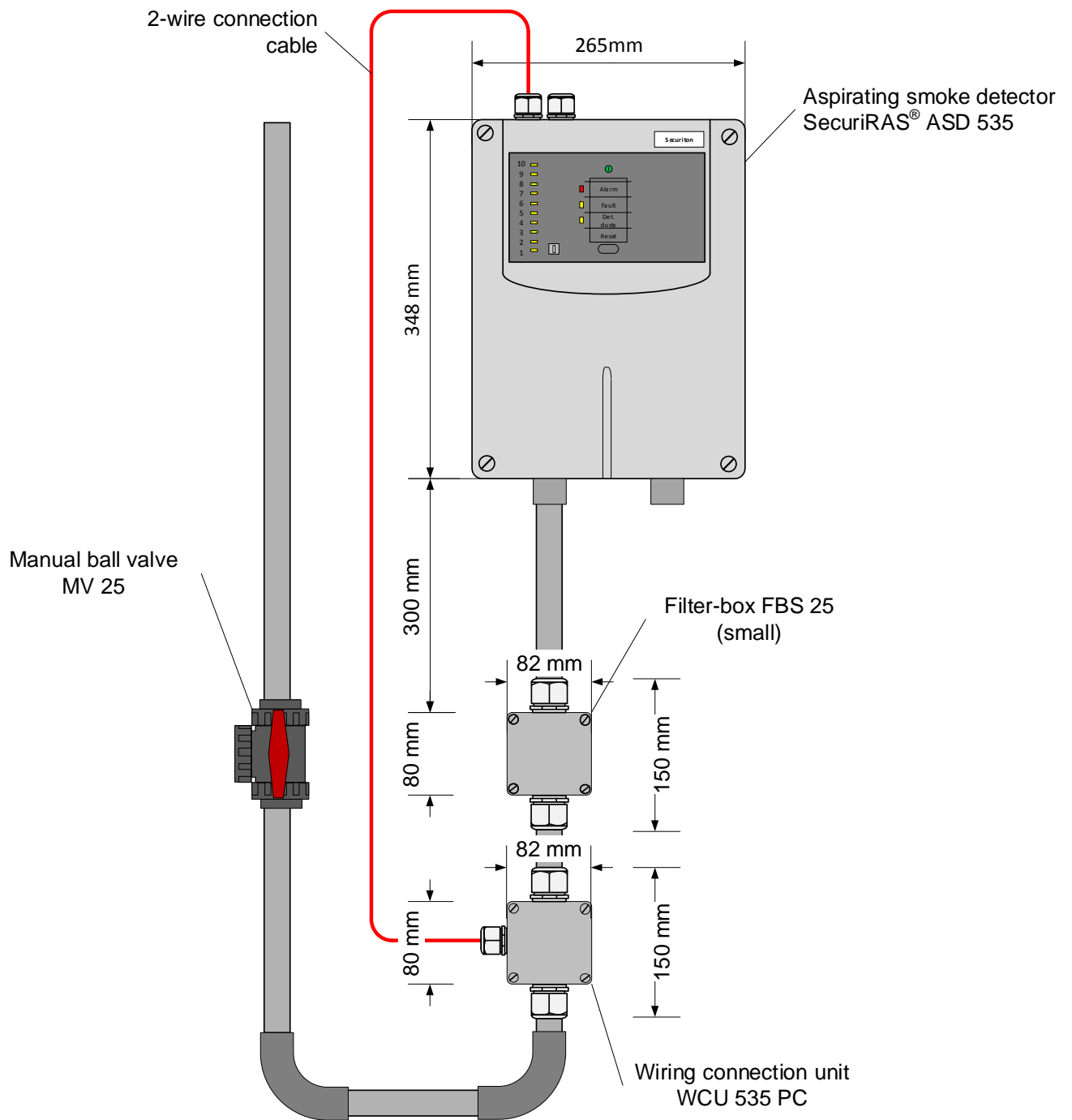


Fig. 2 Standard-Installation for use in deep freeze area with the Wiring connection unit WCU 535 PC

Optional:

