

# Low Pressure Loss PTFE Gas Filter



## High Efficiency Filtration

- Stable efficiency filtration with two-layer filtration film made of PTFE causing little stretches by aging or vibration. 0.01 $\mu$ m particle capture test conducted by nucleus particle counter for all products.

## Low Pressure Loss

- High flow rate and low pressure loss by PTFE's two-layer structure and high hole rate. Much lower pressure loss especially for TF-4 series by large effective filtration area from film laminate structure.

## High Corrosion Resistance

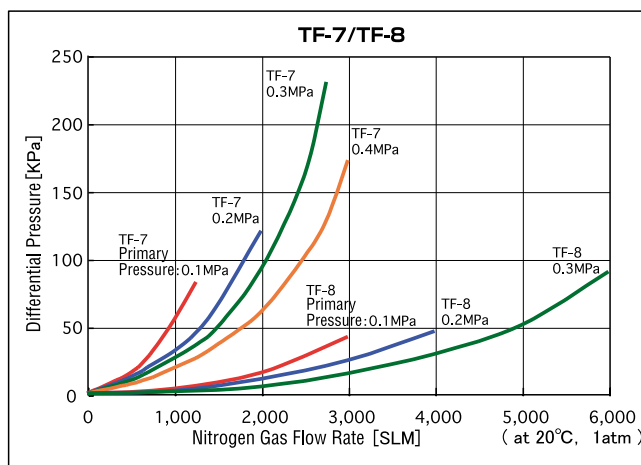
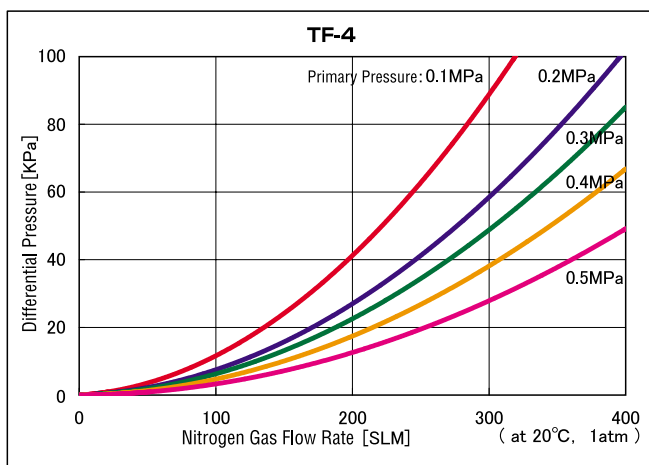
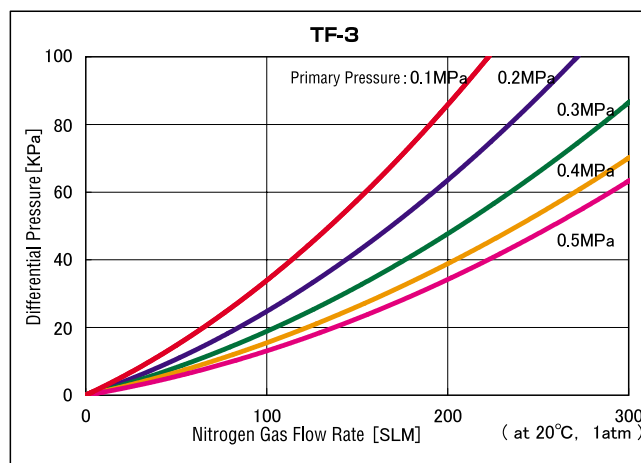
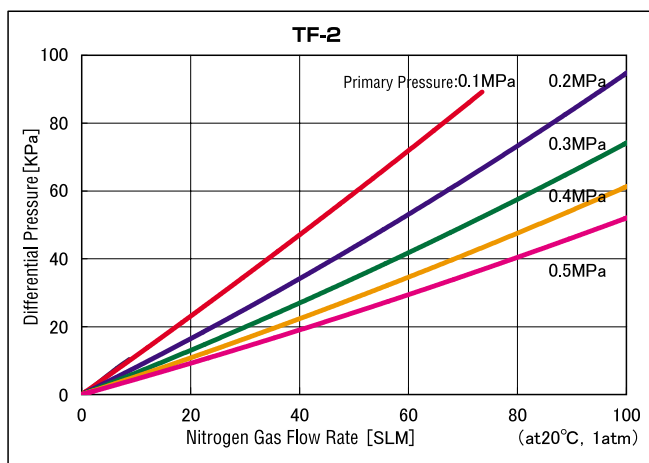
- Fluorine resin used for element film, element support, O-ring etc., while SUS316L used for housing and every gas contacting part polished to R max 0.5 $\mu$ m or less and passivation process.

