

<b>Analytical Filters Engineering KFT</b> e-mail: <a href="mailto:admin@analytical-filters.com">admin@analytical-filters.com</a> EU- VAT: 32722053	<b>Datasheet MaestroGuard™ Filter</b> Type MCF-series	Date: 12/01/2025 Approved: WH File: DS-MCF-Series-V01
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## Membrane separator—Coalescing Filter MCF-100-316L-220

### Product Description

The **MaestroGuard™ Analytical Gas Filter** is specifically designed for critical gas analysis applications. It ensures reliable filtration to protect sensitive analytical equipment from contaminants, enhancing accuracy and longevity. This filter is suitable for explosive, corrosive, and inert gas environments, meeting the requirements of industrial gas preparation and analysis systems

### Key Features

- **High Filtration Efficiency:** Holds back water, liquid hydrocarbons, acids, alkalis, glycols, and ultra-fine particles
- **Robust Construction:** Made from **316L stainless steel** for durability and resistance to corrosive gases
- **Compact Design:** Optimized size to fit into limited installation spaces.
- **MaestroGuard™ Membrane Filter Unit:** Ensures excellent chemical resistance and a long service life.
- **Maximum Operating Pressure:** Suitable for high-pressure service up to **220 bar** (depending on sealing element).
- **Temperature Range:** Operates up to **180°C**, depending on sealing material.
- **Easy Maintenance:** Quick assembly and disassembly for membrane replacement and cleaning, with no need to disconnect tubing.

**Optional:** repealing treatment and embrittlement treatment to prevent possible hydrogen diffusion and material brittleness..

### Technical Specifications

Parameter	Specifications
Housing Material	316L Stainless Steel 1.4404
Filter Material	MaestroGuard™ Membrane and Microfiber Coalescing Element
Porengröße	< 0,1µm
Gas Flow Rate	160L/h air @ 30mbar pressure drop
Bypass flow Rate	Up to 300l/h
Pressure Range	Up to 220 bar*
Temperature Limit	−20°C up to 180°C*
Connections	NPT female
Housing Type	2 part non welded
Applications	Gas Analysis: Explosive, Corrosive, and Inert Gases, including H <sub>2</sub>

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### Applications

- Gas preparation for analyzers measuring impurities (e.g., sulfur compounds, CO, CO<sub>2</sub>, NO)
- Analytical systems measuring gas properties (dew point, calorific value)
- Laboratory and industrial gas systems for sensitive equipment
- Hydrogen production and related applications

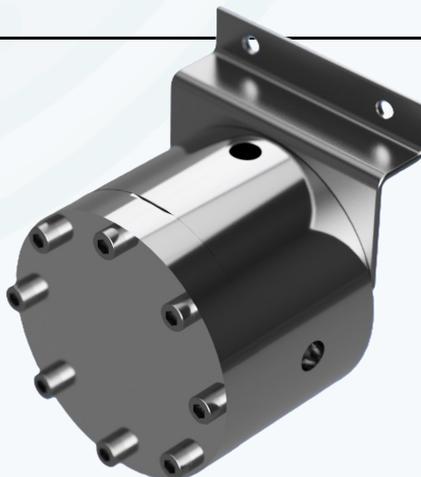
### Benefits

- **Enhanced Protection:** Prolongs the life of analyzers and ensures consistent measurement accuracy.
- **Reliable Filtration:** Removes contaminants that could otherwise damage downstream equipment.
- **Customizable:** Available in multiple configurations for specific gas types and conditions.
- **User-Friendly:** Simplified installation and membrane replacement process.

### Ordering Information

Order Number	Description
MCF-100-316L-100	MaestroGuard™ Gas Filter, Water and Oil repealent membrane 0,1µm, 100 bar, O-ring FKM
MCF-100-316L-100-FFKM	MaestroGuard™ Gas Filter, Water and Oil repealent membrane 0,1µm, 100 bar, O-ring FFKM
MCF-100-316L-100-PTFE	MaestroGuard™ Gas Filter, Water and Oil repealent membrane 0,1µm, 100 bar, O-ring PTFE
<b>Option</b>	
MBT-100-SS	Mounting Bracket in Stainless Steel 316L
<b>Spare Parts</b>	
SET-MCO-100-0,1-FKM	Service kit including Membrane, Microfibre Element, Support Pad, 2 x O-ring FKM
SET-MCO-100-0,1-FFKM	Service kit including Membrane, Microfibre Element, Support Pad, 2 x O-ring FFKM
SET-MCO-100-0,1-PTFE	Service kit including Membrane, Microfibre Element, Support Pad, 2 x O-ring PTFE
SS-100-316L	Sainless steel support screen, 316L

Custom configurations are available upon request.