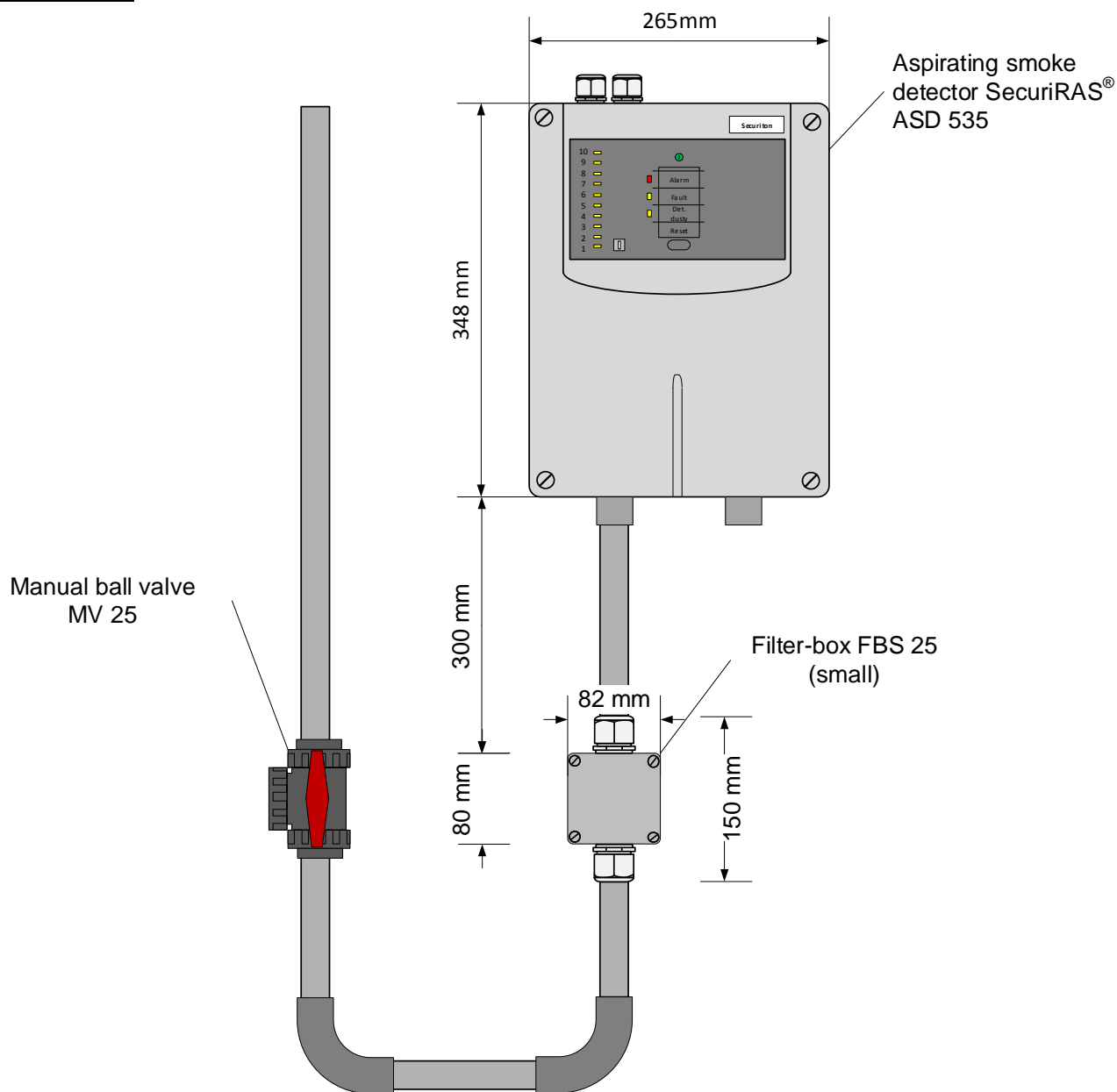


Fig. 3 Installation without the Wiring connection unit WCU 535 PC

6 Mounting / Commissioning

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

4.1 Mounting of the filter mat filter-box FBS 25 (small)

The Filter mat has to be placed with the mash side to the ASD and the fleece side in direction of the sampling pipe.