## Specification

Filtration Accuracy	0.01 $\mu$ m
Recommended Flow Rate	40 to 300L/min (refer to flow rate characteristic curve for each model)
Max. Operating Pressure	0.98MPa (142PSIG) at 20°C    0.94MPa (136PSIG) at 120°C
Max. Allowable Differential Pressure	0.5MPa (72.5PSIG) at 20°C
Back Pressure Resistance	0.07MPa (10.15PSIG) at 20°C
Max. Operating Temperature	120°C
External Leakage	2 $\times$ 10 <sup>-11</sup> Pa $\cdot$ m <sup>3</sup> /sec or less
Materials	Housing: SUS316L    Roughness: Rmax0.5 $\mu$ m or less Element/O-ring: PTFE    Element support: PFA/ECTFE (TF-4 only) Element: PTFE    O-ring: Viton    Element support: P.P (TF-7,8only)
Joint	1/4", 3/8", 1/2", 3/4" (TF-7,8 only)    VCR®, Swagelok®, Straight tube, and others

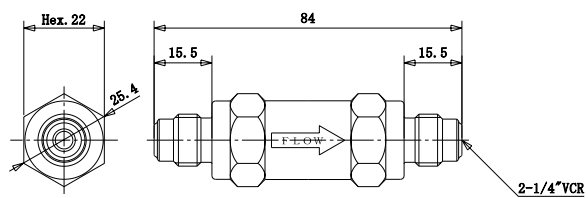
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## Flow Rate Characteristics

