

Wafergard® III NF Mini/Mini XL In- line Gas Filters

The nickel filter membrane offers superior particulate filtration in ultrapure gas systems

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.

APPLICATIONS

- Ultrapure gas lines
 - High-temperature and dynamic-pressure applications
 - Inert and reactive gases
 - Gas cabinets and panels
 - Valve manifold boxes
 - Hookup
- Note: Not recommended for use with CO, O₃, and low-level hydride dopant gases



Ideal for high-temperature and dynamic-pressure applications

FEATURES & BENEFITS

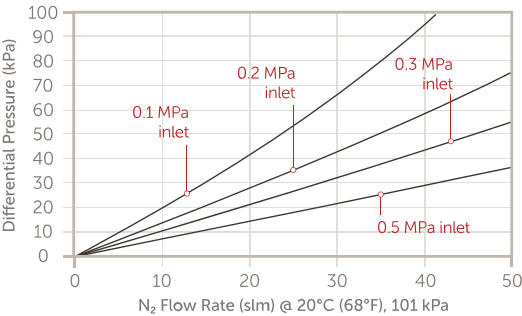
Nickel filter membrane	Provides good chemical compatibility with most semiconductor gases, which prevents the use of incompatible filters and gases
Special cleaning and high-temperature baking	Achieve superior initial cleanliness, speeding up gas delivery start-up
High flow rate/low pressure drop characteristics	Suitable for use with low vapor pressure gases
High particle removal efficiency	Contributes to yield improvement

SPECIFICATIONS

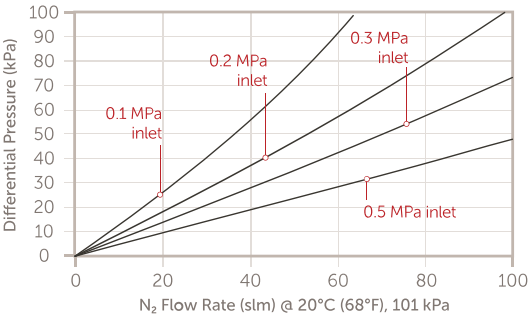
Materials	Filter membrane	Nickel
	Housing, end cap	Low sulfur 316L stainless steel
Initial downstream cleanliness	≤ 0.03 particles/liter (≤ 1 particle/ft ³) ≥ 0.01 μm	
Removal rating	≥ 0.0015 μm	
Particle retention	Greater than 99.9999999% (9 LRV) removal of all particles at 60 slm (Mini) and 120 slm (Mini XL): referenced at the most penetrating particle size	
Surface finish interior	≤ 5 $\mu\text{in Ra}$	
Helium leak rating	Tested	9×10^{-10} Pa m ³ /sec (9×10^{-9} atm cc/sec)
Maximum conditions	Maximum operating pressure:	16.2 MPa (162 bar, 2346 psid) at 20°C (68°F)
	Maximum forward/reverse differential pressure:	3.3 MPa (33 bar, 485 psid) @RT
	Maximum design temperature:	Inert gases: 400°C (725°F)
Flow rating	Refer to performance data	

PERFORMANCE DATA

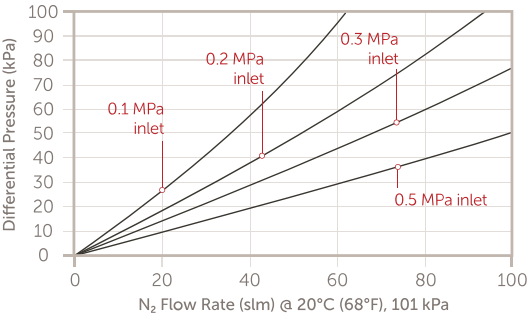
Wafergard III NF Mini 1/4" VCR
WG3NS1RR2



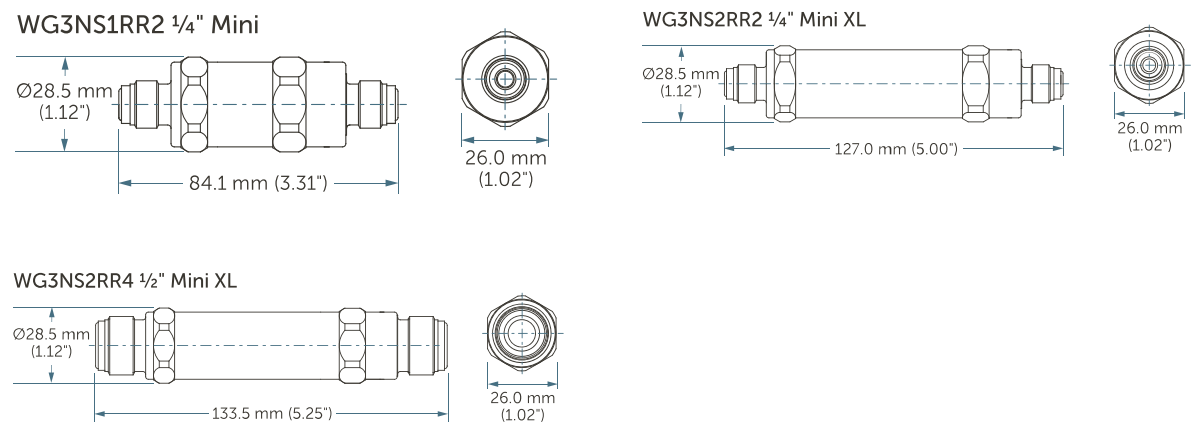
Wafergard III NF Mini XL 1/2" VCR
WG3NS2RR4



Wafergard III NF Mini XL 1/4" VCR
WG3NS2RR2



DIMENSIONS



ORDERING INFORMATION

PART NUMBER	FITTING SIZE AND TYPE	LENGTH
WG3NS1RR2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet	84.1 mm (3.31")
WG3NS2RR2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet	127.0 mm (5.00")
WG3NS2RR4	1/2" Gasket seal (compatible with VCR fitting) male inlet/outlet	133.3 mm (5.25")

FOR MORE INFORMATION

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

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