# GateKeeper® GPU 70 4R Gas Purifiers

Superior purity control

Entegris' GateKeeper® GPU gas purifiers are designed to improve purity consistency, lifetime and final purity. Leveraging its expertise in material science, Entegris has developed a new generation of purification products that deliver unsurpassed value and performance. The model 70 is designed for peak flow rates up to 5 slpm.

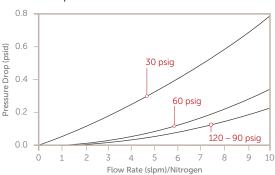


## **FEATURES & BENEFITS**

Process control and protection	Purity control to ppt levels  Low pressure drop across the purifier
	CE certified to the Pressure Equipment Directive (PED) and manufactured in an ISO® 9001:2000 facility
Cost effective	Regenerable – eliminates disposal issues and costs
	Long lifetime – improved cost of ownership
Safe and simple to use	Use ambient temperature purification – no heat or power required to operate
	Insensitive to orientation (horizontal/vertical)

### **PERFORMANCE DATA**

### Pressure Drop vs. Gas Flow Rate\*



\*The flow rate displayed on this graph may exceed maximum flow rate specification of the purifier model referenced in this data sheet. Please refer to maximum flow rate in the specifications section of this data sheet.

Note: Pressure drop may vary depending on media type.

## **SPECIFICATIONS**

Materials of construction (housing)	316L stainless steel, electropolished
Particle filtration type	Wafergard® – 316L stainless steel membrane
Particle retention	Up to 6 LRV* for particles larger than 0.003 μm
Filtration removal rating	≥0.003 µm
Fitting size and type	¹/₄" gasket seal**
Fitting configuration	Male-to-male
Operating pressure	1.01 barg – 96.5 barg (0 psig – 1400 psig)
Operating temperature	0°-65°C (32°-149°F)
Maximum flow rate	5 slpm
Leak rating	$1 \times 10^{-9}$ atm cc/sec
Dimensions	114 mm (4.5") L × Ø38 mm (1.5")
Approximate weight	0.3 kg (0.7 lb)

<sup>\*</sup>Referenced as most penetration particle size.

<sup>\*\*</sup>Also referred to as VCR® or face seal.

## **AVAILABLE MEDIA**

Media	Gases purified	Contaminants removed	Outlet purity	Nominal flow rate <sup>3</sup>	
НХ	H <sub>2</sub> , N <sub>2</sub> , Noble gases, H <sub>2</sub> /N <sub>2</sub> , H <sub>2</sub> /Noble gases	H <sub>2</sub> O, O <sub>2</sub> , CO, CO <sub>2</sub>	<100 ppt in $H_2$ and $N_2$	2.9 slpm	
IX	N₂, Noble gases	H <sub>2</sub> O, O <sub>2</sub> , CO, CO <sub>2</sub> , H <sub>2</sub>	<100 ppt in Ar and N <sub>2</sub>	1.4 slpm	
	Freon <sup>1</sup> 13, 14, 23, 41, 116, 218	H <sub>2</sub> O, O <sub>2</sub>			
NX	O <sub>2</sub>	CO <sub>2</sub>	<1 ppb	4 slpm	
		H <sub>2</sub> O	<1 ppb		
OP	CDA, N₂, Noble gases	H <sub>2</sub> O	<100 ppt in N <sub>2</sub>	3 slpm	
		Condensable organics (as Toluene)	<1 ppt		
		Non-condensable organics <sup>2</sup> (as Butane)	<5 ppt		
		Refractory compounds (as HMDSO)	<1 ppt		
		Volatile acids (as SO <sub>2</sub> )	<1 ppt		
		Volatile bases (as NH <sub>3</sub> )	<10 ppt		
TX CDA, N <sub>2</sub> , Noble gases, CO <sub>2</sub> , NH <sub>3</sub>	Condensable organics (as Toluene)	<1 ppt	4 slpm <sup>4</sup>		
	Non-condensable organics <sup>2</sup> (as Butane)	<5 ppt			
		Refractory compounds (as HMDSO)	<1 ppt		
WX	CDA, H <sub>2</sub> , N <sub>2</sub> , Noble gases, CO <sub>2</sub> , NH <sub>3</sub> , AsH <sub>4</sub> , PH <sub>4</sub> ,	H <sub>2</sub> O	<100 ppt in N <sub>2</sub>	12 slpm <sup>5</sup>	
	GeH <sub>4</sub> , SiH <sub>4</sub>			<12 ppb in NH <sub>3</sub>	

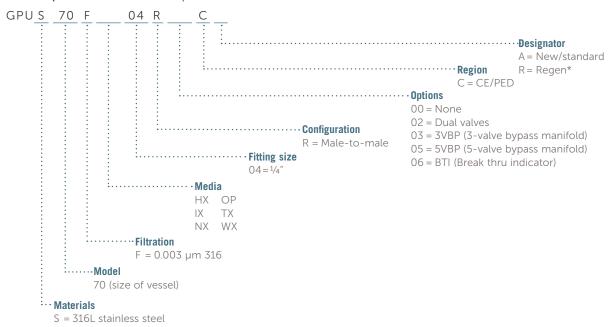
 $<sup>^{1}</sup>$  Removal of  $H_{2}O$  and  $O_{2}$  only.

<sup>&</sup>lt;sup>2</sup> Consult Entegris with specific non-condensable contaminants. <sup>3</sup> With a 1 ppm  $H_2O$  impurity inlet challenge

<sup>&</sup>lt;sup>4</sup> With a 1 ppm Toluene impurity inlet challenge over 1 year <sup>5</sup> Lifetime will exceed 1 year at its maximum flow rate

### ORDERING INFORMATION

## GateKeeper 70 4R Gas Purifiers: part number



<sup>\*</sup>Contact Entegris to determine if the purifier is designed for regeneration.

## 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.

## TERMS AND CONDITIONS OF SALE

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