

Combination Coalescer Membrane Filters

Features

Continuous coalescing of all liquid and the security of hydrophobic membrane protection in one unit

Less maintenance and downtime as the membrane is fully protected from solids and liquids

Fewer fittings required — reducing risk of leaks

More compact — no need for separate coalescers



MODEL A39/12

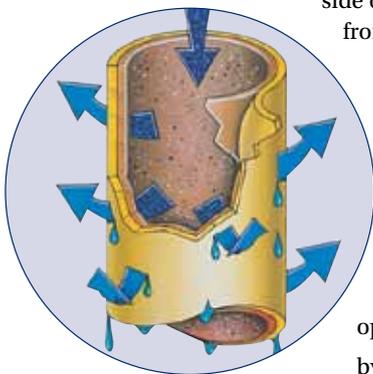


MODEL A98

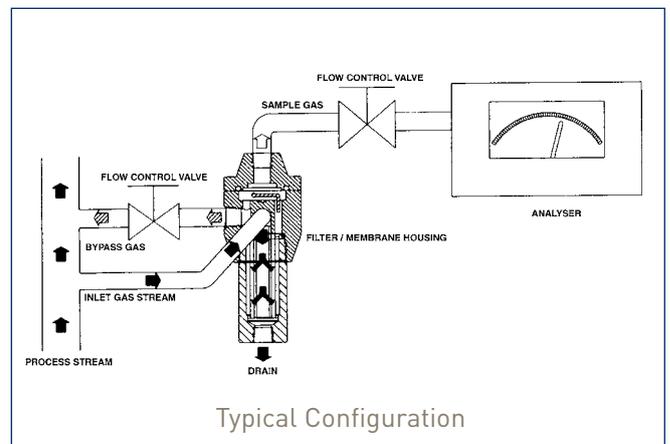
A39/12 & A98 Series Coalescer Membrane Combination Filters

The Balston Coalescer Membrane Combination Filter is designed to remove entrained liquid and particulate in gas samples for a wide variety of applications and thereby prevents contamination or damage to the analysers and sample system components. Typically located upstream of the analyser or component it is protecting; the Coalescer Membrane Combination provides protection even if other sample system components fail. The Coalescer Membrane combination offers the performance and protection of the Balston Membrane Filters, with the additional benefits of liquid coalescing and fine particle capture. There is no need for prefiltration, which places more volume in the sample system, requires more space for installation and has the potential for more areas to leak. The A98 Series and A39/12 Series consists of a housing with a porous membrane filter that is supported by a sintered porous disc located on the “outlet” side of the housing. Gas enters through the “inlet” port and is directed down through the coalescing filter. The coalescer traps all particulates and continuously drains liquid contaminants. The sample gas

then flows upward to the upstream side of the membrane and exits from the “outlet” port on the downstream side. Entrained liquid will not flow through the membrane and exits through the drain port on the downstream side of the coalescer.



For the membrane to operate correctly there must be by-pass flow.



Typical Configuration

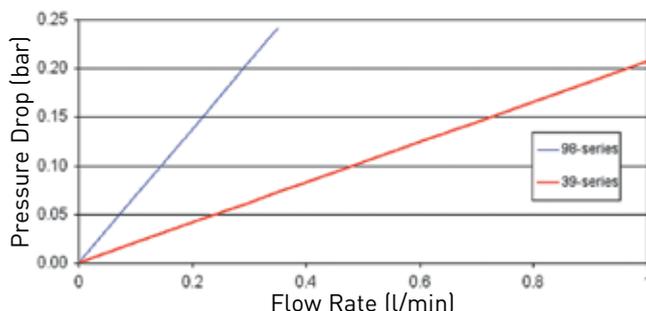
The Membrane

Microscopic pores contained within the PTFE membrane permit molecules of gas or vapour to flow through easily, allowing the composition of the sample gas to remain unchanged. Conversely, even the smallest liquid molecules remain trapped and are unable to flow through the membrane's small passages under normal operating conditions. This is due to the high surface tension, which causes liquid molecules to bind tightly together, to form a group of molecules, moving together, which is too large to fit through the pores of the membrane. The membrane is extremely inert and is recommended for most process liquid applications, with the exception of hydrofluoric acid. It is also recommended for use in systems designed for ppb, ppm and “percent level” component concentrations, as a result of its very low absorption characteristics. The membrane is strong and durable, but also very soft and pliable.

