



## Membrane filter water stop

The Water Stop fine mesh filter protects the gas analyser from liquids, aerosols and particles. The filter installs in the tubing (plastic version) or piping (stainless steel version) 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 Water Stop fine mesh filter protects the gas analyser from liquids, aerosols and particles. The filter installs in the tubing (plastic version) or piping (stainless steel version) directly before the gas analyser.

The Water Stop fine mesh filter 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 plastic 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

Water Stop fine mesh filter:	Plastic	Stainless steel
Max. Membrane water pressure:	0 - 29 psi	0 - 29 psi
Max. Operating pressure gas/oil:	0 - 29 psi (gas)	0 - 4 psi (oil) 0 - 725 psi (gas)
Recommended max gas flow:	0 - 6.6 lpm (air)	3 lpm (air)
Pressure drop:	1.6 lpm: approx. 0.15 psi 6.6 lpm: approx. 0.58 psi	1 lpm: approx. 0.29 psi 2 lpm: approx. 0.58 psi 3 lpm: approx. 0.87 psi
Membrane pore size:	< 0.1 µm	< 0.1 µm
Operating temperature:	32 °F...194 °F	-4 °F...374 °F
Effective filter area:	3.9 inch <sup>2</sup>	4.7 inch <sup>2</sup>
Housing volume:	0.30 cu. in.	0.92 cu. in.
Materials used:	PP, PVDF, PTFE	1.4571, FKM (Viton), PTFE
Dimensions		
Diameter:	Ø2.8"	Ø3.9"
Length/height:	4.7"	1.2"
Depth:		6.3" (incl. mounting bracket)
Installation:	Tubing	Wall mounted
Gas connections:	DN4/6 DN1/6"/1/4" Ø6 mm	Gas inlet 1/4" NPT Gas outlet 1/8" NPT Bypass 1/4" NPT



### 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	
Plastic	Zone 1	IIB	IIB	194 °F
	Zone 2	IIB	IIB	
Stainless steel	Zone 1	IIB	IIC	374 °F
	Zone 2	IIB	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
65709753	Water Stop fine mesh filter PP/PVDF/PTFE connections DN4/6
6570977	Water Stop fine mesh filter PP/PVDF/PTFE connections DN1/6"/1/4"
6570976	Water Stop fine mesh filter PP/PTFE connections Ø6 mm
65709754	Water Stop fine mesh filter 1.4571/FKM/PTFE connections internal thread 1/8" and 1/4" NPT
65709755	Replacement membranes for 1.4571 versions