



WAFERGARD® III NF MICRO IN-LINE GAS FILTERS

*Superior particulate filtration for
ultrapure gas system filtration*

Overview

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.

**Not recommended for use with CO, O₃ and low-level hydride dopant gases.*



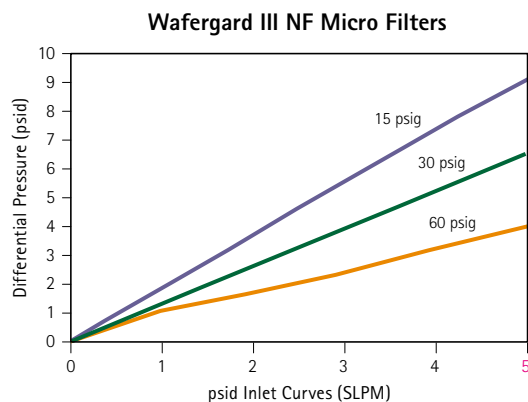
Applications

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

Key Features

- Cleanest, most efficient all-metal filter available
- Superior particulate filtration for ultrapure applications

Performance Data



Specifications

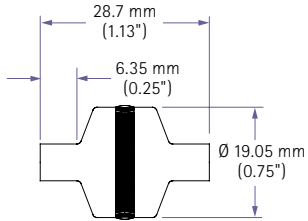
Materials:	Filter element	Patented, sintered nickel membrane filter
	Housing	Electropolished F20 stainless steel housing
Downstream cleanliness:	Particles ¹	Less than 0.03 particles/liter (<1 particle/ft ³) greater than 0.01 µm
	Volatiles ²	Volatile outgassing of H ₂ O, O ₂ and THC is below detectable limits (by RGA and FID at room temperature)
Removal rating:	≥0.003 µm	
Surface finish interior:	≤5 µin Ra	
Helium leak rating	Qualified	2 × 10 ⁻¹⁰ atm-cc/sec
	Tested	1 × 10 ⁻⁹ atm-cc/sec
Operating conditions:	Maximum inlet pressure	207 bar (3000 psi) @100°C
	Maximum forward/reverse differential pressure	35 bar (500 psid)
	Maximum operating temperature	Inert gases 400°C @ 35 bar (500 psi) Corrosive and reactive gases 50°C @ 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:	See performance data	

¹ Particle cleanliness qualified following SEMASPEC Test Method for Particle Shedding (#93021511A-STD)

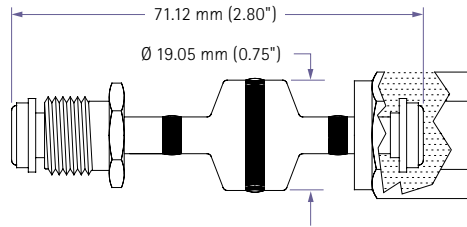
² Volatile cleanliness qualified following SEMASPEC Test Methods for: THC Contribution (#90120396B-STD), Moisture Contribution (#90120397B-STD) and Oxygen Contribution (#90120398B-STD).

Dimensions

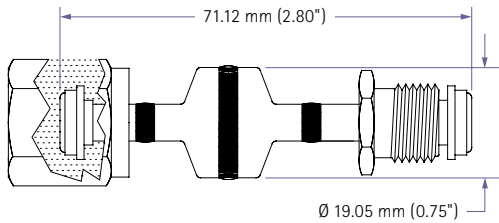
WG3N SM JJ2 – 1/4" Butt Tube Inlet/Outlet



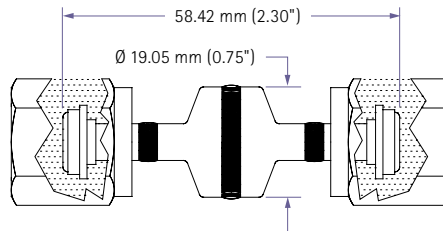
WG3N SM FR2 – 1/4" Female Gasket Seal Inlet; 1/4" Male Gasket Seal Outlet



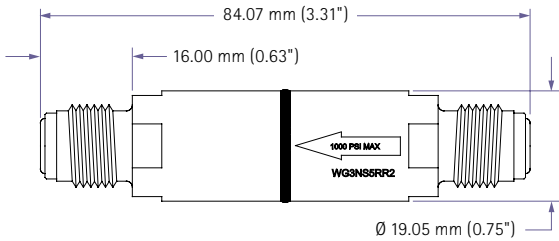
WG3N SM RF2 – 1/4" Male Gasket Seal Inlet; 1/4" Female Gasket Seal Outlet



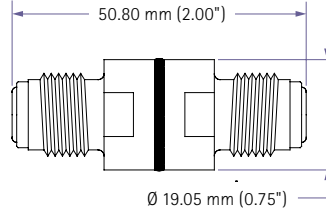
WG3N SM FF2 – 1/4" Female Gasket Seal Inlet/Outlet



WG3N S5 RR2 – 1/4" Male Gasket Seal Inlet/Outlet



WG3N SM SL2 – 1/4" Male Gasket Seal Inlet/Outlet



Ordering Information

Part Number	Fitting Options	Overall Length
WG3N SM FF2	Wafergard III NF Micro 1/4" gasket seal (compatible with VCR® fitting) female inlet/outlet	58.4 mm (2.30")
WG3N SM RF2	Wafergard III NF Micro 1/4" polarized gasket seal (compatible with VCR fitting) male inlet/female outlet	71.1 mm (2.80")
WG3N SM FR2	Wafergard III NF Micro 1/4" polarized gasket seal (compatible with VCR fitting) female inlet/male outlet	71.1 mm (2.80")
WG3N S5 RR2	Wafergard III NF Micro 1/4" gasket seal (compatible with VCR fitting) male inlet/outlet	84.1 mm (3.31")
WG3N SM SL2	Wafergard III NF Micro 1/4" gasket seal (compatible with VCR fitting) male inlet/outlet	50.8 mm (2.00")
WG3N SM JJ2	Wafergard III NF Micro 1/4" butt weld inlet/outlet	28.4 mm (1.12")

For More Information

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit www.entegris.com and select the Customer Service link for the center nearest you.

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