

## Service unit combination MSB4N

**FESTO**



### Characteristics

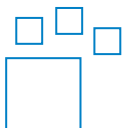
#### At a glance

Predefined or freely configurable service unit combinations.

- Grid dimension: 40 mm
- Depending on the application, consisting of filter regulator, filter, lubricator, on/off valve, soft-start valve, branching module

#### Ordering data - modular system

Link [msb4n](#)



Configurable product

This product and all its product options can be ordered online via the configurator.

#### Engineering tools

Link [engineering tools](#)



A selection tool for sizing a suitable service unit component and the correct air purity class can be found under Engineering Tools.

#### Pneumatic connection

Individual fittings can be connected via connecting plates with female threads.

#### UL certification

Optional device variant UL1, which meets the safety requirements for the Canadian and US markets.

#### Flow direction

Available with flow in the opposite direction.

#### Service unit component equipment

The order of the individual service unit components within a combination is relevant for safety and functionality. The following rules must be taken into account:

- Regulators MS-LFR/LR/LRP are only permissible in the flow direction with an equal or decreasing pressure regulation range
- Filters MS-LFR/LF/LFM/LFX are only permissible in the flow direction with an increasing grade of filtration
- Lubricators MS-LOE are not permitted in the flow direction upstream of a filter MS-LFR/LFM/LF/LFX, water separator MS-LWS or membrane air dryer MS-LDM1
- A micro filter MS-LFM must be installed in the flow direction upstream of an activated carbon filter MS-LFX or membrane air dryer MS-LDM1
- A flow sensor SFAM cannot be installed directly downstream of a regulator MS-LFR/LR; a branching module MS-FRM must be positioned between them
- A soft-start/quick exhaust valve MS-SV must be the last service unit component in the flow direction

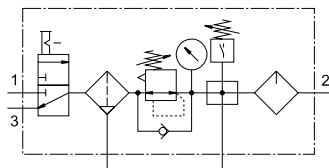
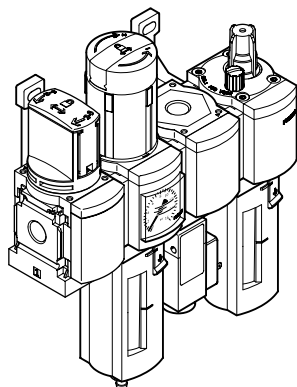
## Type code

|            |                                  |  |
|------------|----------------------------------|--|
| 001        | Series                           |  |
| <b>MSB</b> | Service unit component MS series |  |
| 002        | Size                             |  |
| <b>4</b>   | Grid dimension 40 mm             |  |
| 003        | Thread type                      |  |
| <b>N</b>   | NPT thread                       |  |
| 004        | Pneumatic connection, inch       |  |
| <b>1/8</b> | Female thread NPT 1/8            |  |
| <b>1/4</b> | Female thread NPT 1/4            |  |
| <b>AQK</b> | Sub-base NPT1/8                  |  |
| <b>AQN</b> | Sub-base NPT1/4                  |  |
| <b>AQP</b> | Sub-base NPT3/8                  |  |

|            |                                                         |  |
|------------|---------------------------------------------------------|--|
| 005        | Service unit component equipment                        |  |
| <b>...</b> | For selection, see overview list                        |  |
| 006        | Type of mounting                                        |  |
|            | Without mounting bracket                                |  |
| <b>WP</b>  | Mounting bracket basic design                           |  |
| <b>WPB</b> | Mounting bracket for large wall gap                     |  |
| <b>WPM</b> | Mounting bracket for hooking in service unit components |  |
| 007        | Flow direction                                          |  |
|            | Flow direction from left to right                       |  |
| <b>Z</b>   | Flow direction from right to left                       |  |

## Datasheet

## Technical data – Combination 1



- For filtered and lubricated compressed air supply.
- Supply pressure can be switched on or off
- Output pressure is infinitely adjustable within the pressure regulation range
- The system is exhausted when switched off.
- Electrical pressure monitoring with adjustable switching pressure.
- Removal of filtered and unlubricated compressed air at the ports of the branching module.

## Setup:

- On/off valve MS...-EM1, manually operated
- Filter regulator MS...-LFR-D7
- Branching module MS...-FRM-Y with pressure switch, without display
- Lubricator MS...-LOE-R
- Mounting bracket MS...-WP

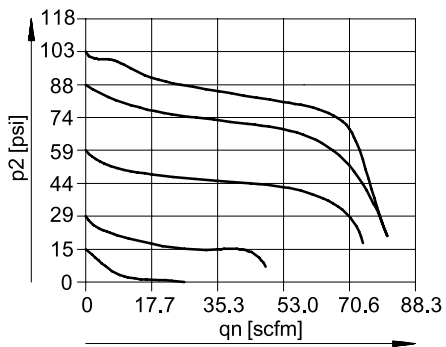
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|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Size                                                  | 4                                                                                                                        |                                           |
| Condensate drain                                      | Fully automatic                                                                                                          |                                           |
| Grade of filtration                                   | 5 µm                                                                                                                     | 40 µm                                     |
| Pneumatic connection, port 1                          | 1/4 NPT                                                                                                                  |                                           |
| Pneumatic connection, port 2                          | 1/4 NPT                                                                                                                  |                                           |
| Pneumatic connection, port 3                          | 1/4 NPT                                                                                                                  |                                           |
| Controller function                                   | Output pressure constant<br>With primary pressure compensation<br>With secondary exhausting<br>With return flow function |                                           |
| Type of mounting                                      | With accessories                                                                                                         |                                           |
| Mounting position                                     | Vertical +/-5°                                                                                                           |                                           |
| Air purity class at output                            | Compressed air to ISO 8573-1:2010 [6:4:-]                                                                                | Compressed air to ISO 8573-1:2010 [7:4:-] |
| Bowl guard                                            | Plastic bowl guard                                                                                                       |                                           |
| Actuator lock                                         | Rotary knob with integrated lock                                                                                         |                                           |
| Pressure gauge (ANALOG) or Pressure display (DIGITAL) | With pressure gauge                                                                                                      |                                           |
| Pressure regulation range                             | 1 ... 12 bar                                                                                                             |                                           |
| Operating pressure                                    | 2 ... 12 bar                                                                                                             |                                           |
| Operating medium                                      | Compressed air to ISO 8573-1:2010 [7:4:4], Inert gas                                                                     |                                           |
| Note on operating and pilot medium                    | Lubricated operation possible (in which case lubricated operation will always be required)                               |                                           |
| Ambient temperature                                   | 5 ... 60°C                                                                                                               |                                           |
| Media temperature                                     | 5 ... 60°C                                                                                                               |                                           |
| Storage temperature                                   | -10 ... 60°C                                                                                                             |                                           |
| Corrosion resistance class CRC <sup>1)</sup>          | 2 - Moderate corrosion stress                                                                                            |                                           |
| Suitable for use with food <sup>2)</sup>              | See supplementary material information                                                                                   |                                           |
| Material housing                                      | Die-cast aluminium                                                                                                       |                                           |
| Material bowl                                         | Makrolon®                                                                                                                |                                           |
| LABS (PWIS) conformity                                | VDMA24364-B1/B2-L                                                                                                        |                                           |

1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

2) More information [www.festo.com/catalogue/msb4](http://www.festo.com/catalogue/msb4) → Support/Downloads.

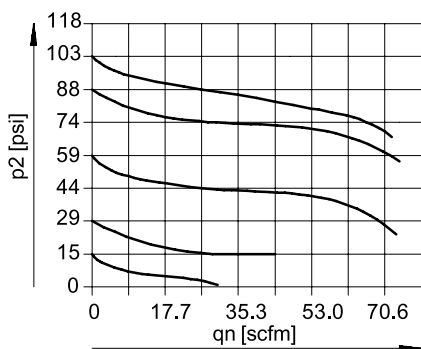
## Datasheet

### Standard flow rate $q_n$ as a function of the outlet pressure $p_2$ (combination 1, grade of filtration 5 $\mu\text{m}$ )



Grade of filtration 5  $\mu\text{m}$   
 Pressure regulation range 15 ... 176 psi  
 Input pressure  $p_1 = 147$  psi

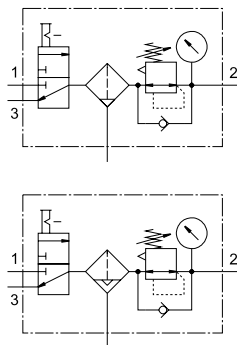
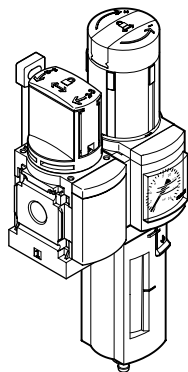
### Standard flow rate $q_n$ as a function of output pressure $p_2$ (combination 1, grade of filtration 40 $\mu\text{m}$ )



Grade of filtration 40  $\mu\text{m}$   
 Pressure regulation range 15 ... 176 psi  
 Input pressure  $p_1 = 147$  psi

## Datasheet

## Technical data – Combination 2



- For filtered and unlubricated compressed air supply.
- Supply pressure can be switched on or off
- Output pressure is infinitely adjustable within the pressure regulation range

