PALL Microelectronics

Mini Gaskleen®
Hi-Flow Filter Assembly

Description

The Mini Gaskleen Hi-Flow filter assembly is designed for ultra-high-purity point-of-use gas filtration applications. The unique filter design allows significantly higher flow capacity than previously offered in this envelope.

- 316L stainless steel electropolished housing
- All-fluoropolymer element
- Wide range of chemical compatibility
- High temperature and pressure capabilities
- Compact size for ease of installation
- 100% integrity tested
- Cleanroom manufactured and packaged
- 100% helium leak tested
- Housing meets or exceeds VIM VAR material specifications

Specifications

Materials
- Medium: PTFE
- Core: PFA
- O-ring: FEP encapsulated fluorocarbon
- Electropolished 316L stainless steel housing material
- VAR PLUS housing meets or exceeds typical VIM VAR specifications
- Internal surface finish
  ≤ 0.13 µm / 5 µin R_a (gasket and butt weld fittings)
  ≤ 0.15 µm / 20 µin R_a (compression fittings)
- Cr:Fe (1:1) chromium enriched internal surface chemistry

Removal Rating
- ≥ 3 nm

Preconditioned Options
3102 Series
- < 10 ppb moisture contribution (qualified per SEMASPEC test method #90120397B-STD)
- < 10 ppb THC contribution (qualified per SEMASPEC test method #90120396B-STD)
- < 10 ppb O_2 contribution (qualified per SEMASPEC test method #90120398B-STD)
- No particle contribution above background ≤ 1 particle/(m^3 or ft^3)

Filter Area
- 13.5 cm^2/0.015 ft^2

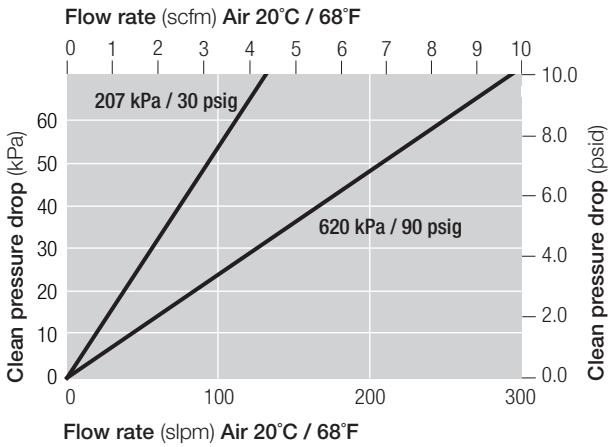
Connections
- ¼ in gasket seal (VCR[1] or compatible)
- ¼ in butt weld (0.035" wall)
- ¼ in compression seal (Swagelok[1] or compatible)

Operating Conditions
- Maximum operating pressure: 20.7 MPa @ 121°C / 3000 psig @ 250°F
- Maximum forward differential pressure: 0.55 MPa @ 21°C / 80 psid @ 70°F
- Maximum reverse differential pressure: 0.34 MPa @ 21°C / 50 psid @ 70°F
- EU Pressure Equipment Directive: Assemblies have been evaluated and designed using SEP per the European Union's Pressure Equipment Directive 97/23/EC and are not CE marked

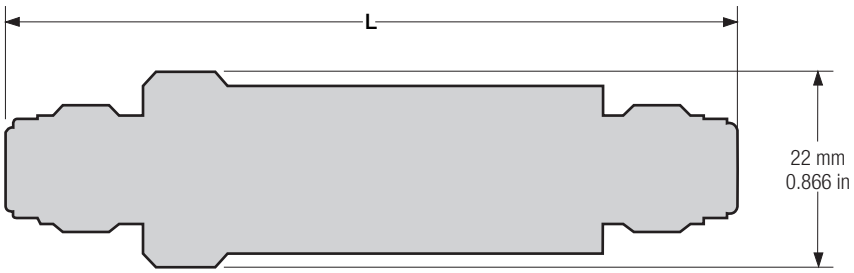
Leak Rating
- 100% helium leak tested to 10^{-9} atm·cm^3/s
- Design validated to 10^{-11} atm·cm^3/s

[1] VCR and Swagelok are registered trademarks of Swagelok Company.

Pressure Drop vs. Gas Flow Rate



Dimensions



Part Numbers / Ordering Information

Part Number	Description	Length (L) (mm / in)	Preconditioned
GLFPF3101VMM4	¼ in Gasket seal (VCR or compatible) male/male	84 / 3.31	No
GLFPF3101BW4	¼ in Butt weld, 0.89 mm / 0.035 in wall	90 / 3.54	No
GLFPF3101SM4	¼ in Compression seal, male inlet/outlet (Swagelok compatible)	73 / 2.88	No
GLFPF3101VFM4	¼ in Gasket seal (VCR or compatible) female inlet/male outlet	88 / 3.47	No
GLFPF3101VMF4	¼ in Gasket seal Outlet (VCR or compatible) male inlet/female outlet	100 / 3.94	No
GLFPF3102VMM4	¼ in Gasket seal (VCR or compatible) male/male	84 / 3.31	Yes
GLFPF3111VMM4	¼ in Gasket seal (VCR or compatible) male/male	127 / 5.00	No

Unit conversion: 1 bar = 100 kilopascals

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