

## Active Carbon Filters MS12N-LFX – Inch Series



Active carbon filters remove liquid and gaseous oil particles as well as odor and taste from compressed air. Pre-filtration with a grade of 0.01 micron is required.

- Pneumatic connection: 1 NPT, 1¼ NPT, 1½ NPT, 2 NPT
- Supply pressure 0 ... 294 psi
- Flow rate: 169.4 ... 211.8 scfm

| Product Range Overview |                              |            |                                   |
|------------------------|------------------------------|------------|-----------------------------------|
| Type                   | Pneumatic connections        | Bowl guard | Reverse flow                      |
|                        | Port plate                   | Metal bowl | Flow direction from right to left |
| <b>MS12N</b>           | <b>AG...</b>                 | <b>U</b>   | <b>Z</b>                          |
| LFX                    | 1 NPT, 1¼ NPT, 1½ NPT, 2 NPT | ■          | ■                                 |

### Features

- Removal of liquid and gaseous oil particles from compressed air using active carbon
- Eliminates odors and vapors
- Prefiltration with micro filter MS-LFM-A, filtration grade 0.01 µm, is required.

### Contents

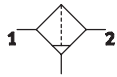
|                      |        |
|----------------------|--------|
| Technical Data       | ➔ 1162 |
| Dimensional Drawings | ➔ 1164 |
| Ordering Data        | ➔ 1164 |
| Accessories          | ➔ 1166 |

➔ [www.festo.com/catalog/ms12n-lfx](http://www.festo.com/catalog/ms12n-lfx)

# Active Carbon Filters MS12N-LFX – Inch Series

## Technical Data

### ISO Symbol



| General Technical Data                  |                         |        |        |       |
|---|-------------------------|--------|--------|-------|
| Pneumatic connection 1, 2 <sup>1)</sup> | 1 NPT                   | 1¼ NPT | 1½ NPT | 2 NPT |
| Air purity class at the output          | 1.7.1 to DIN ISO 8573-1 |        |        |       |
| Supply pressure [psi]                   | 0 ... 294               |        |        |       |

1) Dependent on port plate selected, must be ordered separately as an accessory → 1167

| Standard Nominal Flow Rate $q_{nN^2}$ [scfm] |       |        |        |       |
|--|-------|--------|--------|-------|
| Pneumatic connection 1, 2                    | 1 NPT | 1¼ NPT | 1½ NPT | 2 NPT |
| In main flow direction 1 → 2                 | 169.4 | 176.5  | 194.2  | 211.8 |

2) Dependent on port plate selected, must be ordered separately as an accessory → 1167  
Measured at  $p_1 = 88$  psi and  $\Delta p = 1.0$  psi

| Operating and Environmental Conditions |  |
|--|--|
| Operating medium                       | Compressed air, filtered, unlubricated, filtration grade 0.01 µm |
| Bowl guard                             | Metal bowl   |
| Ambient temperature [°F]               | 14 ... 140   |
| Temperature of medium [°F]             | 41 ... 86  |
| Storage temperature [°F]               | 14 ... 140   |
| Assembly position                      | Vertical ±5°   |
| Corrosion resistance CRC <sup>3)</sup> | 2  |

3) Corrosion resistance class 2 according to Festo standard 940 070  
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

| Weights [lb]    |       |
|-----------------|-------|
| With metal bowl | 14.00 |

- Filter cartridges → 1169
- For spare parts go to: [www.festo.com/en/spare\\_parts\\_service](http://www.festo.com/en/spare_parts_service)

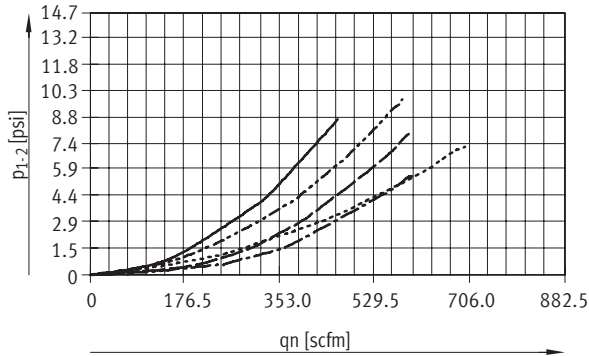
# Active Carbon Filters MS12N-LFX – Inch Series

