

Wafergard® III NF Micro In-line Gas Filters

Nickel filter membrane offers superior corrosion resistance



Wafergard® III nickel filters are the cleanest, most efficient all-metal filters available. The patented nickel filter membrane offers superior corrosion resistance and excellent compatibility with inert and reactive gases.

A state-of-the-art housing assembly eliminates outgassing by minimizing weld area. The all-metal construction is ideal for high-temperature and dynamic-pressure applications. Its compact size and flexible choice of fittings provide ultimate design efficiency and minimize engineering costs.

Ideal for high-temperature and dynamic-pressure applications

APPLICATIONS

- Ultrapure gas lines
- High-temperature applications
- New fab construction
- Dynamic-pressure applications
- Inert and reactive gases

FEATURES & BENEFITS

All-metal construction	Is ideal for high-temperature and dynamic-pressure applications.
Nickel filter membrane	Provides superior corrosion resistance and excellent compatibility with inert and reactive gases
State-of-the-art housing assembly	Eliminates outgassing by minimizing weld area

SPECIFICATIONS

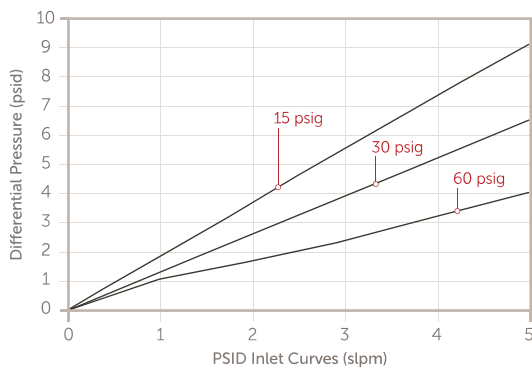
Materials	Filter element	Patented, sintered nickel membrane filter
	Housing	Electropolished VAR 316L stainless steel housing
Downstream cleanliness	Particles*	Less than 0.03 particles/liter (<1 particle/ft ³) greater than 0.01 μm
	Volatile**	Volatile outgassing of H ₂ O, O ₂ , and THC is below detectable limits (by RGA and FID at room temperature)
Removal rating	≥0.0015 μm	
Surface finish interior	≤5 μin Ra	
Helium leak rating	Qualified	2x10 ⁻¹⁰ atm cc/sec.
	Tested	1x10 ⁻⁹ atm cc/sec.
Operating conditions	Maximum allowable working pressure (design pressure): 207 bar (3000 psi) @ 100°C (212°F)	
	Maximum forward/reverse differential pressure: 35 bar (500 psid)	
	Maximum operating temperature: Inert gases 400°C (752°F) @ 35 bar (500 psi); Corrosive and reactive gases: 50°C (122°F) @ 70 bar (1000 psi)	
Warranty	5 year	
Particle retention	Greater than 99.9999999% (9 LRV) removal of all particles (referenced at the most penetrating particle size)	
Flow rating	Refer to performance data	

*Particle cleanliness qualified following SEMASPEC Test Method for Particle Shredding (#93021511A-STD)

**Volatile cleanliness qualified following SEMASPEC Test Method for THC Contribution (#90120396B-STD), Moisture Contribution (#90120397B-STD), and Oxygen Contribution (#90120398B-STD).