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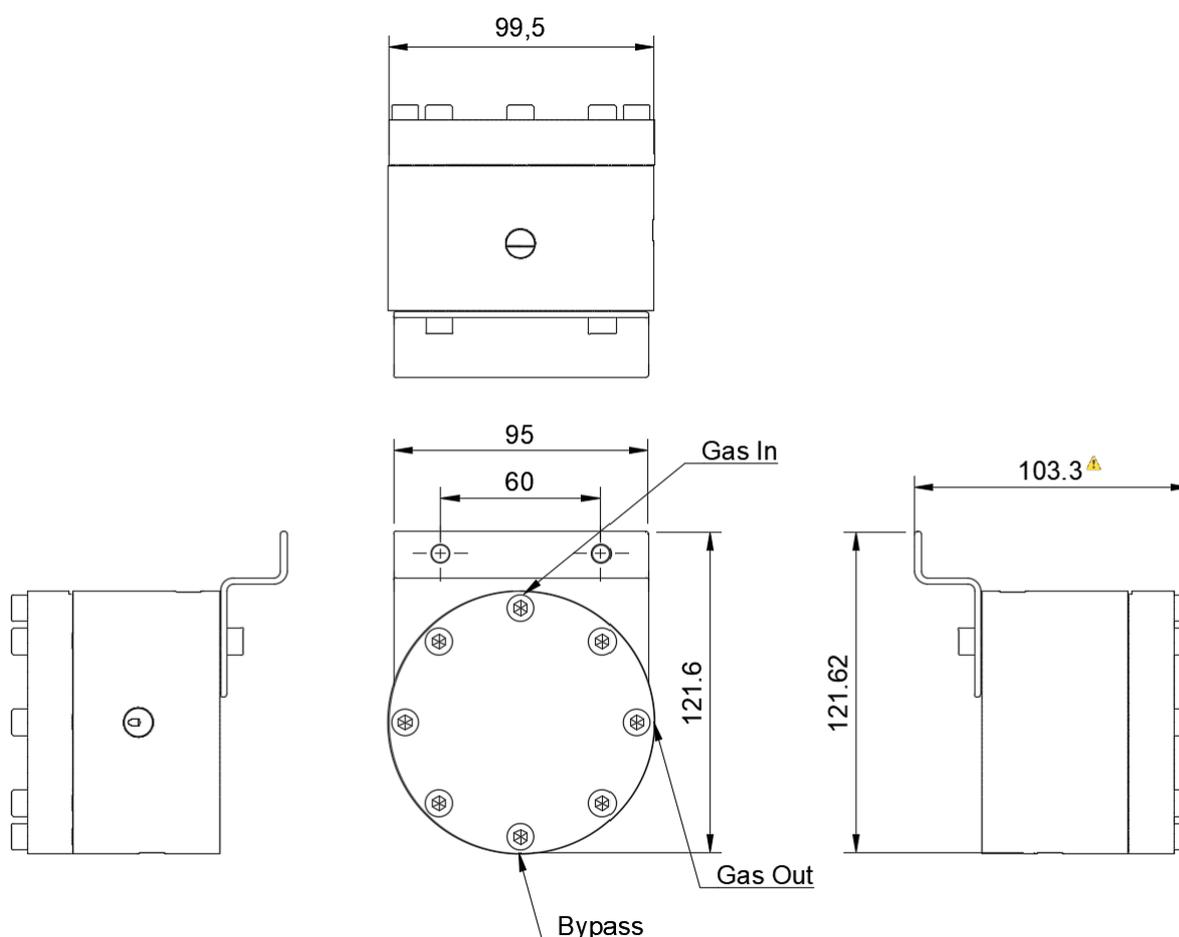
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### Dimensions:



### Contact Information

For inquiries and orders, contact us at:

**Analytical Filters Engineering KFT**

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