Technical Data

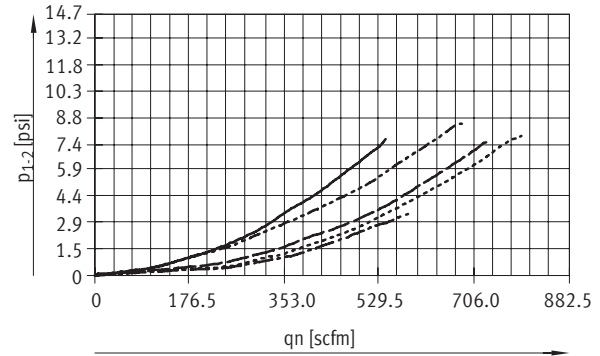


## Standard Flow Rate $q_n$ as a Function of the Differential Pressure $p_{1-2}$

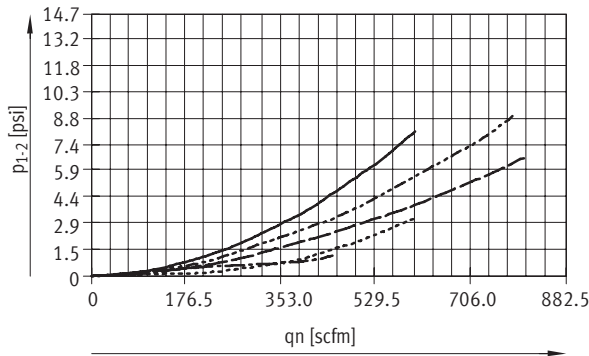
With port plate MS12-AGF, Pneumatic connection 1 NPT



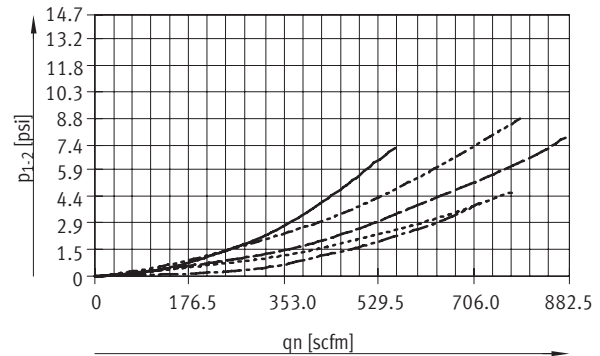
With port plate MS12-AGG, Pneumatic connection 1¼ NPT



With port plate MS12-AGH, Pneumatic connection 1½ NPT



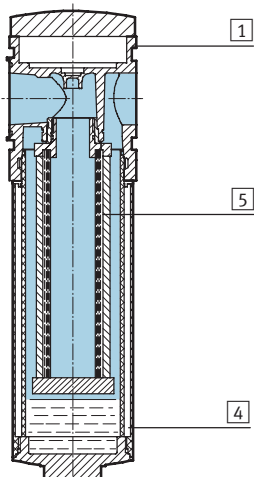
With port plate MS12-AGI, Pneumatic connection 2 NPT



- p1: 59 psi
- - - p1: 88 psi
- · - p1: 118 psi
- · · p1: 147 psi
- - - p1: 176 psi

## Materials

Sectional view



| Active carbon filter |            |                         |
|----------------------|------------|-------------------------|
| 1                    | Body       | Die-cast aluminum       |
| 4                    | Metal bowl | Wrought aluminum alloy  |
| 5                    | Filter     | Active carbon           |
| -                    | Seals      | Nitrile rubber          |
| Note on materials    |            | Free of copper and PTFE |