to the aspirating smoke detector
SecuriRAS® ASD 53-x

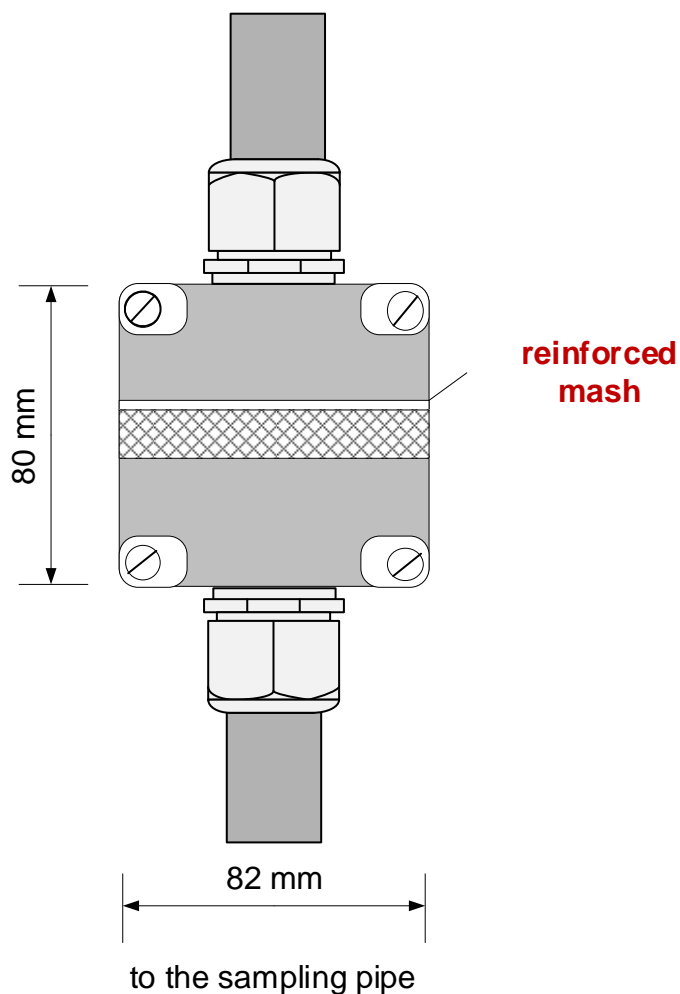


Fig. 4 Mounting orientation filter-box FBS 25 (small)

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.

When carrying out maintenance work on the aspirating smoke detector, the filter mat should be replaced for the filter box "small", if necessary, and contamination within the filter box should be removed.

8 Article numbers

Abbreviated designation		Art. No. SECURITON
Aspirating smoke detector SecuriRAS® ASD 535-1	ASD 535-1	5000623-0101
Aspirating smoke detector SecuriRAS® ASD 535-2	ASD 535-2	5000623-0102
Aspirating smoke detector SecuriRAS® ASD 535-3	ASD 535-3	5000623-0103
Aspirating smoke detector SecuriRAS® ASD 535-4	ASD 535-4	5000623-0104
Smoke sensor SSD 535-1	SSD 535-1	5000613-0101
Smoke sensor SSD 535-1 CP	SSD 535-1 CP	5000613-2201
Smoke sensor SSD 535-2	SSD 535-2	5000613-0102
Smoke sensor SSD 535-2 CP	SSD 535-2 CP	5000613-2202
Smoke sensor SSD 535-3	SSD 535-3	5000613-0103
Smoke sensor SSD 535-3 CP	SSD 535-3 CP	5000613-2203
Filter-box FBS 25 (small)	FBS 25 PC	50-0500143-01-xx
Filter mat filter-box FBS 25	FBS 25 filter mat	50-0500112-01-xx
Wire connection unit WCU 535 PC	WCU 535 PC	11-2300046-01-xx
Manual ball valve MV 25 PVC	MV 25 PVC	50-0500175-01-xx
Manual ball valve with safety lock MV 25 PVC	MV 25 PVC (SH)	50-0500175-02-xx
Manual ball valve MV 25 ABS	MV 25 ABS	50-0500174-01-xx
Manual ball valve with safety lock MV 25 ABS	MV 25 ABS (SH)	50-0500174-02-xx

9 Technical data

Features		
Environmental conditions		
Expanded environmental conditions:		
• Temperature range	-30 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)		
- without fittings:	80 x 82 x 85	mm
- with fittings:	150 x 82 x 85	mm
Weight		
- without packaging:	0,279	kg
- with packaging:	0,330	kg

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