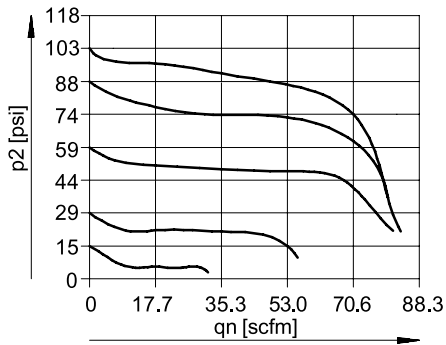
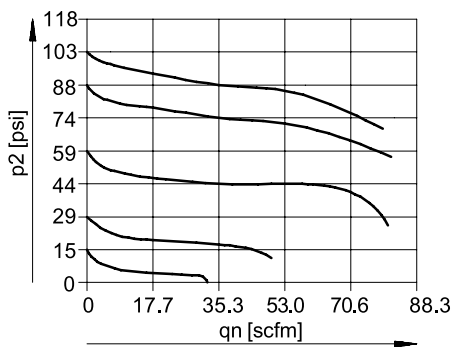
## Setup:

- On/off valve MS...-EM1, manually operated
- Filter regulator MS...-LFR-D7
- Mounting bracket MS...-WP

|                                                          |                                                                                                                          |                                           |                                           |                                                           |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-----------------------------------------------------------|
| Size                                                     | 4                                                                                                                        |                                           |                                           |                                                           |
| Condensate drain                                         | Fully automatic                                                                                                          |                                           | Manual, rotating                          |                                                           |
| Grade of filtration                                      | 5 µm                                                                                                                     | 40 µm                                     | 5 µm                                      | 40 µm                                                     |
| Pneumatic connection, port 1                             | 1/4 NPT                                                                                                                  |                                           |                                           |                                                           |
| Pneumatic connection, port 2                             | 1/4 NPT                                                                                                                  |                                           |                                           |                                                           |
| Pneumatic connection, port 3                             | 1/4 NPT                                                                                                                  |                                           |                                           |                                                           |
| Controller function                                      | Output pressure constant<br>With primary pressure compensation<br>With secondary exhausting<br>With return flow function |                                           |                                           |                                                           |
| Type of mounting                                         | With accessories                                                                                                         |                                           |                                           |                                                           |
| Mounting position                                        | Vertical +/- 5°                                                                                                          |                                           |                                           |                                                           |
| Air purity class at output                               | Compressed air to ISO 8573-1:2010 [6:4:4]                                                                                | Compressed air to ISO 8573-1:2010 [7:4:4] | Compressed air to ISO 8573-1:2010 [6:4:4] | Compressed air to ISO 8573-1:2010 [7:4:4]                 |
| Bowl guard                                               | Plastic bowl guard                                                                                                       |                                           |                                           |                                                           |
| Actuator lock                                            | Rotary knob with integrated lock                                                                                         |                                           |                                           | Rotary knob with detent<br>can be closed with accessories |
| Pressure gauge (ANALOG) or<br>Pressure display (DIGITAL) | With pressure gauge                                                                                                      |                                           |                                           |                                                           |
| Pressure regulation range                                | 0.5 ... 12 bar                                                                                                           |                                           |                                           | 1 ... 12 bar                                              |
| Operating pressure                                       | 2 ... 12 bar                                                                                                             |                                           | 0.8 ... 14 bar                            | 1.5 ... 14 bar                                            |
| Operating medium                                         | Compressed air to ISO 8573-1:2010 [7:4:4], Inert gas                                                                     |                                           |                                           |                                                           |
| Note on operating and pilot<br>medium                    | Lubricated operation possible (in which case lubricated operation will always be required)                               |                                           |                                           |                                                           |
| Ambient temperature                                      | 5 ... 60°C                                                                                                               |                                           | -10 ... 60°C                              |                                                           |
| Media temperature                                        | -10 ... 60°C                                                                                                             | 5 ... 60°C                                | -10 ... 60°C                              |                                                           |
| Storage temperature                                      | -10 ... 60°C                                                                                                             |                                           |                                           |                                                           |
| Corrosion resistance class<br>CRC <sup>1)</sup>          | 2 - Moderate corrosion stress                                                                                            |                                           |                                           |                                                           |
| Suitable for use with food <sup>2)</sup>                 | See supplementary material information                                                                                   |                                           |                                           |                                                           |
| Material housing                                         | Die-cast aluminium                                                                                                       |                                           |                                           |                                                           |
| Material bowl                                            | Makrolon®                                                                                                                |                                           |                                           |                                                           |
| LABS (PWIS) conformity                                   | VDMA24364-B1/B2-L                                                                                                        |                                           |                                           |                                                           |

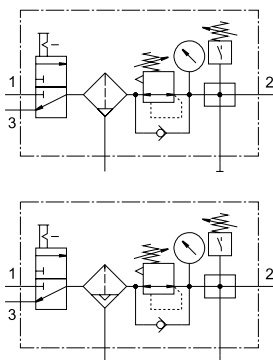
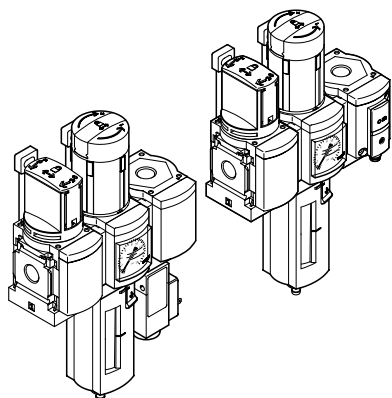
1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)2) More information [www.festo.com/catalogue/msb4](http://www.festo.com/catalogue/msb4) → Support/Downloads.

## Datasheet

Standard flow rate  $q_n$  as a function of the outlet pressure  $p_2$  (combination 2, grade of filtration 5  $\mu\text{m}$ )Standard flow rate  $q_n$  as a function of the outlet pressure  $p_2$  (combination 2, grade of filtration 40  $\mu\text{m}$ )

## Datasheet

## Technical data – Combination 3



- For filtered and unlubricated compressed air supply.
- Supply pressure can be switched on or off
- Output pressure is infinitely adjustable within the pressure regulation range
- Electrical pressure monitoring with adjustable switching pressure.

## Setup:

- On/off valve MS...-EM1, manually operated
- Filter regulator MS...-LFR-D7
- Branching module MS...-FRM-Y with pressure switch, without display
- Mounting bracket MS...-WP

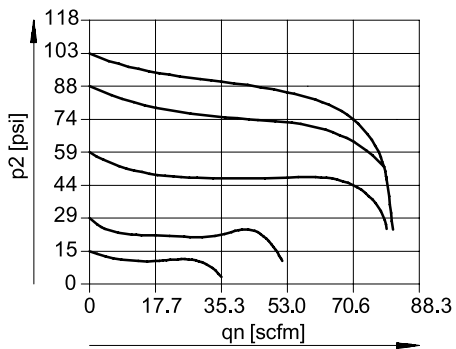
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|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Size                                                  | 4                                                                                                                        |                                           |
| Condensate drain                                      | Fully automatic                                                                                                          |                                           |
| Grade of filtration                                   | 5 µm                                                                                                                     | 40 µm                                     |
| Pneumatic connection, port 1                          | 1/4 NPT                                                                                                                  |                                           |
| Pneumatic connection, port 2                          | 1/4 NPT                                                                                                                  |                                           |
| Pneumatic connection, port 3                          | 1/4 NPT                                                                                                                  |                                           |
| Controller function                                   | Output pressure constant<br>With primary pressure compensation<br>With secondary exhausting<br>With return flow function |                                           |
| Type of mounting                                      | With accessories                                                                                                         |                                           |
| Mounting position                                     | Vertical +/-5°                                                                                                           |                                           |
| Air purity class at output                            | Compressed air to ISO 8573-1:2010 [6:4:4]                                                                                | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Bowl guard                                            | Plastic bowl guard                                                                                                       |                                           |
| Actuator lock                                         | Rotary knob with integrated lock                                                                                         |                                           |
| Pressure gauge (ANALOG) or Pressure display (DIGITAL) | With pressure gauge                                                                                                      |                                           |
| Pressure regulation range                             | 0.3 ... 12 bar                                                                                                           | 0.5 ... 12 bar                            |
| Operating pressure                                    | 0.8 ... 14 bar                                                                                                           | 2 ... 12 bar                              |
| Operating medium                                      | Compressed air to ISO 8573-1:2010 [7:4:4], Inert gas                                                                     |                                           |
| Note on operating and pilot medium                    | Lubricated operation possible (in which case lubricated operation will always be required)                               |                                           |
| Ambient temperature                                   | -10 ... 60°C                                                                                                             | 5 ... 60°C                                |
| Media temperature                                     | -10 ... 60°C                                                                                                             | 5 ... 60°C                                |
| Storage temperature                                   | -10 ... 60°C                                                                                                             |                                           |
| Corrosion resistance class CRC <sup>1)</sup>          | 2 - Moderate corrosion stress                                                                                            |                                           |
| Suitable for use with food <sup>2)</sup>              | See supplementary material information                                                                                   |                                           |
| Material housing                                      | Die-cast aluminium                                                                                                       |                                           |
| Material bowl                                         | Makrolon®                                                                                                                |                                           |
| LABS (PWIS) conformity                                | VDMA24364-B1/B2-L                                                                                                        |                                           |

1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

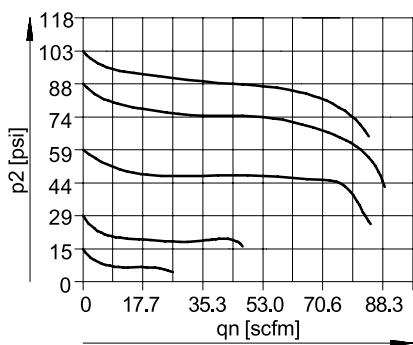
2) More information [www.festo.com/catalogue/msb4](http://www.festo.com/catalogue/msb4) → Support/Downloads.



