

DFU 911

Dust filter unit for ASD

As of production version 040917

- Firmware versions:
- ASD 531/532 from 01.01.xx
 - ASD 533/535 from 01.08.xx
- Software versions:
- ASD Config from 2.1.0

A DFU 911 dust filter unit can be used in the sampling pipe tube network of an ASD aspirating smoke detector in applications with dust or dirt. This significantly increases the service life of the smoke sensors used in the ASD and greatly reduces the likelihood of false alarms.

A filter monitoring function in the ASD can be activated to indicate when the defined application-specific service life of a filter expires so that you can replace the filter element at the optimal time.



Fig. 1 DFU 911

Description

The DFU 911 dust filter unit consists of a two-part housing that can be opened by releasing the lock clamps to replace the RFC 911 replacement filter element.

The two holes in the housing base are for fastening the DFU 911. The required fastening materials are included with the DFU 911 (S6 dowels, Torx wood screws $\varnothing 4.5 \times 40$ mm, M4 U-washers $\varnothing 4.3/12 \times 1$ mm).

The incoming and outgoing sampling pipes are connected to two pipe connectors opposite each other by means of screw locks.

Mounting / Installation



When setting up ASD fire alarm systems with the DFU 911 dust filter unit, the information and specifications in the “**Technical Description**” of the used aspirating smoke detector must be observed and adhered to. It is of particular importance to observe the information about use and installation of accessory parts, e.g. dust trap box, water retaining box, automatic blow out device etc.

It is preferable to position the DFU 911 dust filter unit below the aspirating smoke detector immediately in front of the entry to the detector housing. On aspirating smoke detectors with two sampling pipes (ASD 535-2 and ASD 535-4), both DFU 911s can be arranged next to each other at the same height. The minimum spacing between ASD and DFU is as follows (see also Fig. 2):

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

The flow direction of the sampled air must be strictly adhered to. Carefully note the arrow marking inside the DFU 911 (see Fig. 3).

To avoid damage to the RFC 911 filter element, remove it prior to mounting the DFU 911.

When commissioning or after a replacement, enter the current date on the RFC 911 filter element in the field for that purpose (see Fig. 3).

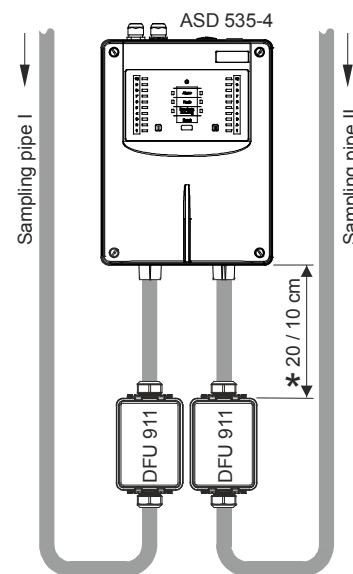


Fig. 2 Positioning of the DFU 911 in the sampling pipe

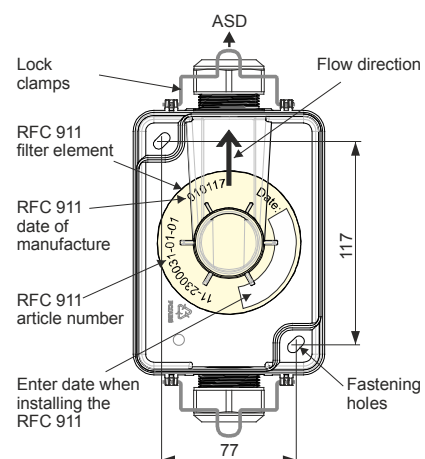


Fig. 3 Flow direction in the DFU 911

Dimensioned drawing

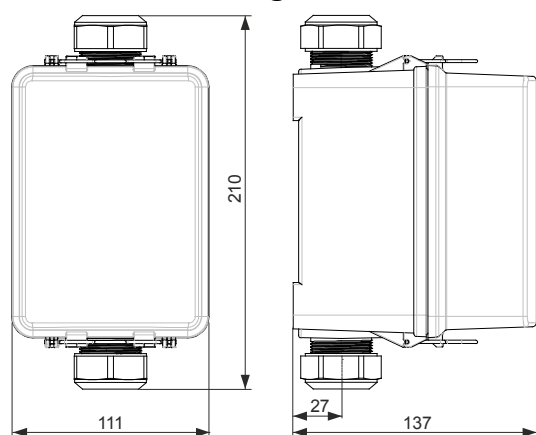


Fig. 4 DFU 911 dimensioned drawing and drilling plan

Filter monitoring

The DFU 911 dust filter unit can be monitored from the ASD (possible beginning with the FW and SW versions specified on page 1). The degree of soiling of the filter element is not monitored but rather the application-specific "filter service life" defined in the ASD. After it expires a fault is triggered in the ASD.

The fault is reset by replacing the filter element; for this purpose the "Filter replacement" function is activated directly on the ASD. Once the filter element is replaced, the fault on the ASD can be reset and the filter service life monitoring (operating life) is restarted at "0".

The application-specific parameters for filter monitoring can be specified directly on the ASD as well as with the "ASD Config" programming software.

More information about filter monitoring is provided in the "Technical Description" of the used aspirating smoke detector.

Maintenance and service

Depending on the application, the aspirating smoke detector must be serviced at least once a year by the manufacturer or by qualified personnel authorised and trained to do so by the manufacturer.

If a DFU 911 dust filter unit is used, the service life of the filter element is taken into account for the maintenance interval. Depending on the level of dust and dirt in the object, filter service life may vary greatly.

The filter element in the DFU 911 must be replaced at the latest when the replacement interval expires as shown in the following table. If it is not clear which of the listed general terms applies to the actual use, a replacement interval of 3 months can be assumed. We recommend programming the replacement interval in the intended filter monitoring function of the ASD to ensure that the filter replacement is signalled in good time.

Application	No filter required	3 months	12 months
IT infrastructure	X		
Clean rooms	X		
Production with high to very high dust level, incl. carpentry workshops and wood processing		X	
Recycling plants		X	
Warehouses with and without forklift operation			X
Hollow ceilings, hollow floors			X
Public buildings			X
Cable tunnels, power supply tunnels			X
Switch cabinets, transformers, wind turbines			X

Article numbers and spare parts

Short designation	Article number	
DFU 911 dust filter unit	11-2300030-01-XX	
RFC 911 replacement filter element	11-2300031-01-XX	
RFC 911VE20 repl. filter element (20 pcs.)	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

Technical Data

Type	DFU 911		
Ambient conditions acc. to IEC 60721-3-3 / EN 60721-3-3	3K5 / 3Z1		class
Extended ambient conditions:			
• DFU 911 temperature range	0 – +60	°C	
• Max. permitted storage temperature (without condensation)	0 – +70	°C	
• Ambient humidity (transient without condensation)	95	% rel. humidity	
• Ambient humidity (continuous)	70	% rel. humidity	
Housing material	ABS blend, UL 94-V0		
Housing colour	grey 280 70 05 / anthracite violet 300 20 05		RAL
Approvals	EN 54-20 / EN 54-27		
Dimensions (W x H x D)	111 x 210 x 137		mm
Weight	490		g