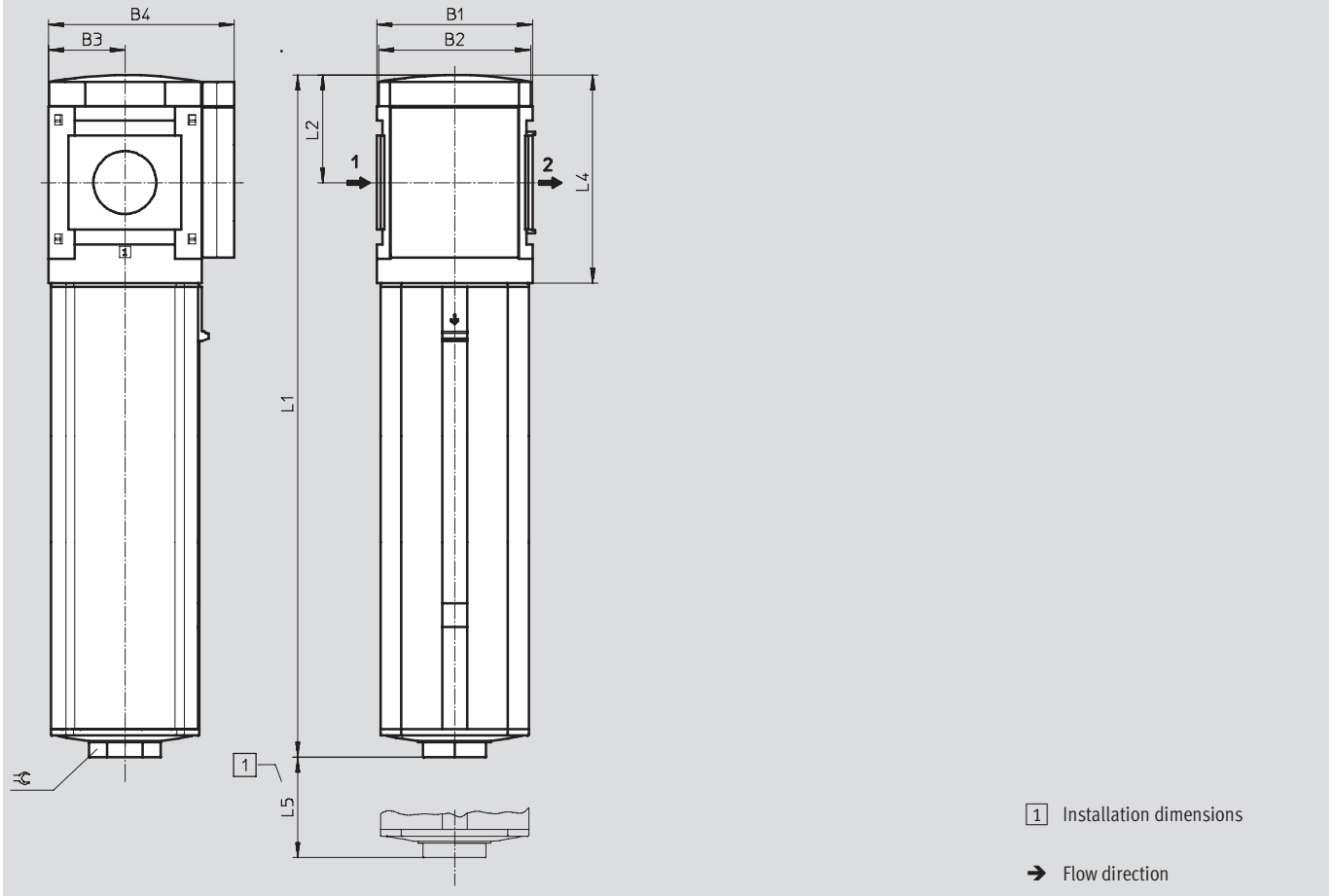
# Active Carbon Filters MS12N-LFX – Inch Series



Dimensional Drawings, Ordering Data – Pre-configured Products

## Dimensions<sup>1)</sup> – Standard

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



| B1   | B2   | B3   | B4   | L1    | L2   | L4   | L5    | ±    |
|------|------|------|------|-------|------|------|-------|------|
| 4.88 | 4.80 | 2.40 | 5.83 | 21.38 | 3.39 | 6.54 | 13.78 | 1.97 |

1) Dimensions are in inches, unless otherwise noted.

| Ordering Data                 |          |              |    |
|-------------------------------|----------|--------------|----|
| Metal bowl                    |          |              |    |
| Connection                    | Part No. | Type         | LT |
| 1 NPT ... 2 NPT <sup>1)</sup> | 537155   | MS12-LFX-G-U | 1D |

LT = Lead time      1D typically ships same day/next day      1W typically ships within 1 week      Q request a quote for lead time

1) Port plate must be ordered separately as an accessory → 1167

# Active Carbon Filters MS12N-LFX – Inch Series



Ordering Data – Configurable Products

| M Mandatory Data     |        |      |        |          |                               |      | O Options        |                        |
|----------------------|--------|------|--------|----------|-------------------------------|------|------------------|------------------------|
| Part No.             | Series | Size | Thread | Function | Connection size               | Bowl | Type of mounting | Reverse flow direction |
| 535046               | MS     | 12   | N      | LFX      | AQT<br>AQU<br>AQV<br>AQW<br>G | U    | WP               | Z                      |
| <b>Order example</b> |        |      |        |          |                               |      |                  |                        |
| 535046               | MS     | 12   | N      | LFX      | AQT                           | U    | WP               | Z                      |