## Datasheet

Standard flow rate  $q_n$  as a function of the outlet pressure  $p_2$  (combination 3, grade of filtration 5  $\mu\text{m}$ )

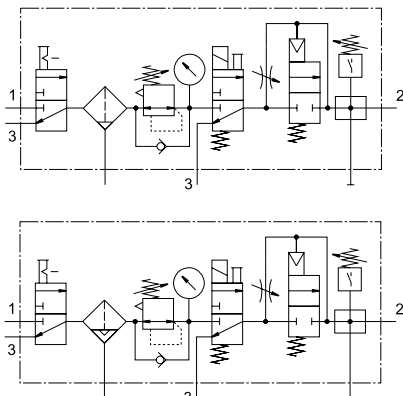
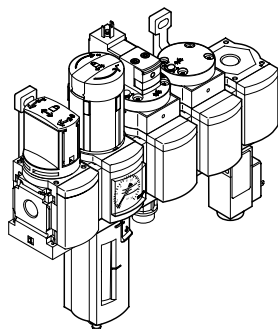
Grade of filtration 5  $\mu\text{m}$   
 Pressure regulation range 7.4 ... 176 psi  
 Input pressure  $p_1 = 147$  psi

Standard flow rate  $q_n$  as a function of the output pressure  $p_2$  (combination 3, grade of filtration 40  $\mu\text{m}$ )

Grade of filtration 40  $\mu\text{m}$   
 Pressure regulation range 7.4 ... 176 psi  
 Input pressure  $p_1 = 147$  psi

## Datasheet

## Technical data – Combination 4



- For filtered and unlubricated compressed air supply.
- Supply pressure can be switched on or off
- Output pressure is infinitely adjustable within the pressure regulation range
- Gradual pressure build-up prevents sudden, unpredictable movements.
- To shut off and exhaust the downstream device or the system
- Electrical pressure monitoring with adjustable switching pressure.

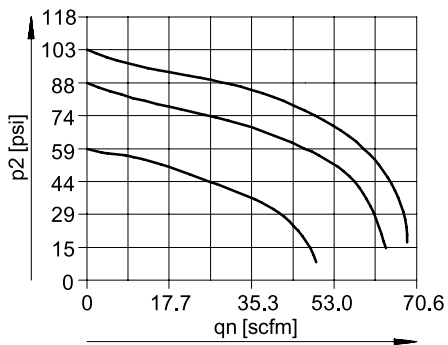
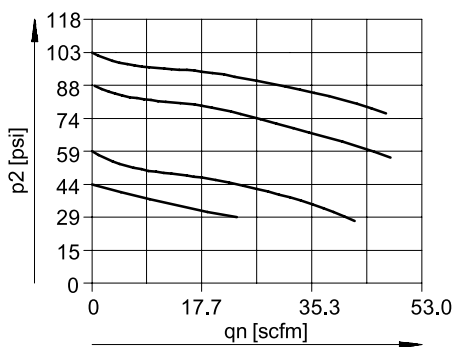
## Setup:

- On/off valve MS...-EM1, manually operated
- Filter regulator MS...-LFR-D7
- On/off valve MS...-EE-10V24 or MS...-EE-V24, electrically actuated
- Soft-start valve MS...-DL, pneumatically actuated
- Branching module MS...-FRM-Y with pressure switch, without display
- Mounting bracket MS...-WP

|                                                          |                                                                                                                          |                                           |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Size                                                     | 4                                                                                                                        |                                           |
| Condensate drain                                         | Manual, rotating                                                                                                         |                                           |
| Grade of filtration                                      | 5 µm                                                                                                                     | 40 µm                                     |
| Pneumatic connection, port 1                             | 1/4 NPT                                                                                                                  |                                           |
| Pneumatic connection, port 2                             | 1/4 NPT                                                                                                                  |                                           |
| Pneumatic connection, port 3                             | G1/4, 1/4 NPT                                                                                                            |                                           |
| Controller function                                      | Output pressure constant<br>With primary pressure compensation<br>With secondary exhausting<br>With return flow function |                                           |
| Type of mounting                                         | With accessories                                                                                                         |                                           |
| Mounting position                                        | Vertical +/-5°                                                                                                           |                                           |
| Air purity class at output                               | Compressed air to ISO 8573-1:2010 [6:4:4]                                                                                | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Bowl guard                                               | Plastic bowl guard                                                                                                       |                                           |
| Actuator lock                                            | Rotary knob with detent<br>Rotary knob with integrated lock<br>can be closed with accessories                            | Rotary knob with integrated lock          |
| Pressure gauge (ANALOG) or<br>Pressure display (DIGITAL) | With pressure gauge                                                                                                      |                                           |
| Pressure regulation range                                | 4 ... 12 bar                                                                                                             |                                           |
| Operating pressure                                       | 4.5 ... 14 bar                                                                                                           | 1.5 ... 14 bar                            |
| Operating medium                                         | Compressed air to ISO 8573-1:2010 [7:4:4], Inert gas                                                                     |                                           |
| Note on operating and pilot<br>medium                    | Lubricated operation possible (in which case lubricated operation will always be required)                               |                                           |
| Ambient temperature                                      | -10 ... 60°C                                                                                                             |                                           |
| Media temperature                                        | -10 ... 60°C                                                                                                             |                                           |
| Storage temperature                                      | -10 ... 60°C                                                                                                             |                                           |
| Corrosion resistance class<br>CRC <sup>1)</sup>          | 2 - Moderate corrosion stress                                                                                            |                                           |
| Suitable for use with food <sup>2)</sup>                 | See supplementary material information                                                                                   |                                           |
| Material housing                                         | Die-cast aluminium                                                                                                       |                                           |
| Material bowl                                            | Makrolon®                                                                                                                |                                           |
| LABS (PWIS) conformity                                   | VDMA24364-B2-L, VDMA24364-B1/B2-L                                                                                        | VDMA24364-B1/B2-L                         |

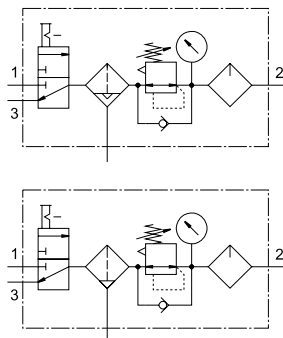
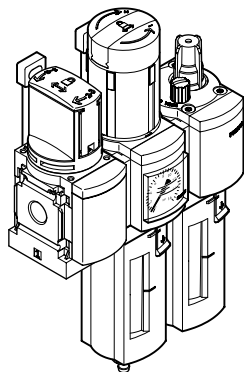
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## Datasheet

Standard flow rate  $q_n$  as a function of the outlet pressure  $p_2$  (combination 4, grade of filtration 5  $\mu\text{m}$ )Standard flow rate  $q_n$  as a function of output pressure  $p_2$  (combination 4, grade of filtration 40  $\mu\text{m}$ )

## Datasheet

## Technical data – Combination 5



- For filtered and lubricated compressed air supply.
- Supply pressure can be switched on or off.
- Output pressure is infinitely adjustable within the pressure regulation range.

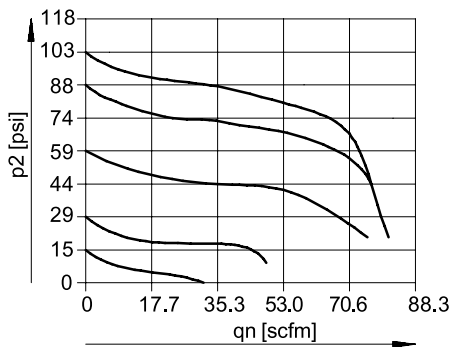
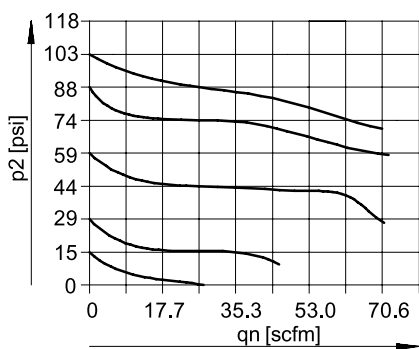
## Setup:

- On/off valve MS...-EM1, manually operated
- Filter regulator MS...-LFR-D7
- Lubricator MS...-LOE-R
- Mounting bracket MS...-WP

|                                                       |                                                                                                                          |                                           |                  |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------|
| Size                                                  | 4                                                                                                                        |                                           |                  |
| Condensate drain                                      | Fully automatic                                                                                                          |                                           | Manual, rotating |
| Grade of filtration                                   | 5 µm                                                                                                                     | 40 µm                                     |                  |
| Pneumatic connection, port 1                          | 1/4 NPT                                                                                                                  |                                           |                  |
| Pneumatic connection, port 2                          | 1/4 NPT                                                                                                                  |                                           |                  |
| Pneumatic connection, port 3                          | 1/4 NPT                                                                                                                  |                                           |                  |
| Controller function                                   | Output pressure constant<br>With primary pressure compensation<br>With secondary exhausting<br>With return flow function |                                           |                  |
| Type of mounting                                      | With accessories                                                                                                         |                                           |                  |
| Mounting position                                     | Vertical +/-5°                                                                                                           |                                           |                  |
| Air purity class at output                            | Compressed air to ISO 8573-1:2010 [6:4:-]                                                                                | Compressed air to ISO 8573-1:2010 [7:4:-] |                  |
| Bowl guard                                            | Plastic bowl guard                                                                                                       |                                           |                  |
| Actuator lock                                         | Rotary knob with integrated lock                                                                                         |                                           |                  |
| Pressure gauge (ANALOG) or Pressure display (DIGITAL) | With pressure gauge                                                                                                      |                                           |                  |
| Pressure regulation range                             | 1 ... 12 bar                                                                                                             |                                           |                  |
| Operating pressure                                    | 1.5 ... 14 bar                                                                                                           | 2 ... 12 bar                              | 1.5 ... 14 bar   |
| Operating medium                                      | Compressed air to ISO 8573-1:2010 [7:4:4], Inert gas                                                                     |                                           |                  |
| Note on operating and pilot medium                    | Lubricated operation possible (in which case lubricated operation will always be required)                               |                                           |                  |
| Ambient temperature                                   | -10 ... 60°C                                                                                                             | 5 ... 60°C                                | -10 ... 60°C     |
| Media temperature                                     | -10 ... 60°C                                                                                                             | 5 ... 60°C                                | -10 ... 60°C     |
| Storage temperature                                   | -10 ... 60°C                                                                                                             |                                           |                  |
| Corrosion resistance class CRC <sup>1)</sup>          | 2 - Moderate corrosion stress                                                                                            |                                           |                  |
| Suitable for use with food <sup>2)</sup>              | See supplementary material information                                                                                   |                                           |                  |
| Material housing                                      | Die-cast aluminium                                                                                                       |                                           |                  |
| Material bowl                                         | Makrolon®                                                                                                                |                                           |                  |
| LABS (PWIS) conformity                                | VDMA24364-B1/B2-L                                                                                                        |                                           |                  |

