

Wafergard® III NF-30 In-line Gas Filters

The 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 and potential contamination 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 offers design efficiency at minimal cost.

APPLICATIONS

- Bulk gas delivery
 - Photolithography
 - Deposition
 - Dry etch
 - Ion implantation
- Note: Not recommended for use with CO, O₃, and low level hydride dopant gases.

FEATURES & BENEFITS

All-metal construction	Provides clean, efficient filtration performance
Patented nickel filter membrane	Offers superior corrosion resistance and excellent chemical compatibility
Innovative housing design	Helps eliminate outgassing and reduces drydown time



Offers excellent compatibility with inert and reactive gases

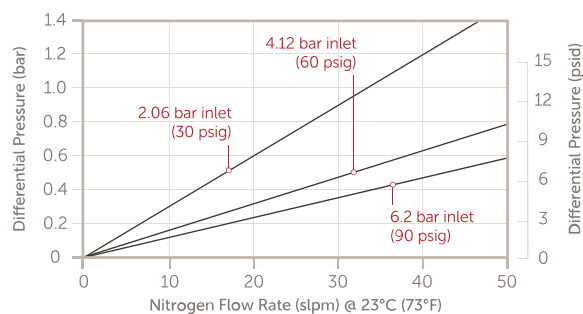
SPECIFICATIONS

Materials	Filter membrane	Patented, sintered nickel
	Housing	Electropolished F20 stainless steel
Downstream cleanliness	Particles [*]	<0.03 particles/Liter (<1 particle/ft ³) >0.01 µm
	Volatiles ^{**}	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 rate	Qualified	2x10 ⁻¹⁰ atm cc/sec
	Tested	1x10 ⁻⁹ atm cc/sec
Maximum operating conditions	Maximum inlet pressure:	70 bar (1000 psi) @ 100°C (212°F)
	Maximum forward/reverse differential pressure:	10 bar (150 psid)
Maximum operating temperature	Inert gases	400°C (752°F) at 35 bar (500 psi)
	Corrosive and reactive gases	50°C (122°F) at 70 bar (1000 psi)
Warranty	5 year	
Particle retention	Greater than 99.9999999% (9 LRV) removal of all particles at 30 slpm	
	Greater than 99.9999% removal of all particles at 75 slpm (referenced at the most penetrating particle size)	
Flow rate	Refer to flow curve	

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

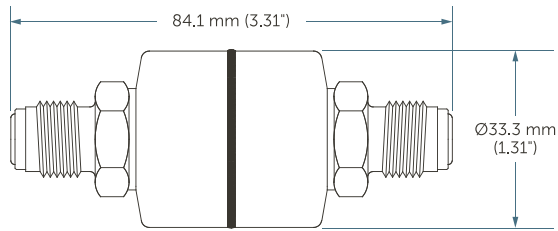
**Volatile cleanliness qualified following SEMASPEC Test Methods for: THC Contribution (#90120396B-STD), Moisture Contribution (#90120397B-STD), Oxygen Contribution (#90120398B-STD)

PERFORMANCE DATA

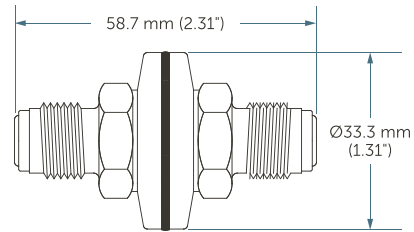


DIMENSIONS

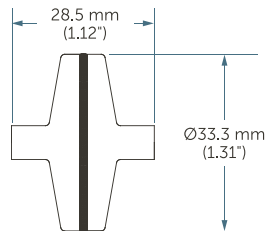
WG3NS6RR2: 1/4" Gasket Seal, Male



WG3NS6SL2: 1/4" Gasket Seal (Short), Male



WG3NS3JJ2: 1/4" Butt Weld



ORDERING INFORMATION

PART NUMBER	FITTING SIZE AND TYPE	LENGTH
WG3NS3FF2	1/4" Gasket seal (compatible with VCR fitting) female inlet/outlet	58.4 mm (2.30")
WG3NS3JJ2	1/4" Butt weld tube	28.4 mm (1.12")
WG3NS3RF2	1/4" Polarized gasket seal (compatible with VCR fitting) male inlet/female outlet	71.1 mm (2.80")
WG3NS6RR2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet	84.1 mm (3.31")
WG3NS6SL2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet, short Version	58.7 mm (2.31")

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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