Ultra High Purity Compact Gas Purifier

- Use point impurity such as water, oxygen and hydrocarbon included in inactive or special gas removed down to 1PPB or less under certain conditions.
- SUS316L used as standard material for rough filtration media not generating particle by corrosion or chemical reaction.
- Water included in high corrosion special gas such as HBr and HCI removed up to 100PPB (detection limit of analysis equipment) or less under certain conditions.
- Same small size and light weight as GP-05 filter with 84mm face-to-face dimension and 120g in weight.
- Usable until complete lifetime by reactivation process by baking at 350°C to 400°C depending on gas type.

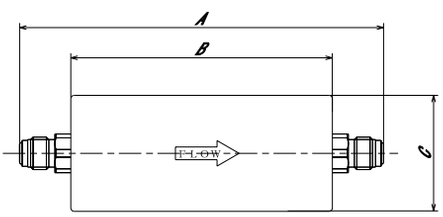
GP/GPF SERIES

Specification

Refining Performance	Each impurity: max. 1PPB or less ,Total of impurity on outlet side: max. 10PPB or less (depending on the condition)
Material	Housing: SUS316L Electrochemical polishing R max 0.7μm or less, Filter media: SUS316L, Refining agent: metal getter etc.
Flow Rate Range	0.5LPM to 20LPM (varies depending on model / pressure condition)
Max. Operating Pressure	0.97MPa（140.65PSIG）
Operating Temperature	Room temperature or 350 to 400°C (varies depending on the application)
External Leakage	2×10^{-11}Pa·m³/sec or less
Joint	1/4",3/8" VCR®,Swagelok®

Dimensions

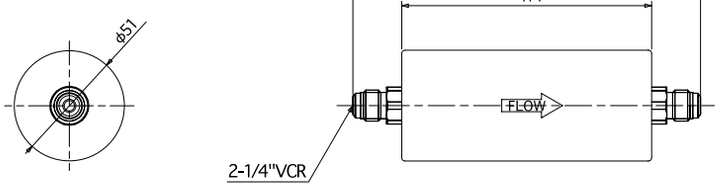
Model	A(mm)	B(mm)	C(mm)	Recommended Flow Rate (L/min)	Lifetime (Flow Rate)※
GP-05	84	38	25	0.1 to 0.5	Approximately one year (at 0.2LPM)
GP-1	84	38	38	0.1 to 1.0	Approximately one year (at 0.5LPM)
GP-2	122	76	38	0.2 to 2.0	Approximately one year (at 1LPM)
GP-5	160	114	51	1 to 5	Approximately one year (at 3LPM)
GP-10	224	178	51	2 to 10	Approximately one year (at 5LPM)
GP-20	317	272	63	5 to 20	Approximately one year (at 10LPM)



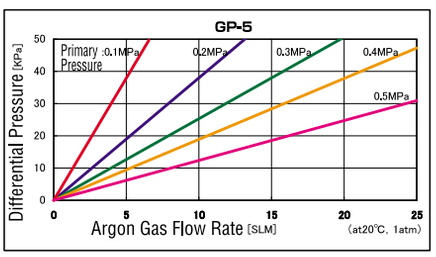
※Breakthrough above is when total impurity from inlet port (primary side) is assumed to be 10PPM, and reactivation process is required during this period.

Dimensional Outline Drawings

GP/GPF-5-**-**-02VR



Flow Rate Characteristics



Guaranteed Refining Value

Specification	Gas to be Refined	Refined Impurity		Guaranteed Refining Value
Inactive Gas	He,Ne,Ar,Kr,Xe	H_2O,O_2,CO_2		1PPB or less (at room temperature)
		H_2O,O_2,CO,CO_2,N_2,THC		1PPB or less (at heating)
		Total of impurity on outlet (secondary) side		10PPB or less (8LOGS)
For Nitrogen Gas	N_2	H_2O,O_2,CO_2		1PPB or less (at room temperature)
		H_2O,O_2,CO,CO_2,THC		1PPB or less (at heating)
For Hydrogen Gas	H_2,Ar/H_2,N_2/H_2	H_2O,O_2,CO_2		1PPB or less (at room temperature)
		H_2O,O_2,CO,CO_2,N_2,THC		1PPB or less (at heating)
For Hydroid Gas For Freon Gas	$SiH_4,Si_2H_6,SiH_2Cl_2,AsH_3,PH_3,NH_3,B_2H_6$ $H_2S,H_2Se,GeH_4,Ge_2H_6,CH_4,CF_4,CCl_4,SF_6$	H_2O,O_2,CO_2		10PPB or less (at room temperature)
For Oxygen Gas (For oxygen gas purifier, single type and dual type are prepared.)	O_2,Air	Single	H_2O	100PPB or less (at room temperature)
			CO_2	10PPB or less (at room temperature)
		dual	H_2O	100PPB or less (at heating)
			H_2,CO,CO_2	10PPB or less (at heating)
For Corrosive Gas	HBr,HCl,BCl_3,BF_3,Cl_2	H_2O		100PPB or less (at room temperature)

※For purity analysis of corrosive gas, FT-IR was used (detection limit 100PPB).

※Guaranteed values above are when total of impurity on inlet side is 10PPM or less.

How to Order

Built-in Particle Filtration Element Filtration Accuracy	Recommended Flow Rate	*1 Type of Used Gas	Purge Gas for Reactivation Process	Bore Diameter	Type of Joint
GP	2	H_2	Ar	02	VR

*1. In order to prevent reaction that involves heat generation, please select the type of gas correctly.

GP : 5μm or more GPF : 0.01μm or more (99.9999%)	05 : 0.5LPM 1 : 1LPM 2 : 2LPM	5 : 5LPM 10 : 10LPM 20 : 20LPM	H_2,HBr HCl,SiH_4 other	N_2 Ar other	02 : 1/4" 03 : 3/8"	VR : VCR® SW : Swagelok®

※Specification is subject to change without notice.