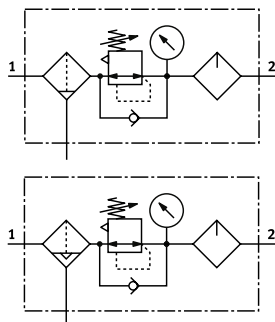
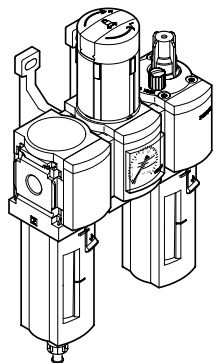
1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)2) More information [www.festo.com/catalogue/msb4](http://www.festo.com/catalogue/msb4) → Support/Downloads.

## Datasheet

Standard flow rate  $q_n$  as a function of the output pressure  $p_2$  (combination 5, grade of filtration 5  $\mu\text{m}$ )Standard flow rate  $q_n$  as a function of the outlet pressure  $p_2$  (combination 5, grade of filtration 40  $\mu\text{m}$ )

## Datasheet

## Technical data – Combination 6



- For filtered and lubricated compressed air supply.
- Output pressure is infinitely adjustable within the pressure regulation range

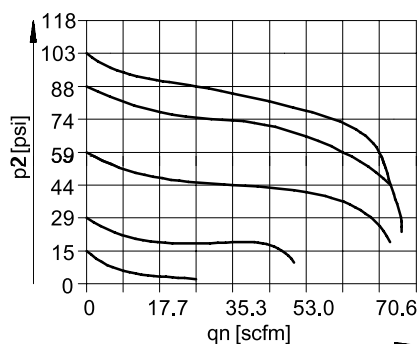
## Setup:

- Filter MS...-LF
- Pressure regulator MS...-LR
- Lubricator MS...-LOE
- Mounting bracket MS...-WP

|                                                       |                                                                                            |                                           |                                                      |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------|
| Size                                                  | 4                                                                                          |                                           |                                                      |
| Condensate drain                                      | Fully automatic                                                                            |                                           | Manual, rotating                                     |
| Grade of filtration                                   | 5 µm                                                                                       | 40 µm                                     |                                                      |
| Pneumatic connection, port 1                          | 1/4 NPT                                                                                    |                                           |                                                      |
| Pneumatic connection, port 2                          | 1/4 NPT                                                                                    |                                           |                                                      |
| Type of mounting                                      | With accessories                                                                           |                                           |                                                      |
| Mounting position                                     | Vertical +/- 5°                                                                            |                                           |                                                      |
| Air purity class at output                            | Compressed air to ISO 8573-1:2010 [6:4:-]                                                  | Compressed air to ISO 8573-1:2010 [7:4:-] |                                                      |
| Bowl guard                                            | Plastic bowl guard                                                                         |                                           |                                                      |
| Actuator lock                                         | Rotary knob with integrated lock                                                           |                                           |                                                      |
| Pressure gauge (ANALOG) or Pressure display (DIGITAL) | With pressure gauge                                                                        |                                           |                                                      |
| Pressure regulation range                             | 1 ... 12 bar                                                                               |                                           |                                                      |
| Operating pressure                                    | 2 ... 12 bar                                                                               | 1.5 ... 14 bar                            |                                                      |
| Operating medium                                      | Compressed air to ISO 8573-1:2010 [7:4:-], Inert gas                                       |                                           | Compressed air to ISO 8573-1:2010 [-:4:-], Inert gas |
| Note on operating and pilot medium                    | Lubricated operation possible (in which case lubricated operation will always be required) |                                           |                                                      |
| Ambient temperature                                   | -10 ... 60°C                                                                               | 5 ... 60°C                                | -10 ... 60°C                                         |
| Media temperature                                     | -10 ... 60°C                                                                               | 5 ... 60°C                                | -10 ... 60°C                                         |
| Storage temperature                                   | -10 ... 60°C                                                                               |                                           |                                                      |
| Corrosion resistance class CRC <sup>1)</sup>          | 2 - Moderate corrosion stress                                                              |                                           |                                                      |
| Suitable for use with food <sup>2)</sup>              | See supplementary material information                                                     |                                           |                                                      |
| Material housing                                      | Die-cast aluminium                                                                         |                                           |                                                      |
| Material bowl                                         | Makrolon®                                                                                  |                                           |                                                      |
| LABS (PWIS) conformity                                | VDMA24364-B2-L                                                                             |                                           |                                                      |

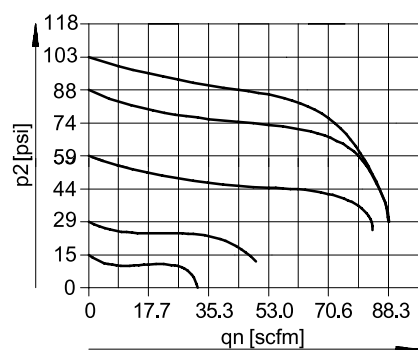
1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

2) More information [www.festo.com/catalogue/msb4](http://www.festo.com/catalogue/msb4) → Support/Downloads.

Standard flow rate  $q_n$  as a function of output pressure  $p_2$  (combination 6, grade of filtration 5 µm)

Grade of filtration 5 µm  
Pressure regulation range 15 ... 176 psi  
Input pressure  $p_1 = 147$  psi

## Datasheet

Standard flow rate  $q_n$  as a function of the outlet pressure  $p_2$  (combination 6, grade of filtration 40  $\mu\text{m}$ )Grade of filtration 40  $\mu\text{m}$ 

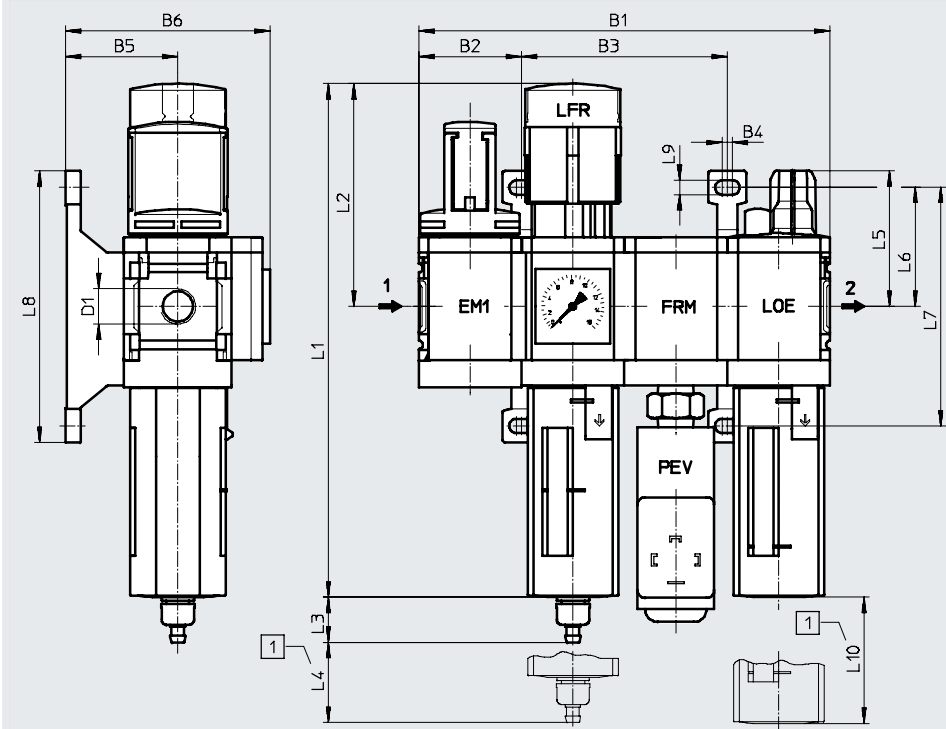
Pressure regulation range 15 ... 176 psi

Input pressure  $p_1 = 147$  psi

Dimensions

Dimensions – Combination 1 – Manually operated on/off valve, filter regulator with pressure gauge, branching module with pressure switch, lubricator