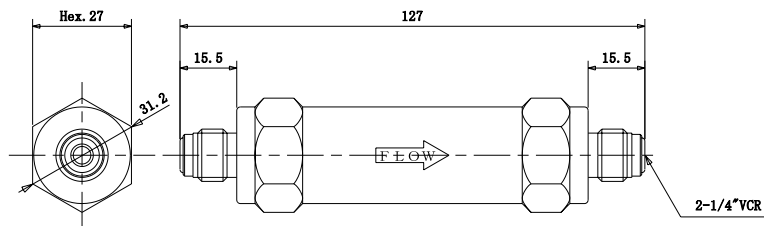


## Dimensional Outline Drawings

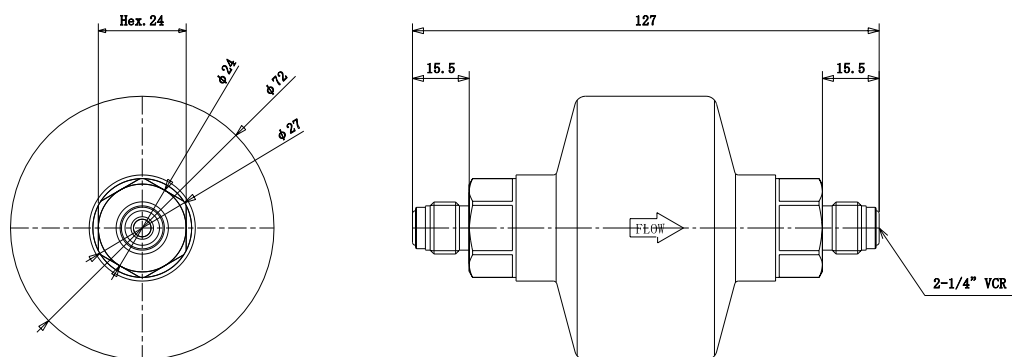
TF-2-02VR·P



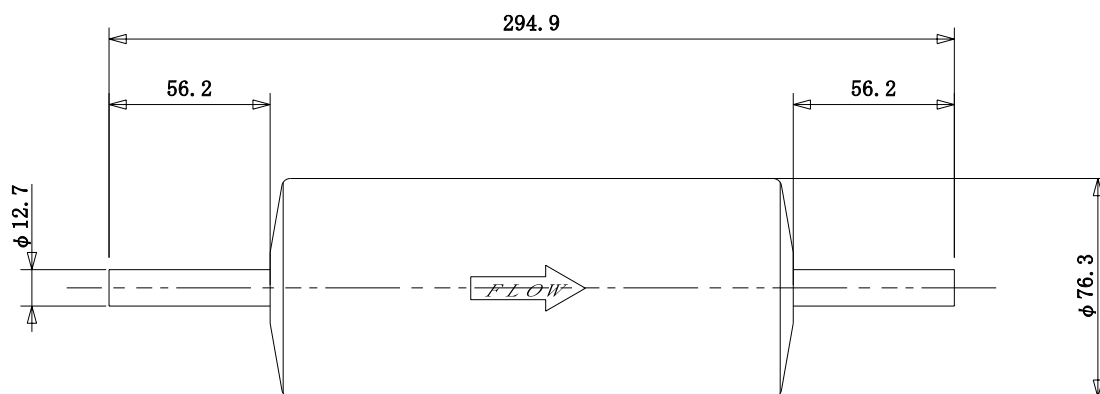
TF-3-02VR·P



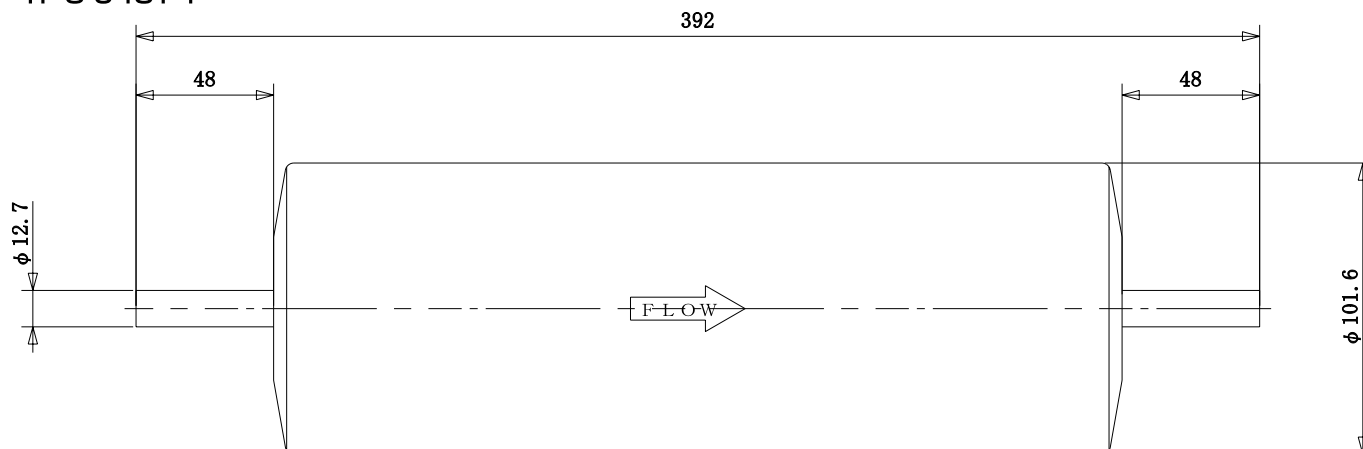
TF-4-02VR·P



TF-7-04ST·P



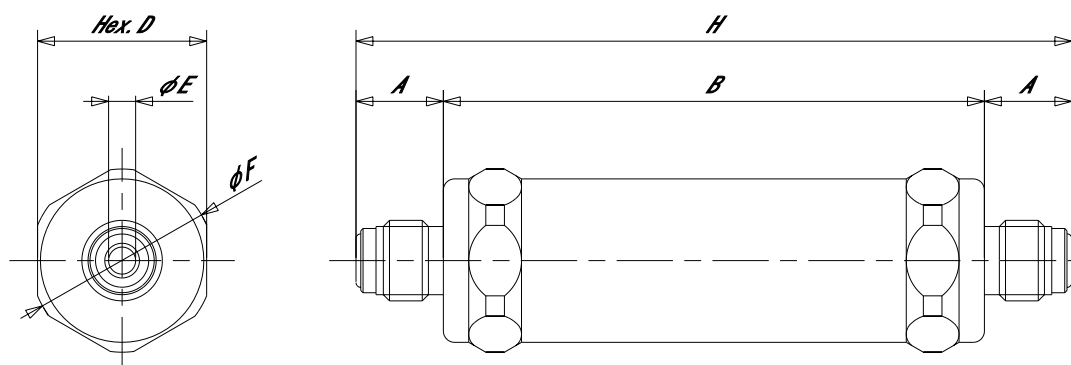
TF-8-04ST·P



## Dimensions

Model	A(mm)	B(mm)	D(mm)	E(inch)	F(mm)	H(mm)
TF-2-02VR・P	15.5	53.0	Hex.22	1/4	φ25.4	84.0
TF-2-02SW・P	10.0	53.0	Hex.22	1/4	φ25.4	73.0
TF-3-02VR・P	15.5	96.0	Hex.27	1/4	φ31.2	127.0
TF-3-02SW・P	10.0	96.0	Hex.27	1/4	φ31.2	116.0
TF-3-03VR・P	19.0	96.0	Hex.27	3/8	φ31.2	134.0
TF-3-03SW・P	12.0	96.0	Hex.27	3/8	φ31.2	120.0
TF-4-02VR・P	15.5	70.4	Hex.24	1/4	φ72.0	127.0
TF-4-02SW・P	10.0	67.4	Hex.24	1/4	φ72.0	113.0
TF-4-03VR・P	19.0	63.4	Hex.24	3/8	φ72.0	127.0
TF-4-03SW・P	12.0	63.4	Hex.24	3/8	φ72.0	113.0
TF-7-04ST・P	56.2	182.5	—	1/2	φ76.3	294.9
TF-8-04ST・P	48.0	296.0	—	1/2	φ101.6	392.0

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## How to Order

Type      Bore Diameter      Type of Joint

**TF - 2 - 02 VR ・ P**

Indication of Flow Rate

2 : 40SLPM  
3 : 150SLPM  
4 : 300SLPM  
7 : 1,500SLPM  
8 : 5,000SLPM

02 : 1/4"  
03 : 3/8"  
04 : 1/2"  
06 : 3/4"  
※Type 2 is 1/4" only.

VR : VCR®  
SW : Swagelok®  
ST : Straight Tube  
For other joints, please contact us.

※Specification is subject to change without notice.