Coolant Particle Filter

Inline filtration for fuel-cell coolant loops

A stainless-steel screen filter fitted in the coolant line to take fine particles out of the loop before they reach the stack or the cooler. The 316L screen holds contamination down to 125 µm at a pressure drop of a few kPa, and the body is compatible with water-glycol coolant over −40 °C to +100 °C.



F1038 · Φ38 mm in-line body

Key features

- Working range −40 °C to +100 °C
- Large dirt-holding capacity, low pressure drop
- Stable over long cycles, long service life
- Compatible with ethylene-glycol heat transfer fluids
- Good physical and chemical resistance
- Simple to install in the line
- Removes fine particulates from the coolant loop

Specifications

Item	Specification
Media	Coolant — water or water-ethylene glycol mixture
Working temperature	−40 °C to +100 °C
Filter material	SUS316L corrosion-resistant stainless steel screen
Filtration accuracy	120 mesh (125 µm)
Pressure resistance	> 4 bar
Volume conductivity	< 5 µS/cm

Model selection

Model	Connection size	Flow range	Flow resistance
F1038	Inlet Φ38 mm / outlet Φ38 mm	0 – 150 L/min	< 5 kPa @ 100 L/min, 30 °C
F1050-1	Inlet Φ50 mm / outlet Φ50 mm	0 – 300 L/min	< 11 kPa @ 200 L/min, 30 °C

Where it is fitted

On the coolant return line, upstream of the pump or the stack inlet, so debris is caught before it reaches the cooler channels.

How to size it

Select on flow range first, then confirm the port size against the hose bore. Φ38 covers 0–150 L/min, Φ50 covers 0–300 L/min.

Check the drop

Flow resistance is quoted at 30 °C at the stated flow. Keep it inside the pressure budget of the loop at start of life and when loaded.

Note
Port size, screen mesh and end connections are confirmed against the drawing at order. Specifications are subject to change without notice.