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[1] Installation dimension

|       |              |              |              |              |              |              |         |              |              |
|-------|--------------|--------------|--------------|--------------|--------------|--------------|---------|--------------|--------------|
|       | B1<br>[inch] | B2<br>[inch] | B3<br>[inch] | B4<br>[inch] | B5<br>[inch] | B6<br>[inch] | D1      | L1<br>[inch] | L2<br>[inch] |
| MSB4N | 6,33         | 1,58         | 3,17         | 0,16         | 1,73         | 3,15         | 1/4 NPT | 7,91         | 3,43         |

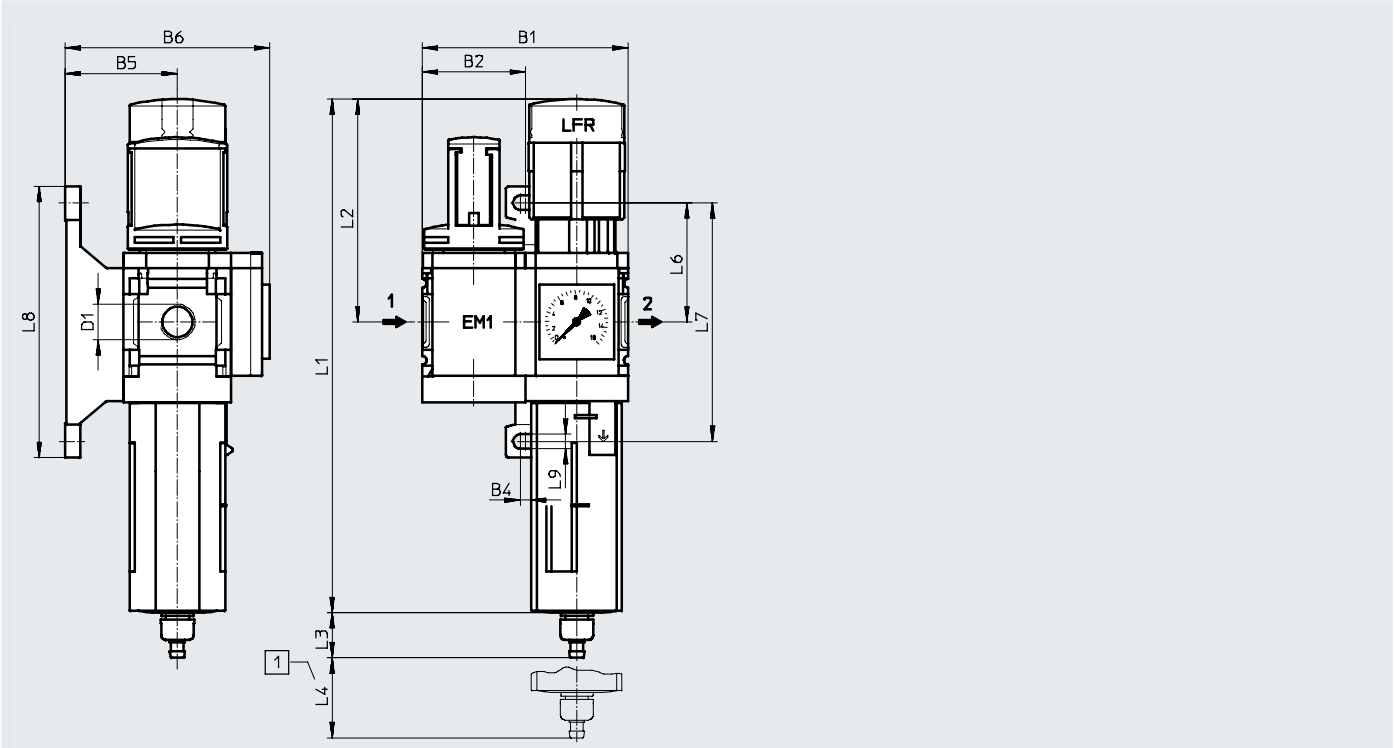
|       |                   |                   |              |              |              |              |              |              |               |
|-------|-------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
|       | L3                |                   | L4<br>[inch] | L5<br>[inch] | L6<br>[inch] | L7<br>[inch] | L8<br>[inch] | L9<br>[inch] | L10<br>[inch] |
|       | [inch]            |                   |              |              |              |              |              |              |               |
| MSB4N | 0,7 <sup>1)</sup> | 0,8 <sup>2)</sup> | 0,98         | 2,09         | 1,83         | 3,67         | 4,17         | 0,22         | 3,15          |



Dimensions

Dimensions – Combination 2 – Manually operated on/off valve, filter regulator with pressure gauge

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[1] Installation dimension

|       | B1<br>[inch] | B2<br>[inch] | B4<br>[inch] | B5<br>[inch] | B6<br>[inch] | D1      | L1<br>[inch] | L2<br>[inch] |
|-------|--------------|--------------|--------------|--------------|--------------|---------|--------------|--------------|
| MSB4N | 3,17         | 1,58         | 0,16         | 1,73         | 3,15         | 1/4 NPT | 7,91         | 3,43         |

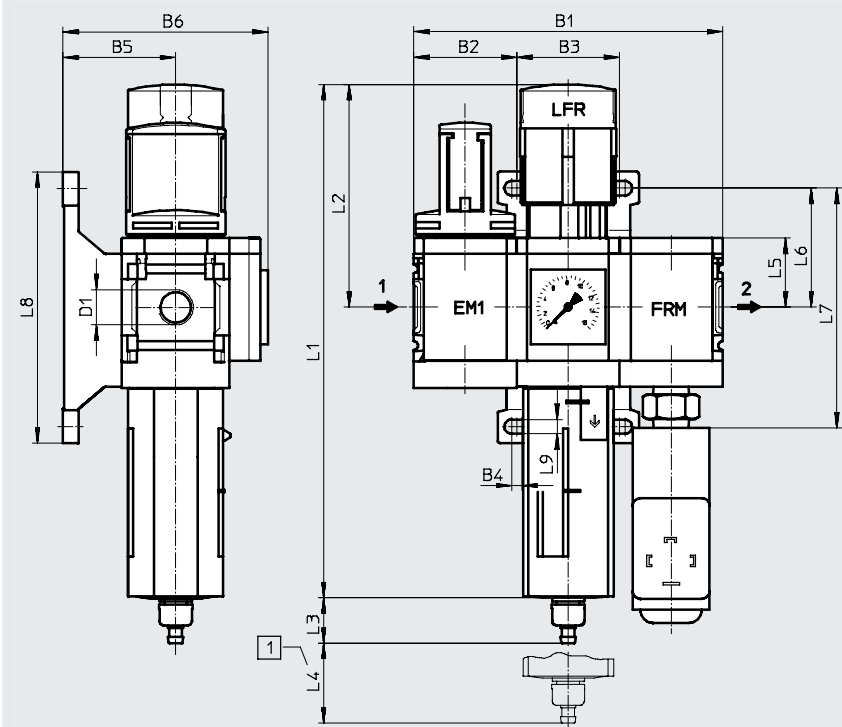
|       | L3<br>[inch]      | L4<br>[inch]      | L6<br>[inch] | L7<br>[inch] | L8<br>[inch] | L9<br>[inch] |
|-------|-------------------|-------------------|--------------|--------------|--------------|--------------|
| MSB4N | 0,7 <sup>1)</sup> | 0,8 <sup>2)</sup> | 0,98         | 1,83         | 3,67         | 0,22         |

1) Manual condensate drain  
2) Fully automatic condensate drain

Dimensions

Dimensions – Combination 3 – Manually operated on/off valve, filter regulator with pressure gauge, branching module with pressure switch

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[1] Installation dimension

|       |              |              |              |              |              |              |         |              |              |
|-------|--------------|--------------|--------------|--------------|--------------|--------------|---------|--------------|--------------|
|       | B1<br>[inch] | B2<br>[inch] | B3<br>[inch] | B4<br>[inch] | B5<br>[inch] | B6<br>[inch] | D1      | L1<br>[inch] | L2<br>[inch] |
| MSB4N | 4,75         | 1,58         | 1,58         | 0,16         | 1,73         | 3,15         | 1/4 NPT | 7,91         | 3,43         |

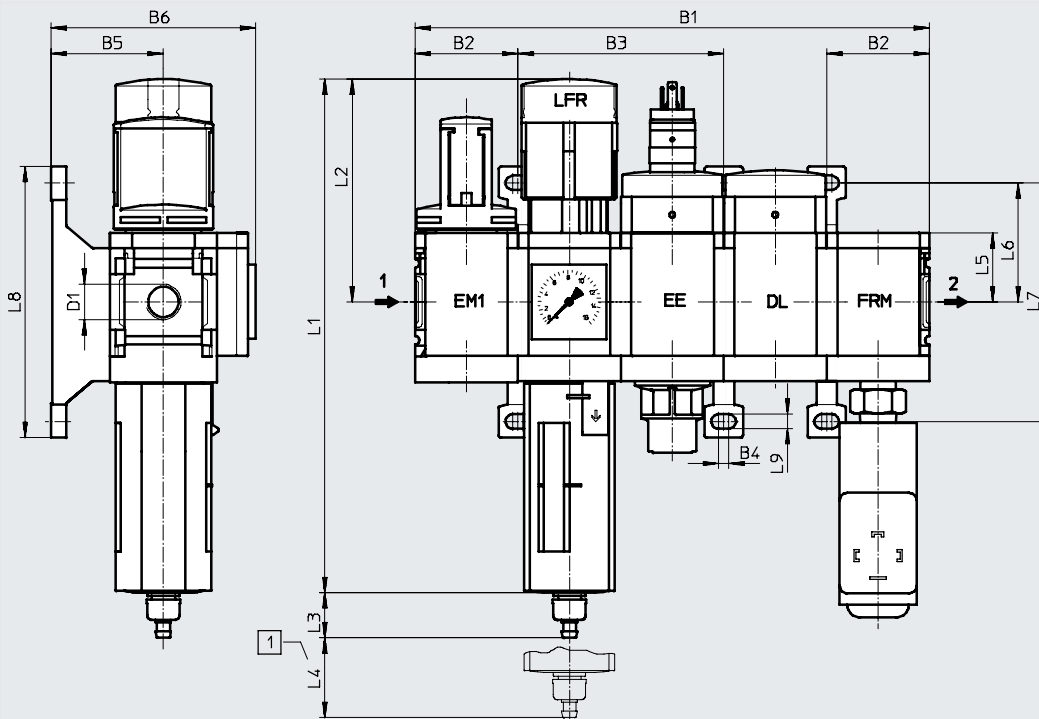
|       |                   |                   |              |              |              |              |              |              |
|-------|-------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|       | L3<br>[inch]      |                   | L4<br>[inch] | L5<br>[inch] | L6<br>[inch] | L7<br>[inch] | L8<br>[inch] | L9<br>[inch] |
| MSB4N | 0,7 <sup>1)</sup> | 0,8 <sup>2)</sup> | 0,98         | 1,06         | 1,83         | 3,69         | 4,17         | 0,22         |

