



LUMINOUSGARD® LCD 2000 GAS PURIFIER

For hydrocarbons, acids and amines
removal in lithography applications

Overview

Luminousgard® point-of-use, in-line gas purifiers effectively remove hydrocarbon in gases, as well as organic matter, basic and acid impurities and particles. These activated and precision gas filters are especially effective for purifying purge gases in lithography applications in the LCD manufacturing process.

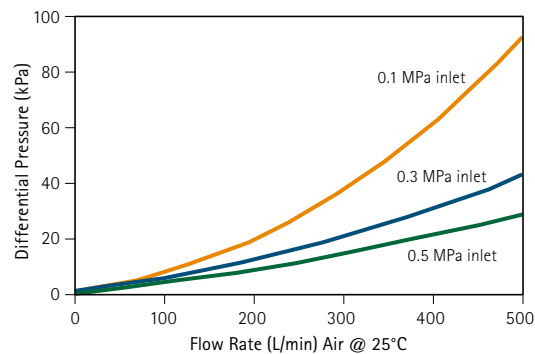
Applications

- Clean dry air (CDA)
- Lens purge gas line for exposure equipment
- Purge gas line for laser generator
- Inert gas supply line

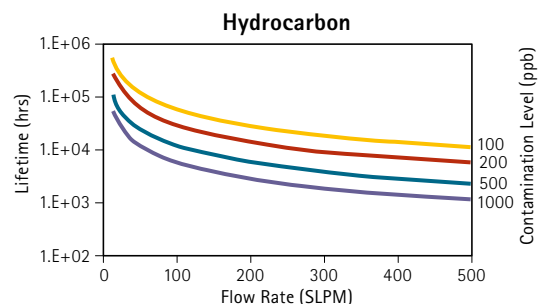
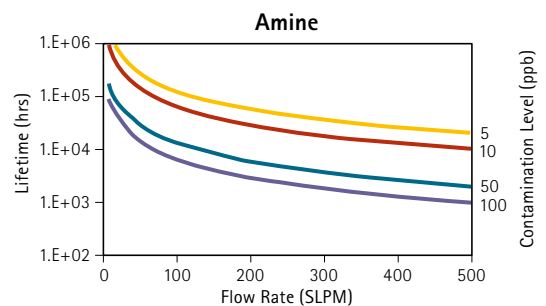
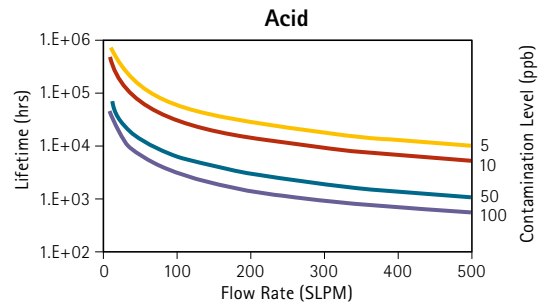
Features and Benefits

- Effectively removes the following impurities in purge gas: CDA, N₂, Ar and He
- Maintains high retention in the following volatile impurities:
 - Hydrocarbons (>C₆)
 - Acids: SO₂, SO₃, NO₂, HCl, HF, CH₃COOH, H₂S
 - Amines: NH₃, CH₃NH₂, (CH₃)₃N
- Excellent initial cleanliness
 - Less than 1 ppb of hydrocarbons (>C₆) degassing at 1 SLPM
- Effectively removes particles in gas stream

Performance Data



Lifetime Curves



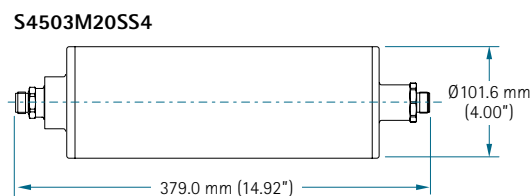
Note: Purifier lifetime is dependent upon operating conditions.

Specifications

Materials:	Adsorbent	Ultrapure activated carbon
	Filter	PTFE/PFA
	Housing	Electropolished 316L/304 stainless steel
Retention:	Gaseous organic	>90% (>C ₆ number of hydrocarbon)
	Gaseous acid	>90% including SO ₂ , SO ₃ , NO ₂ , HCl, H ₂ S
	Gaseous basic	>90% including NH ₃ , CH ₃ NH ₂ , (CH ₃) ₃ N
	Particles	>99.9999999% removal of all particles >0.003 μm
Downstream cleanliness:	Volatiles	<1 ppb (hydrocarbon >C ₆) @ 1 SLPM
	Particles	<0.03 particles/L >0.01 μm @ 30 SLPM
Connections:	Inlet/outlet	12.7 mm compression seal (1/2" Swagelok® compatible)
Attachment:	Swagelok type	Cap for 1/2" Swagelok attached to inlet/outlet nut and ferrules for 1/2" Swagelok, 2 set bundled
Operating conditions:	Gas type	Inert gases*
	Recommended flow rate	<500 NL/min
	Maximum operating pressure	0.9 MPa (9 bar/130.5 PSIG)
	Maximum forward differential pressure	0.7 MPa (7 bar/101.5 PSID)
	Maximum reverse differential pressure	0.25 MPa (2.5 bar/36.3 PSID)
	Maximum operating temperature	50°C (122°F) – inert gas
Product weight:		4.17 kg (9.19 lb)

* Please contact Entegris for other gases.

Dimensions



Ordering Information

Part Number	Description
S4503M20SS4	Luminousgard LCD 2000 gas purifier

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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