

# PUREGUARD™

The pure and simple choice

# purifiers

## PureGuard™ Catalytic Purifiers for Inert Gases & Hydrogen



The Catalytic Purifier series purifies all inert gases and hydrogen using high surface area adsorbant. The compact design offers long lifetimes while delivering gas, helping protect against upsets and insuring that you will always get the purest results. And, these purifiers are regenerable, eliminating disposal issues and driving down the cost of ownership.

The Catalytic Purifier series, together with the Palladium Purifier series and the Getter Purifier series, all are a part of the Pureguard family of purifiers, which offers the End user and OEM a complete palette of gas purification solutions to handle the most demanding of requirements.

### Outstanding Performance Standards

Johnson Matthey, a global technology leader for over 40 years in gas purification, presents catalytic purifier technology for inert gases and hydrogen. They are designed to deliver maximum performance removing impurities to less than one part per billion. APIMS tested, these units purify and filter your gas all in one unit while operating at room temperature.

### Applications

- Optoelectronics
- MOCVD epi
- Graphic coating processes
- Gas analyzers
- Bulk systems
- Welding
- Process line-purging
- ICP-MS
- SiGe epi
- Atomic Layer Deposition (ALD)



**Johnson Matthey**  
*Gas Purification Technology*

# PureGuard™ Catalytic Purifiers for Inert Gases & Hydrogen

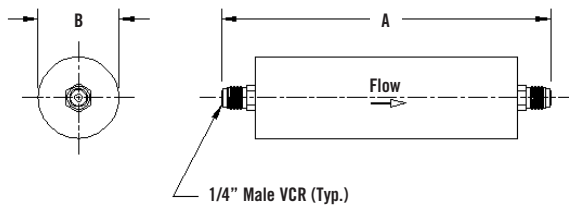
Nitrogen,  
Argon,  
Helium &  
Hydrogen

## Model Numbers and Dimensions

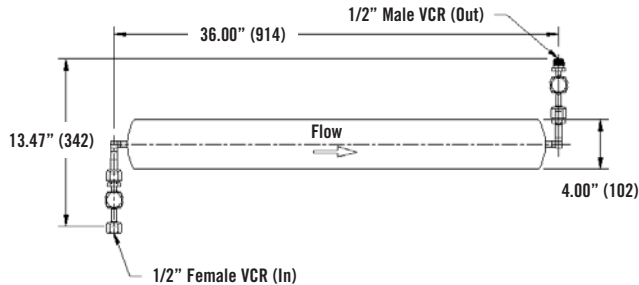
Model	Maximum Flow (slpm)	Average Flow (slpm)	Connection Size (MVCR)	A inches (mm)	B inches (mm)	Valves	Filter
IG-35XL	1	0.6	1/4"	3.31 (50)	1.5 (38)	Opt	Std
IG-70XL	3	1.2	1/4"	4.50 (114)	1.5 (38)	Opt	Std
IG-500XL	60	12	1/4"	7.94 (202)	3.0 (76)	Opt	Std
IG-2500XL	300	60	1/4"	17.3 (439)	4.0 (102)	Opt	Std
IG-5000XL	500	175	1/2"	38.52 (978)	4.0 (102)	Std	Opt
IG-10MXL	1000	300	1/2"	29.90 (759)	6.0 (152)	Std	Opt

**NOTE:** For H<sub>2</sub>, all part numbers are HIG-XL (example: HIG-35XL)

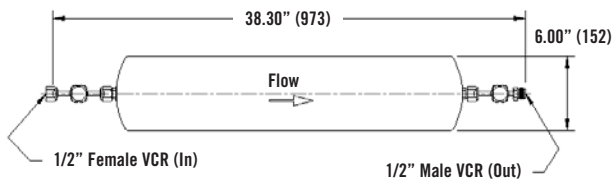
## Catalytic Purifier Dimensional Drawing



## Model IG-5000XL (with inlet and outlet valves)



## Model IG-10MXL (with inlet and outlet valves)



## Benefits

- Integrated purifier and filter solution
- Extends the life and reliability of gas systems and components
- Enhances sensitivity and performance of analytical equipment
- Protects against breakthrough in bulk gas purifier or impurity spike from liquid storage tanks
- Consistent performance to insure reproducible purity levels
- Manufactured by Johnson Matthey, a global technology leader in business for 190 years and a company that has met your gas purification needs for over 40 years

## Specifications

- <1 ppb outlet impurities
- Impurities removed O<sub>2</sub>, H<sub>2</sub>, H<sub>2</sub>O, CO, CO<sub>2</sub> and non-methane hydrocarbons (NMHC)
- Lifetime is 1 year at average flow with 1 ppm inlet moisture level
- Maximum operating pressure 250 psig
- <10 ra electropolished material
- 100% orbitally welded design
- Helium leak tested to 1 x 10<sup>-9</sup> atm cc/sec
- Operates at room temperature
- Particulate removal: 0.003µm metal filter (optional on 5000XL and 10MXL)
- Manual isolation valves standard on IG-5000XL and IG-10MXL (optional on other sizes)
- Regeneration available through Johnson Matthey



Model 35XL



Model 70XL



**Johnson Matthey**  
Gas Purification Technology

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**Principal Locations:**  
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France, Germany, South Korea,  
Taiwan, China, Hong Kong,  
Japan, Singapore