| Ordering Table |                        |  |                            |
|----------------|------------------------|--|----------------------------|
| Grid dimension | [mm]                   | 124  | Conditions Code Enter code |
| M              | Part No.               | 535046   |                            |
|                | Series                 | Standard   | MS MS                      |
|                | Size                   | 12   | 12 12                      |
|                | Thread                 | NPT thread   | N N                        |
|                | Function               | Active carbon filter                                 | -LFX -LFX                  |
|                | Connection size        | Port plate 1 NPT (dimensions → 1167)                 | -AQT                       |
|                |                        | Port plate 1¼ NPT (dimensions → 1167)                | -AQU                       |
|                |                        | Port plate 1½ NPT (dimensions → 1167)                | -AQV                       |
|                |                        | Port plate 2 NPT (dimensions → 1167)                 | -AQW                       |
|                |                        | Module without connecting thread, without port plate | -G                         |
|                | Bowl                   | Metal bowl   | -U -U                      |
| O              | Type of mounting       | Mounting bracket (dimensions → 1168)                 | 1 -WP                      |
|                | Reverse flow direction | Flow direction from right to left                    | -Z                         |

1 WP Only with port plate AQT, AQU, AQV or AQW

**Transfer order code**

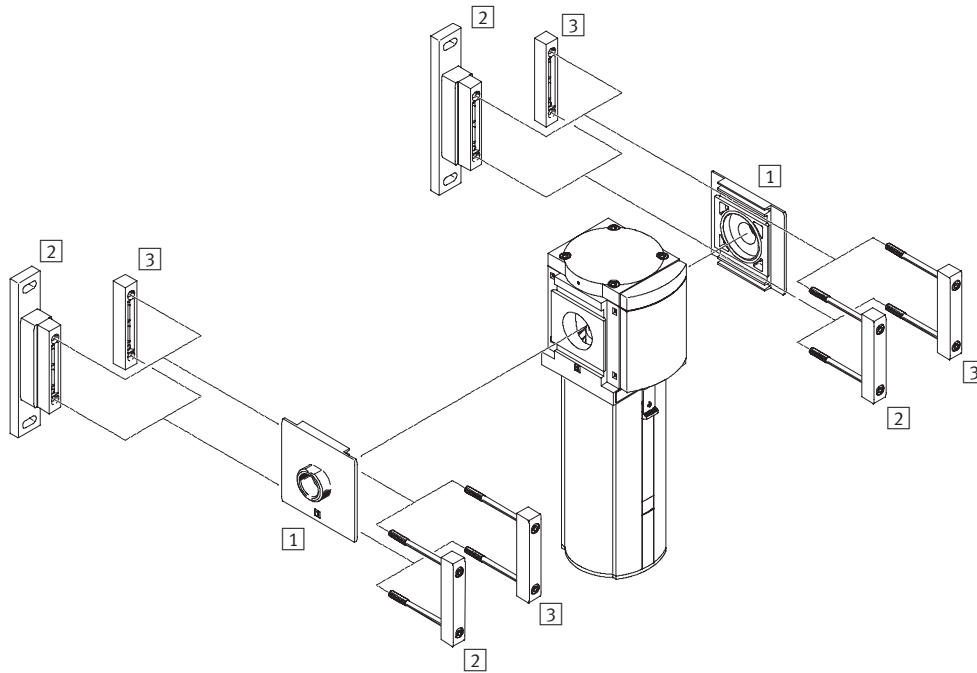
|        |    |    |   |   |     |   |  |   |   |   |  |   |  |
|--------|----|----|---|---|-----|---|--|---|---|---|--|---|--|
| 535046 | MS | 12 | N | - | LFX | - |  | - | U | - |  | - |  |
|--------|----|----|---|---|-----|---|--|---|---|---|--|---|--|

# Active Carbon Filters MS12N-LFX – Inch Series

Accessories Overview



## Mounting Attachments and Accessories



| Mounting Attachments and Accessories |                             | → Page |
|--------------------------------------|-----------------------------|--------|
| 1                                    | Port plate<br>MS12-AQ...    | 1167   |
| 2                                    | Mounting bracket<br>MS12-WP | 1168   |
| 3                                    | Body connector<br>MS12-MV   | 1167   |