1) Manual condensate drain  
2) Fully automatic condensate drain

## Dimensions

**Dimensions – Combination 4 – Manually operated on/off valve, filter regulator with pressure gauge, electrically operated on/off valve, pneumatically operated soft-start valve, branching module with pressure switch**

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[1] Installation dimension

[2] Electrical connection according to IEC 61076-2-101, plug M12x1, 2-pin for NEBA-M12

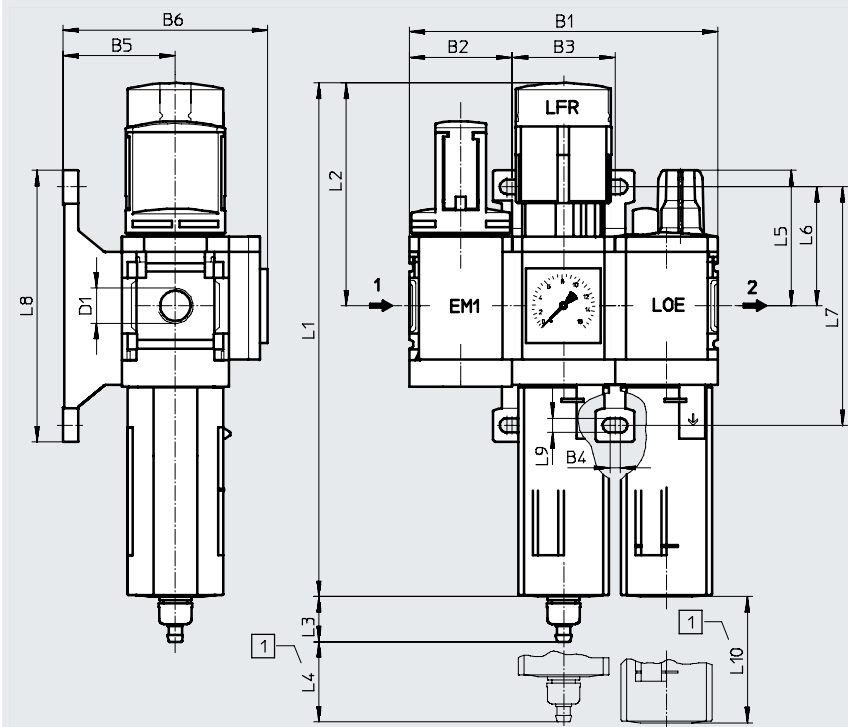
[3] Pressure sensor SDE5-D10-O-...-P-M8 with 3-pin plug M8x1, threshold value comparator, 1 switching output PNP, N/O contact

|       | B1<br>[inch]      | B2<br>[inch]      | B3<br>[inch] | B4<br>[inch] | B5<br>[inch] | B6<br>[inch] | D1           | L1<br>[inch] | L2<br>[inch] |
|-------|-------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| MSB4N | 7,91              | 1,58              | 3,17         | 0,16         | 1,73         | 3,15         | 1/4 NPT      | 7,91         | 3,43         |
|       | L3<br>[inch]      | L4<br>[inch]      | L5<br>[inch] | L6<br>[inch] | L7<br>[inch] | L8<br>[inch] | L9<br>[inch] |              |              |
| MSB4N | 0,7 <sup>1)</sup> | 0,8 <sup>2)</sup> | 0,98         | 1,06         | 1,83         | 3,67         | 4,17         | 0,22         |              |

Dimensions

Dimensions – Combination 5 – Manually operated on/off valve, filter regulator with pressure gauge, lubricator

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[1] Installation dimension

|       |              |              |              |              |              |              |         |              |              |
|-------|--------------|--------------|--------------|--------------|--------------|--------------|---------|--------------|--------------|
|       | B1<br>[inch] | B2<br>[inch] | B3<br>[inch] | B4<br>[inch] | B5<br>[inch] | B6<br>[inch] | D1      | L1<br>[inch] | L2<br>[inch] |
| MSB4N | 4,75         | 1,58         | 1,58         | 0,16         | 1,73         | 3,15         | 1/4 NPT | 7,91         | 3,43         |

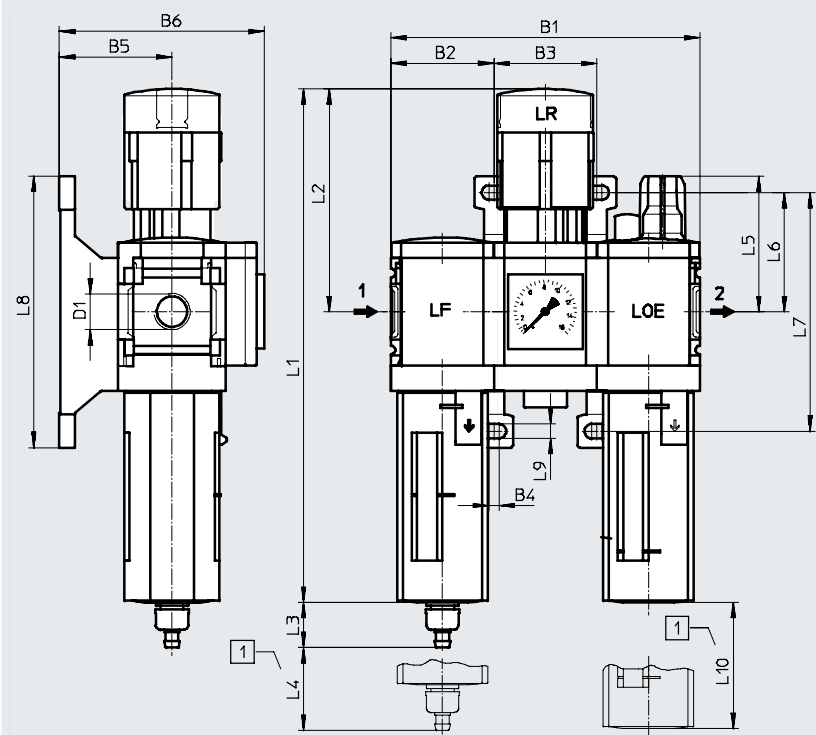
|       |                   |                   |              |              |              |              |              |              |               |
|-------|-------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
|       | L3<br>[inch]      |                   | L4<br>[inch] | L5<br>[inch] | L6<br>[inch] | L7<br>[inch] | L8<br>[inch] | L9<br>[inch] | L10<br>[inch] |
| MSB4N | 0,7 <sup>1)</sup> | 0,8 <sup>2)</sup> | 0,98         | 2,09         | 1,83         | 3,67         | 4,17         | 0,22         | 3,15          |

1) Manual condensate drain  
2) Fully automatic condensate drain

Dimensions

Dimensions – Combination 6 – Filter, pressure regulator, lubricator

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[1] Installation dimension

|       | B1<br>[inch]      | B2<br>[inch]      | B3<br>[inch] | B4<br>[inch] | B5<br>[inch] | B6<br>[inch] | D1           | L1<br>[inch] | L2<br>[inch]  |
|-------|-------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| MSB4N | 4,75              | 1,58              | 1,58         | 0,16         | 1,73         | 3,15         | 1/4 NPT      | 7,91         | 3,43          |
|       |                   |                   |              |              |              |              |              |              |               |
|       | L3<br>[inch]      |                   | L4<br>[inch] | L5<br>[inch] | L6<br>[inch] | L7<br>[inch] | L8<br>[inch] | L9<br>[inch] | L10<br>[inch] |
| MSB4N | 0,7 <sup>1)</sup> | 0,8 <sup>2)</sup> | 0,98         | 2,09         | 1,83         | 3,67         | 4,17         | 0,22         | 3,15          |

1) Manual condensate drain  
2) Fully automatic condensate drain

## Ordering data

## Ordering data – Combination 1

|                                                                                  | Pressure regulation range | Condensate drain | Grade of filtration | Product weight | Part no. | Type                  |
|----------------------------------------------------------------------------------|---------------------------|------------------|---------------------|----------------|----------|-----------------------|
|  | 1 ... 12 bar              | Manual, rotating | 40 µm               | 1,700 g        | 542295   | MSB4N-1/4:C3J1F3M1-WP |