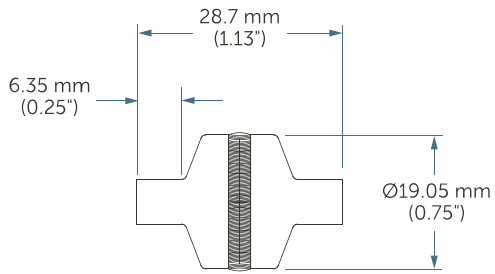
PERFORMANCE DATA

Wafergard III NF Micro Filters

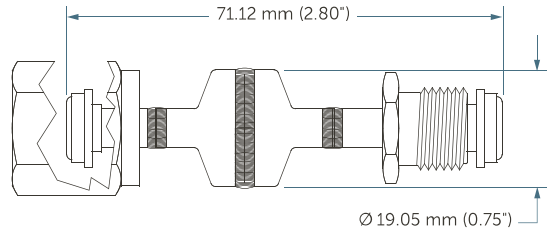


DIMENSIONS

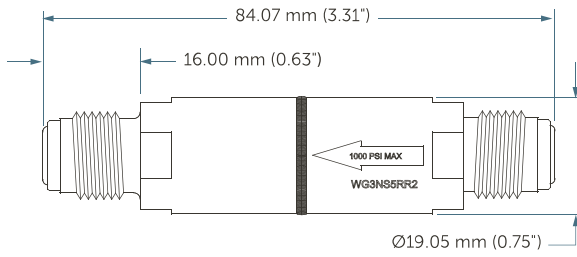
WG3N SM JJ2 – ¼" Butt Tube Inlet/Outlet



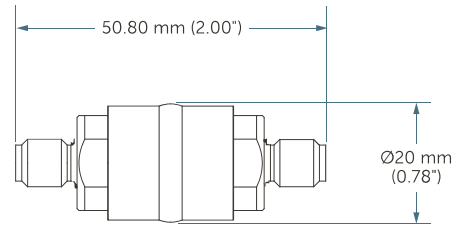
**WG3N SM RF2 – ¼" Male Gasket Seal Inlet;
¼" Female Gasket Seal Outlet**



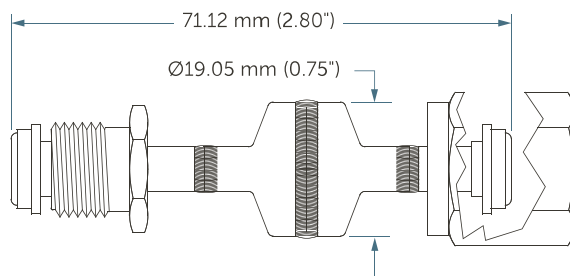
WG3N S5 RR2 – ¼" Male Gasket Seal Inlet/Outlet



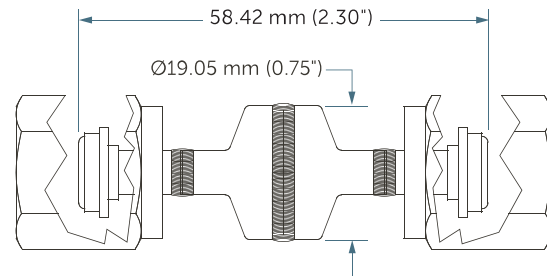
WG3L005NS2S1 – ⅛" Swagelok Compression Fitting



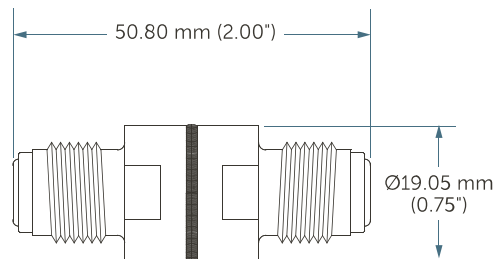
**WG3N SM FR2 – ¼" Female Gasket Seal Inlet;
¼" Male Gasket Seal Outlet**



**WG3N SM FF2 – ¼" Female Gasket Seal
Inlet/Outlet**



WG3N SM SL2 – ¼" Male Gasket Seal Inlet/Outlet



ORDERING INFORMATION

PART NUMBER	FITTING SIZE AND TYPE	LENGTH
WG3NS5RR2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet	84.1 mm (3.31")
WG3NSMFF2	1/4" Gasket seal (compatible with VCR fitting) female inlet/outlet	58.4 mm (2.30")
WG3NSMFR2	1/4" Polarized gasket seal (compatible with VCR fitting) female inlet/male outlet	71.1 mm (2.80")
WG3NSMJJ2	1/4" Butt weld inlet/outlet	28.4 mm (1.12")
WG3NSMSL2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet	50.8 mm (2.00")

FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit entegris.com and select the [Contact Us](#) link to find the customer service center nearest you.

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