

DFU 911

Dust filter unit for ASD

From manufacturing status 200619

Firmware versions:

- ASD 531/532 from 01.01.xx from
- ASD 533/535 01.08.xx from 2.1.0

Software versions:

- ASD Config from 2.5.0
- ASD PipeFlow

If you want to use an ASD aspiration smoke detector in environments with dust or dirt, a DFU 911 dust filter unit can be installed in the aspiration pipe. This will considerably increase the useful life of the smoke sensors installed in the ASD, while achieving greater reliability against false alarms.

The filter monitoring function activated in the ASD warns when it is the optimal time to replace the filter element, once a predetermined useful life has elapsed depending on use.



Fig. 1 DFU 911

Description

The DFU 911 dust filter unit consists of a two-piece housing, which can be opened by releasing the locking tabs to replace the RFC 911 filter element.

The variant **DFU 911S** includes a mechanical spring flap at the bottom of the housing that generates an airflow failure if the filter element is not available (requirement according to NS 3960:2019).

The DFU 911 is fixed using two holes located at the bottom of the housing. The necessary fixing material is supplied together with the DFU 911 (S6 dowels, Torx screws $\varnothing 4.5 \times 40$ mm, M4 washers $\varnothing 4.3/12 \times 1$ mm).

The inlet and outlet suction ducts are connected by screw closures to two tube connections located opposite each other.

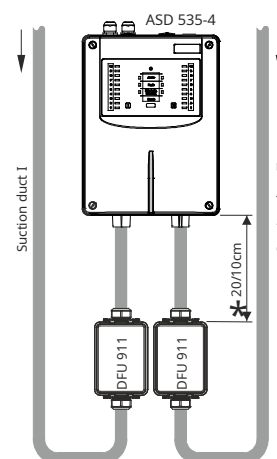


Fig. 2 Placing the DFU 911 in the suction duct

Assembly / Installation



To install the DFU 911 dust filter unit in ASD fire detection systems, the instructions and information contained in the «**Technical description**» of the aspiration smoke detector used. In particular, the instructions on the use and installation of additional accessories such as dust trap, water separator, automatic drain device, etc. must also be observed.

The dust filter unit DFU 911 should preferably be installed below the aspirating smoke detector, just before the entrance into the detector box. For detectors with two aspiration ducts (ASD 535-2 and ASD 535-4), the two DFU 911 units can be placed next to each other at the same height. The minimum clearance between the ASD and the DFU should be as follows (see also **Fig. 2**):

- ASD 531/532 min. 10cm
- ASD 533/535 min. 20cm (*with ASD cover parked)

The flow direction of the sucked air must be respected. For this purpose, the arrow-shaped marking on the inside of the DFU 911 must be taken into account (see also **Fig. 3**).

To prevent damage to the RFC 911 filter element, it must be removed before mounting the DFU 911.

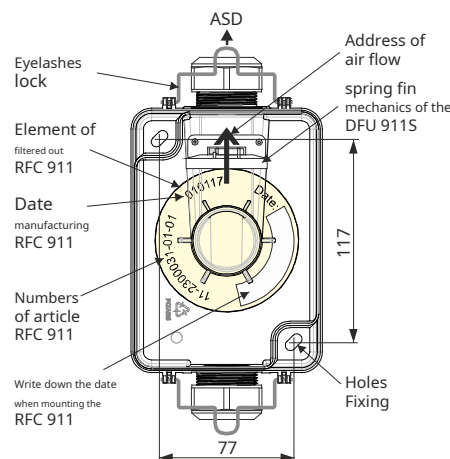


Fig. 3 Air flow direction in the DFU 911

Before inserting the filter element into the **DFU 911S** the spring flap must be opened (**Fig. 3**).

For commissioning or after replacement, the current date must be noted in the field provided for this purpose in the filter element RFC 911 (see also **Fig. 3**).

Data sheet

Filter monitoring

The dust filter unit DFU 911 can be monitored from the ASD (this is possible from the FW/SW versions indicated on page 1). The degree of contamination of the filter element is not monitored, but only a "filter useful life" time pre-established in the ASD for the use in question. Once this period has elapsed, a failure message is generated in the ASD.

To reset this fault it is necessary to replace the filter element, which must be activated directly in the ASD with the "filter replacement" function. Once the filter element has been replaced, the fault can be reset in the ASD and monitoring of the filter life (service time) will start again from "0".

Use-specific filter monitoring parameters can be set directly in the ASD or via the "ASD Config" software.

Other instructions on filter monitoring can be found in the « **Technical description** » of the aspiration smoke detector used.

Dimensioned drawing

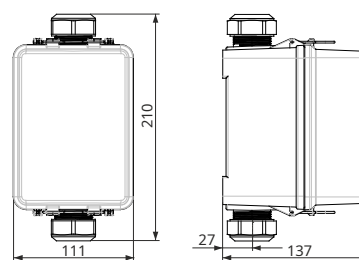


Fig. 4 Dimensioned drawing and drilling diagram of the DFU 911

Article numbers and spare parts

Reference	Item No.	
DFU 911 Dust Filter Unit	11-2300030-01-XX	
DFU 911S Dust Filter Unit	11-2300103-01-XX	
RFC 911 filter replacement part	11-2300031-01-XX	
RFC 911VE20 filter replacement part (20 units)	11-2300031-02-XX	
Technical descriptions	ASD 531	T 140 416
	ASD 532	T 140 421
	ASD 533	T 140 287
	ASD 535	T 131 192

Conservation and maintenance

Depending on the specific use, the aspiration smoke detector must undergo an inspection at least once a year, which will be carried out by the manufacturer or by technical personnel authorized and trained by it.

If a DFU 911 dust filter unit is used, the life of the filter element will be essential to determine the maintenance frequency. Depending on the amount of dust and dirt in the building, filter life can vary considerably.

The filter of the DFU 911 must be replaced at the latest at the end of the replacement interval and in accordance with the following table. If the intended use does not clearly fit any of the listed sections, a replacement interval of 3 months will apply. It is recommended to program the replacement interval in the ASD filter monitoring function provided for this purpose, in order to receive the corresponding warning and ensure timely replacement of the filter.

Presence of dust or dirt expected	Typical applications	Does not need filter	12 months	3 months
Low or minimal presence of dust or dirt	IT infrastructure	X		
	aseptic areas	X		
Average presence of dust or dirt	Warehouses with or without forklift operation		X	
	False ceilings/false floors		X	
	Public Buildings		X	
	Cable tunnels/service tunnels		X	
	Electrical cabinets/transformers/wind power plants		X	
High or very high presence of dust or dirt	Production			X
	recycling plants			X
	Carpentry, wood treatment plants			X

Technical data

Guy	DFU 911		
Environmental conditions according to IEC 60721-3-3 / EN 60721-3-3	3K5/3Z1		class
Expanded environmental conditions:			
• DFU 911 Temperature Range	0 – +60		°C
• Max. temperature Allowable storage (non-condensing)	0 – +70		°C
• Ambient humidity conditions (temporarily non-condensing / permanent)	95/70		% hum. rel.
Case material	ABS mix, UL 94-V0		
Case color	gray 280 70 05 / anthracite violet 300 20 05		RAL
Homologation	EN 54-20 / EN 54-27		
Dimensions (W x H x D)	111x210x137		mm
Weight (DFU 911 / DFU 911S)	490 / 505		g

Modifications to the "b" index on all pages