## Ordering data – Combination 2

|                                                                                  | Pressure regulation range | Condensate drain | Grade of filtration | Product weight | Part no. | Type              |
|----------------------------------------------------------------------------------|---------------------------|------------------|---------------------|----------------|----------|-------------------|
|  | 0.5 ... 12 bar            | Fully automatic  | 5 µm                | 1,300 g        | 543571   | MSB4N-1/4:C3J4-WP |
|                                                                                  |                           |                  | 40 µm               |                | 543559   | MSB4N-1/4:C3J2-WP |
|                                                                                  | 1 ... 12 bar              | Manual, rotating | 5 µm                |                | 543565   | MSB4N-1/4:C3J3-WP |
|                                                                                  |                           |                  | 40 µm               |                | 543553   | MSB4N-1/4:C3J1-WP |
|                                                                                  |                           |                  |                     |                |          |                   |

## Ordering data – Combination 3

|                                                                                    | Pressure regulation range | Condensate drain | Grade of filtration | Product weight | Part no. | Type                |
|------------------------------------------------------------------------------------|---------------------------|------------------|---------------------|----------------|----------|---------------------|
|  | 0.3 ... 12 bar            | Fully automatic  | 5 µm                | 1,500 g        | 543562   | MSB4N-1/4:C3J3F3-WP |
|                                                                                    | 0.5 ... 12 bar            |                  | 40 µm               |                | 543556   | MSB4N-1/4:C3J2F3-WP |

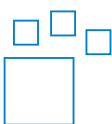
## Ordering data – Combination 4

|                                                                                    | Pressure regulation range | Condensate drain | Grade of filtration | Product weight | Part no. | Type                    |
|------------------------------------------------------------------------------------|---------------------------|------------------|---------------------|----------------|----------|-------------------------|
|  | 4 ... 9 bar               | Manual, rotating | 5 µm                | 2,200 g        | 550487   | MSB4N-1/4:C3J3D7A1F3-WP |
|                                                                                    | 4 ... 12 bar              |                  | 40 µm               | 2,000 g        | 543560   | MSB4N-1/4:C3J3D1A1F3-WP |
|                                                                                    |                           |                  |                     |                | 543548   | MSB4N-1/4:C3J1D1A1F3-WP |

## Ordering data

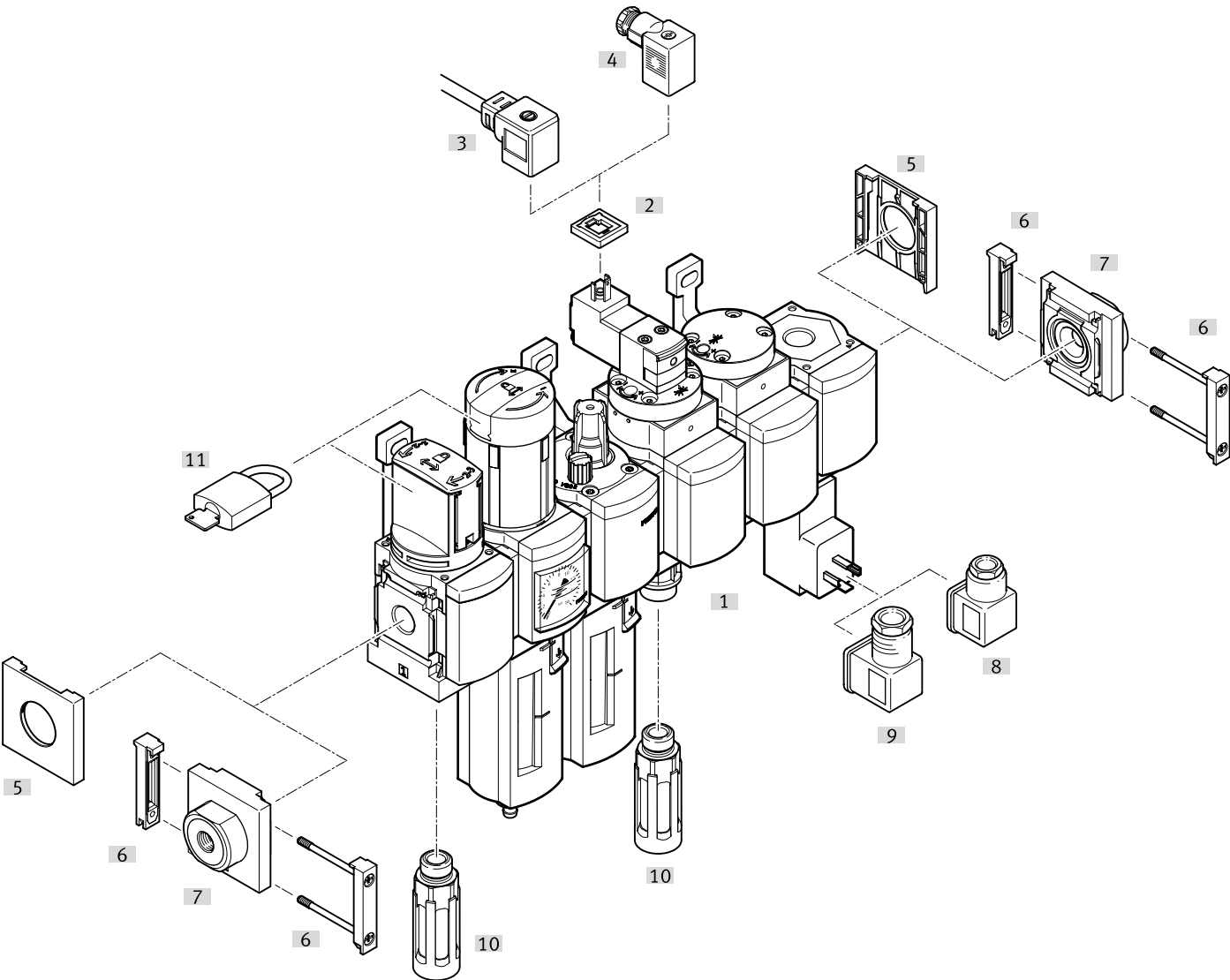
| Ordering data – Combination 5                                                     |                           |                  |                     |                |          |                     |
|-----------------------------------------------------------------------------------|---------------------------|------------------|---------------------|----------------|----------|---------------------|
|                                                                                   | Pressure regulation range | Condensate drain | Grade of filtration | Product weight | Part no. | Type                |
|  | 1 ... 12 bar              | Fully automatic  | 5 µm                | 1,500 g        | 543564   | MSB4N-1/4:C3J3M1-WP |
|                                                                                   |                           | Manual, rotating | 40 µm               |                | 543558   | MSB4N-1/4:C3J2M1-WP |
|                                                                                   |                           |                  |                     |                | 543552   | MSB4N-1/4:C3J1M1-WP |

| Ordering data – Combination 6                                                     |                           |                  |                     |                |          |                     |
|-----------------------------------------------------------------------------------|---------------------------|------------------|---------------------|----------------|----------|---------------------|
|                                                                                   | Pressure regulation range | Condensate drain | Grade of filtration | Product weight | Part no. | Type                |
|  | 1 ... 12 bar              | Fully automatic  | 5 µm                | 1,000 g        | 541434   | MSB4N-1/4:H4N3M1-WP |
|                                                                                   |                           | Manual, rotating | 40 µm               |                | 541431   | MSB4N-1/4:H1N3M1-WP |
|                                                                                   |                           |                  |                     |                | 541432   | MSB4N-1/4:H2N3M1-WP |

| Ordering information – Modular product system                                       |                 |          |       |
|-------------------------------------------------------------------------------------|-----------------|----------|-------|
|                                                                                     | Short type code | Part no. | Type  |
|  | MSB4N           | 532306   | MSB4N |

Peripherals

Peripherals overview

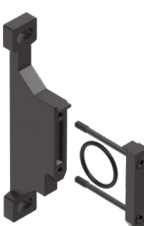


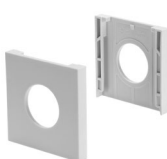
| Accessories                           |                                | → Link               |
|---------------------------------------|--------------------------------|----------------------|
| Type/order code                       | Description                    |                      |
| [1] Service unit combination MSB4N    |                                | <a href="#">msb4</a> |
| [2] Illuminating seal MEB-LD          |                                | <a href="#">26</a>   |
| [3] Plug socket with cable KMEB       |                                | <a href="#">26</a>   |
| [4] Plug socket MSSD-EB               |                                | <a href="#">27</a>   |
| [5] Cover cap MS4-END                 |                                | <a href="#">25</a>   |
| [6] Module connector MS4-MV1          |                                | <a href="#">25</a>   |
| [7] Connecting plate SET MS4-AQ...    | Order code [AG...]             | <a href="#">25</a>   |
| [8] Plug socket MSSD-C-4P             |                                | <a href="#">27</a>   |
| [9] Angled plug socket PEV-1/4-WD-LED |                                | <a href="#">27</a>   |
| [10] Silencer U                       |                                | <a href="#">27</a>   |
| [11] Padlock LRVS-D                   |                                | <a href="#">28</a>   |
| [12] Mounting bracket MS4-WP...       | Order code [WP...] (not shown) | <a href="#">25</a>   |