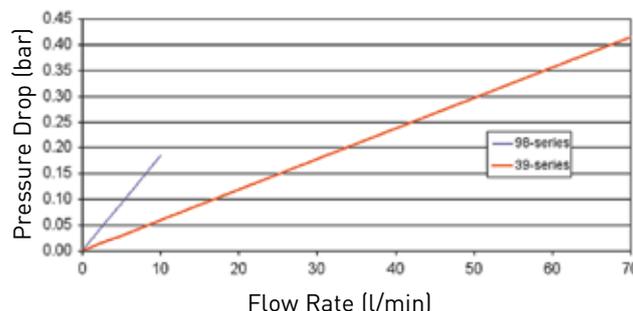
Parker's Coalescing Action

Combination Coalescer Membrane Filters

**Flow Rate Vs Pressure Drop
Standard Membrane**



**Flow Rate Vs Pressure Drop
High Flow Membrane**



Housing and Membrane Selection Guide

Model	A39-0	A39-2	A98-0	A98-2
Membrane Model	Standard ^[1]	High Flow ^[2]	Standard ^[1]	High Flow ^[2]
Maximum Recommended Flow Rate in l/min ^[3]	1.0	70	0.6	10
Normal Amount of Liquid Present in Gas ^[4]	Low	Low to Medium	Low to Medium	Low to Medium

Notes:

- Standard membrane is suitable for most liquids.
- High flow membrane is suitable for water, solutions consisting primarily of water, sulphuric acid, caustic, glycols, oily liquids and other high surface tension model liquids.
- Maximum recommended flow rate of gas through the membrane. Does not include the "by-pass" flow rate.
- Amount of liquid normally expected to be present in the sample gas: Low: aerosol or occasional droplets. Medium: continuous droplets. High: continuous flowing liquid.

Principal Specifications

Model	A39/12 Series	A98 Series
By-pass Ports	1/2" NPT	1/4" NPT
Sample Port	1/4" NPT	1/4" NPT
Materials of Construction		
Housing	316 Stainless Steel	316 Stainless Steel
O-rings	Viton (standard), Kalrez, Buna, EPDM (optional)	Viton (standard), Kalrez, Buna, EPDM (optional)
Maximum Operating Pressure	29 barg	69 barg
Maximum Temperature	100°C	100°C
Maximum Recommended Flow Rate		
Standard Membrane	1 l/min	0.6 l/min
High Flow Membrane	70 l/min	10 l/min
Typical Membrane Pressure Drop ^[1]		
Standard Membrane	0.07 barg per 250 cc/min, flow through membrane	0.07 barg per 100 cc/min, flow through membrane
High Flow Membrane	0.07 barg per 20 litres/min, flow through membrane	0.07 barg per 3.8 litres/min, flow through membrane
Outside Dimensions	84 x 51mm	50 x 50mm
Shipping Weight	1.1kg	1.8kg

Ordering Information

Filter Assembly A98/11-__Q-0 A98/11-__Q-2	Filter Assembly A39/12-__X-0, A39/12-__X-2
98011 5 ea. DQ Filters, Viton O-Rings and Membranes for A98-0	39014 5 ea. Viton O-Rings and Membranes for A39/12-0
98012 5 ea. BQ Filters, Viton O-Rings and Membranes for A98-2	39015 5 ea. Viton O-Rings and Membranes for A39/12-2
98013 5 ea. DQ Filters, Viton O-Rings and Membranes for A98-2	39002 5 ea. Membranes for A39/12-0
98010 5 ea. BQ Filters, Viton O-Rings and Membranes for A98-0	39020 5 ea. Membranes for A39/12-2
98002 5 ea. Membranes for A98-0	150-12-□ X 10 ea. Coalescing Filter Cartridges
98020 5 ea. Membranes for A98-2	
050-11-□ Q 10 ea. Coalescing Filter Cartridges	

Notes: 1. For Glass Bowl version order: A39/12G-Q-(0)-(2)

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