# Active Carbon Filters MS12N-LFX – Inch Series



Accessories

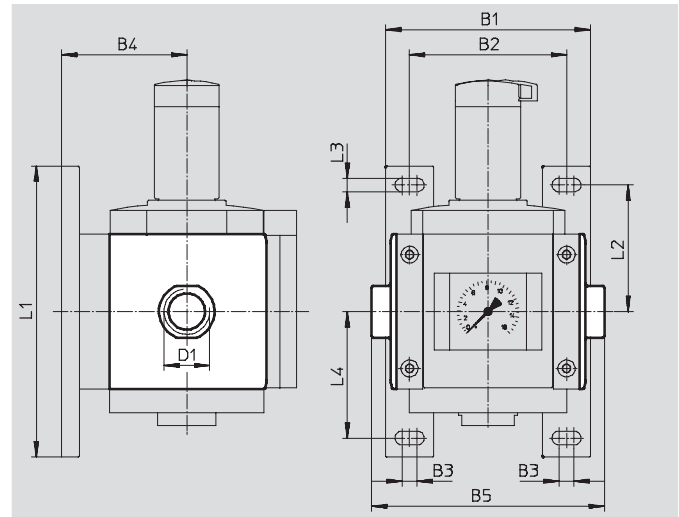
## 1 Port plate MS12-AQ...

- Adapter for pneumatic connection

Material:

Die-cast aluminum

Free of copper and PTFE



| Dimensions and Ordering Data |      |      |      |      |        |      |      |      |      |                |          |          |
|------------------------------|------|------|------|------|--------|------|------|------|------|----------------|----------|----------|
| B1                           | B2   | B3   | B4   | B5   | D1     | L1   | L2   | L3   | L4   | Weight<br>[[b] | Part No. | Type     |
| 6.38                         | 4.88 | 0.47 | 3.90 | 7.24 | 1 NPT  | 9.06 | 3.94 | 0.43 | 3.94 | 2.60           | 537139   | MS12-AQT |
|                              |      |      |      | 7.24 | 1¼ NPT |      |      |      |      |                | 537140   | MS12-AQU |
|                              |      |      |      | 7.24 | 1½ NPT |      |      |      |      |                | 537141   | MS12-AQV |
|                              |      |      |      | 7.72 | 2 NPT  |      |      |      |      |                | 537142   | MS12-AQW |

## 3 Body connector MS12-MV

- For connecting modules

Material:

Die-cast aluminum,

Free of copper and PTFE



| Ordering Data |                |          |         |
|---------------|----------------|----------|---------|
| Size          | Weight<br>[[b] | Part No. | Type    |
| MS12          | 1.00           | 537134   | MS12-MV |

## Active Carbon Filters MS12N-LFX – Inch Series

FESTO

Accessories

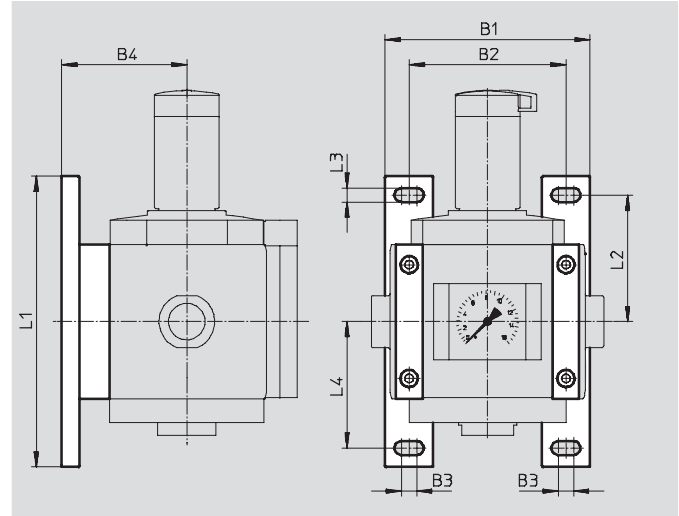
### 2 Mounting bracket MS12-WP

- To connect the modules for wall mounting
- In combination with a port plate for mounting an individual unit on a wall

Material:

Die-cast aluminum

Free of copper and PTFE



#### Dimensions and Ordering Data

| Size | B1   | B2   | B3   | B4   | L1   | L2   | L3   | L4   | Weight<br>[[b] | Part No. | Type    |
|------|------|------|------|------|------|------|------|------|----------------|----------|---------|
| MS12 | 6.38 | 4.88 | 0.47 | 3.90 | 9.06 | 3.94 | 0.43 | 3.94 | 1.40           | 537133   | MS12-WP |



## Active Carbon Filters MS12N-LFX – Inch Series

Replacement Parts

FESTO



| Ordering Data – Filter Cartridges |  |          |          |
|-----------------------------------|--|----------|----------|
| Size                              | Filtration grade [ $\mu\text{m}$ ]               | Part No. | Type     |
| MS12                              | Residual oil content $\leq 0.003 \text{ mg/m}^3$ | 537147   | MS12-LFX |

- For spare parts go to: [www.festo.com/en/spare\\_parts\\_service](http://www.festo.com/en/spare_parts_service)



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