## Accessories

| Module connector MS4-MV1                                                          |      |                                 |                        |                |                |                |
|-----------------------------------------------------------------------------------|------|---------------------------------|------------------------|----------------|----------------|----------------|
|                                                                                   | Size | Material module connector       | LABS (PWIS) conformity | Product weight | Part no.       | Type           |
|  | 4    | POM, High-alloy stainless steel | VDMA24364-B1/B2-L      | 13 g           | <b>8119201</b> | <b>MS4-MV1</b> |

| Mounting bracket MS4-WP...                                                        |      |                    |                        |                |               |                   |
|-----------------------------------------------------------------------------------|------|--------------------|------------------------|----------------|---------------|-------------------|
|                                                                                   | Size | Material bracket   | LABS (PWIS) conformity | Product weight | Part no.      | Type              |
|  | 4    | Die-cast aluminium | VDMA24364-B1/B2-L      |                | <b>558869</b> | <b>MS4-WPE</b>    |
|                                                                                   |      |                    |                        | 39 g           | <b>541554</b> | <b>MS4-WP-EX</b>  |
|                                                                                   |      |                    |                        |                | <b>532184</b> | <b>MS4-WP</b>     |
|                                                                                   |      |                    |                        | 45 g           | <b>526060</b> | <b>MS4-WPM-D</b>  |
|                                                                                   |      |                    |                        | 55 g           | <b>526063</b> | <b>MS4-WPB</b>    |
|                                                                                   |      |                    |                        |                | <b>541552</b> | <b>MS4-WPB-EX</b> |
|                                                                                   |      |                    |                        |                | <b>526061</b> | <b>MS4-WPM-2D</b> |

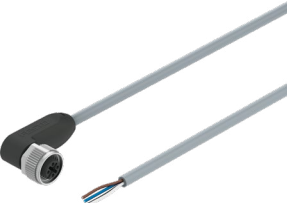
| Cover cap MS4-END                                                                   |      |                  |                        |          |         |
|-------------------------------------------------------------------------------------|------|------------------|------------------------|----------|---------|
|                                                                                     | Size | Material housing | LABS (PWIS) conformity | Part no. | Type    |
|  | 4    | Reinforced PA    | VDMA24364-B1/B2-L      | 538779   | MS4-END |

| Connecting plate SET MS4-AQ...                                                      |      |                              |                    |                |               |                 |
|-------------------------------------------------------------------------------------|------|------------------------------|--------------------|----------------|---------------|-----------------|
|                                                                                     | Size | Pneumatic connection, port 1 | Material sub-base  | Product weight | Part no.      | Type            |
|  | 4    | 1/8 NPT                      | Die-cast aluminium | 128 g          | <b>526065</b> | <b>MS4N-AQK</b> |
|                                                                                     |      | 1/4 NPT                      |                    |                | <b>526066</b> | <b>MS4N-AQN</b> |
|                                                                                     |      | 3/8 NPT                      |                    |                | <b>526067</b> | <b>MS4N-AQP</b> |

| Connecting cable NEBA, straight                                                     |                                           |                                           |                                                      |              |                |                               |
|-------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|------------------------------------------------------|--------------|----------------|-------------------------------|
|                                                                                     | Electrical connection 1, connector system | Electrical connection 2, connector system | Electrical connection 2, number of connections/cores | Cable length | Part no.       | Type                          |
|  | M12x1, A-coded to EN 61076-2-101          | Open end                                  | 4                                                    | 2.5 m        | <b>8078239</b> | <b>NEBA-M12G5-U-2.5-N-LE4</b> |

## Accessories

| Connecting cable NEBA, straight                                                  |                                           |                                           |                                                      |              |          |                       |
|----------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|------------------------------------------------------|--------------|----------|-----------------------|
|                                                                                  | Electrical connection 1, connector system | Electrical connection 2, connector system | Electrical connection 2, number of connections/cores | Cable length | Part no. | Type                  |
|  | M12x1, A-coded to EN 61076-2-101          | Open end                                  | 4                                                    | 5 m          | 8078240  | NEBA-M12G5-U-5-N-LE4  |
|                                                                                  | M8x1, A-coded, to EN 61076-2-104          |                                           | 3                                                    | 2.5 m        | 8078223  | NEBA-M8G3-U-2.5-N-LE3 |
|                                                                                  |                                           |                                           |                                                      | 5 m          | 8078224  | NEBA-M8G3-U-5-N-LE3   |

| Connecting cable NEBA, angled                                                     |                                           |                                           |                                                      |              |          |                        |
|-----------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|------------------------------------------------------|--------------|----------|------------------------|
|                                                                                   | Electrical connection 1, connector system | Electrical connection 2, connector system | Electrical connection 2, number of connections/cores | Cable length | Part no. | Type                   |
|  | M12x1, A-coded to EN 61076-2-101          | Open end                                  | 4                                                    | 2.5 m        | 8078248  | NEBA-M12W5-U-2.5-N-LE4 |
|                                                                                   |                                           |                                           |                                                      | 5 m          | 8078249  | NEBA-M12W5-U-5-N-LE4   |
|                                                                                   | M8x1, A-coded, to EN 61076-2-104          |                                           | 3                                                    | 2.5 m        | 8078230  | NEBA-M8W3-U-2.5-N-LE3  |
|                                                                                   |                                           |                                           |                                                      | 5 m          | 8078231  | NEBA-M8W3-U-5-N-LE3    |

| Illuminating seal MEB-LD                                                           |                              |                              |                |          |                |
|------------------------------------------------------------------------------------|------------------------------|------------------------------|----------------|----------|----------------|
|                                                                                    | Operational voltage range DC | Nominal operating voltage AC | Product weight | Part no. | Type           |
|  |                              | 230 V                        | 0.6 g          | 151718   | MEB-LD-230AC   |
|                                                                                    | 12 ... 24 V                  |                              |                | 151717   | MEB-LD-12-24DC |

| Plug socket with cable KMEB 230V AC                                                 |                              |              |                |          |                  |
|-------------------------------------------------------------------------------------|------------------------------|--------------|----------------|----------|------------------|
|                                                                                     | Nominal operating voltage AC | Cable length | Product weight | Part no. | Type             |
|  | 230 V                        | 2.5 m        | 125 g          | 151690   | KMEB-1-230AC-2.5 |
|                                                                                     |                              | 5 m          | 230 g          | 151691   | KMEB-1-230AC-5   |

## Accessories

| Plug socket with cable KMEB 24V DC                                                |                              |              |                |          |                   |  |
|-----------------------------------------------------------------------------------|------------------------------|--------------|----------------|----------|-------------------|--|
|                                                                                   | Nominal operating voltage DC | Cable length | Product weight | Part no. | Type              |  |
|  | 24 V                         | 2.5 m        | 120 g          | 547268   | KMEB-3-24-2.5-LED |  |
|                                                                                   |                              |              |                | 547270   | KMEB-3-24-2.5     |  |
|                                                                                   |                              | 5 m          | 125 g          | 151688   | KMEB-1-24-2.5-LED |  |
|                                                                                   |                              |              | 230 g          | 547271   | KMEB-3-24-5       |  |
|                                                                                   |                              |              |                | 151689   | KMEB-1-24-5-LED   |  |
|                                                                                   |                              |              |                | 547269   | KMEB-3-24-5-LED   |  |
|                                                                                   |                              | 10 m         | 460 g          | 193457   | KMEB-1-24-10-LED  |  |

| Plug socket MSSD-EB                                                               |                                                                                                                     |               |                |          |                         |  |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------|----------------|----------|-------------------------|--|
|                                                                                   | Electrical connection                                                                                               | Cable fitting | Product weight | Part no. | Type                    |  |
|  | 3-pin, Socket, Angled socket, Type C, To DIN EN 175301-803, To DIN EN 61984, Square design MSEB, Square design MSN2 | M12x1.5       | 11 g           | 570367   | MSSD-EB-M12-24VDC-SD-EX |  |
|                                                                                   |                                                                                                                     | Pg7           |                | 539712   | MSSD-EB-M12             |  |
|                                                                                   |                                                                                                                     |               |                | 151687   | MSSD-EB                 |  |
|                                                                                   |                                                                                                                     |               |                |          |                         |  |

| Plug socket MSSD-C-4P                                                               |                                                                                           |               |                |                |          |           |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------|----------------|----------------|----------|-----------|
|                                                                                     | Electrical connection                                                                     | Cable fitting | Cable diameter | Product weight | Part no. | Type      |
|  | 3-pin, Angled socket, Type A, To DIN EN 175301-803, Square design MSC, Square design MSN1 | Pg9           | 6 ... 8 mm     | 22 g           | 171157   | MSSD-C-4P |

| Angled plug socket PEV-1/4-WD-LED- ...                                              |                       |                             |                              |                              |          |                    |
|-------------------------------------------------------------------------------------|-----------------------|-----------------------------|------------------------------|------------------------------|----------|--------------------|
|                                                                                     | Electrical connection | Switching status indication | Operational voltage range AC | Operational voltage range DC | Part no. | Type               |
|  |                       | Yellow LED, Green LED       |                              | 15 ... 30 V                  | 164274   | PEV-1/4-WD-LED-24  |
|                                                                                     |                       |                             | 150 ... 230 V                | 140 ... 180 V                | 164275   | PEV-1/4-WD-LED-230 |

| Silencer U                                                                          |                      |                      |                         |                |          |         |
|-------------------------------------------------------------------------------------|----------------------|----------------------|-------------------------|----------------|----------|---------|
|                                                                                     | Pneumatic connection | Sound pressure level | Flow rate to atmosphere | Product weight | Part no. | Type    |
|  | G1/4                 | 76 dB(A)             | 3,300 l/min             | 7.7 g          | 2316     | U-1/4   |
|                                                                                     |                      | 80 dB(A)             | 2,440 l/min             | 17 g           | 6842     | U-1/4-B |

Accessories

|                                                                                   |                        |                |          |        |
|-----------------------------------------------------------------------------------|------------------------|----------------|----------|--------|
| Padlock LRV5-D                                                                    |                        |                |          |        |
|                                                                                   | LABS (PWIS) conformity | Product weight | Part no. | Type   |
|  | VDMA24364-B1/B2-L      | 120 g          | 193786   | LRVS-D |