



Membrane filter water stop

The membrane filter water stop protects the gas analyser from liquids, aerosols and particles. The filter installs in the tubing (PTFE) or piping (stainless steel) directly before the gas analyser.

Reliable gas analyser protection from condensate and dust

Compact size

Oil repellent membranes (stainless steel version)

Bypass function ready (stainless steel version)

Easy membrane replacement (stainless steel version)



Description

The membrane filter water stop protects the gas analyser from liquids, aerosols and particles. The filter installs in the tubing (PTFE) or piping (stainless steel) directly before the gas analyser.

The membrane filter water stop protects the analyser in the event the upstream gas conditioner (e.g. cooler, peristaltic pump or gas filter) fails or is overloaded. Protection is implemented through a built-in semipermeable membrane, which separates the gas from condensation and dust. If this membrane is full, the gas flow is interrupted. Our upstream flow meters can be used to electrically output an alarm indicating the interruption.

The membranes in the PTFE version are not replaceable due to the economic design; on the stainless steel version they can be replaced in just a few simple steps. Simply remove the cover screws – the filter or the piping do not need to be removed. The membrane on the stainless steel version also has an oil repelling coating so it can be used for oily applications. The stainless steel filter is further designed as a bypass filter. The main gas flow and the condensate or oil it carries can therefore be discharged via the bypass. Targeted flow to the membranes yields a self-cleaning effect.

The filters are suitable for the following applications:

- Emission measurement with sulphuric fuels,
- Aerosols arising in waste incineration,
- Moist gasses, e.g. biogasses,
- Fine particle separation during processes, e.g. cement, glass, steel, paper industries,

Stainless steel version:

- Condensates containing hydrocarbons, e.g. oils and petrols in refinery process plants, engine test beds

Technical Data

Membrane filter water stop:	PTFE	Stainless steel
Max. Membrane water pressure:	2 bar	2 bar
Max. Operating pressure gas/oil:	2 bar gas	0.3 bar oil
Recommended max gas glow:	400 L/h (air)	120 L/h (air)
Pressure drop:	100 L/h: 10 mbar 400 L/h: 40 mbar	60 L/h: 20 mbar 120 L/h: 40 mbar
Membrane pore size:	< 0.1 µm	< 0.1 µm
Operating temperature:	0 °C...70 °C	-20 °C...170 °C
Effective filter area:	20 cm ²	25 cm ²
Housing volume:	5 ml	15 ml
Materials used:	Coated PTFE, PP	1.4571, Viton, coated PTFE
Dimensions		
Diameter:	Ø70 mm	Ø100 mm
Length/height:	approx. 120 mm	approx. 60 mm
Installation:	Tubing	Wall mounted
Gas connections:	NPT 1/8"–4/6 PVDF	IN: 1/4" NPT OUT: NPT 1/8"



Use in explosive areas (additional notices):

The membrane filter meet the fundamental safety requirements of Directive 2014/34/EU and are suitable for use in the areas specified below (see table). The membrane filters are not marked, as they do not have an innate ignition source and Directive 2014/34/EU therefore does not apply.

Version	Explosion classes		Operating temperature
	Internal	External	
PTFE	Zone 1	IIB	70 °C
	Zone 2	IIB	
Stainless steel	Zone 1	IIC	170 °C
	Zone 2	IIC	

Tab. 1: Provisions and limitations when used in Ex areas

DANGER

Impact



Strong blows to the housing can produce sparks, which can ignite an EX atmosphere.
Protect the equipment from external impact. Damaged housing parts must be replaced immediately.

DANGER

Dangerous electrostatic charge (explosion hazard)



Incendive electrostatic charges may occur when cleaning housing parts and decals (e.g. with a dry cloth or compressed air). The sparks this produces could ignite flammable, explosive atmospheres.
Always clean housing parts and decals **with a damp cloth!**
Metal housing parts must be earthed.

Ordering instructions

Item no.	Model
65 709 753	Membrane filter water stop with two female connectors, NPT 1/8" - 4/6 PVDF
65 709 754	Membrane filter water stop VA, external NPT 1/8" connectors
65 709 755	Replacement filter for membrane filter water stop VA
65 709 76	Membrane filter water stop with two connections, both sides 6 mm tube