

## Membrane air dryer MS6N-LDM1

**FESTO**

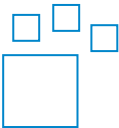


Characteristics

**At a glance**

The membrane air dryer removes dissolved water molecules from compressed air systems. The purge flow rate (purge air) is controlled inside the diaphragm cartridge by a fixed preset orifice plate. The membrane air dryer is maintenance-free, no adjustments are required.

**Ordering data - modular system** Link [ms6n-ldm1](#)

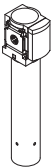


Configurable product  
This product and all its product options can be ordered online via the configurator.

**Purge air**

As standard, the membrane air dryer discharges its purge air unobstructed into the environment through openings in the housing. Alternatively, the purge air can also be ducted with a purge ring.

[PAC]      Ducted



Purge air is ducted and discharged via plastic tubing.

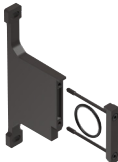
**Type of mounting**

[WB]      Mounting centrally at rear (wall mounting top and bottom), connecting plates not required



- For wall mounting an individual device

[WP]      Mounting bracket basic design



- In combination with additional service unit component with wall mounting
- In combination with connecting plate MS6-AQ... for mounting an individual device on a wall
- Same wall distance for combinations of series MS4 and MS6

[WPM]      Mounting bracket for hooking in service unit components



- In combination with additional service unit component with wall mounting
- In combination with connecting plate MS6-AQ... for mounting an individual device on a wall
- Fast hooking and unhooking
- For mounting the pressure regulators with rotary knob facing downwards

## Type code

|      |                            |  |
|------|----------------------------|--|
| 001  | Series                     |  |
| MS   | MS series                  |  |
| 002  | Size                       |  |
| 6    | Grid dimension 62 mm       |  |
| 003  | Thread type                |  |
| N    | NPT thread                 |  |
| 004  | Function                   |  |
| LDM1 | Membrane air dryer         |  |
| 005  | Pneumatic connection, inch |  |
| 1/4  | Female thread NPT 1/4      |  |
| 3/8  | Female thread NPT 3/8      |  |
| 1/2  | Female thread NPT 1/2      |  |
| AQN  | Sub-base NPT1/4            |  |
| AQP  | Sub-base NPT3/8            |  |
| AQR  | Sub-base NPT1/2            |  |
| AQS  | Sub-base NPT3/4            |  |

|     |                                                                                           |  |
|-----|-------------------------------------------------------------------------------------------|--|
| 006 | Flow cartridge                                                                            |  |
| P20 | 200 l/min                                                                                 |  |
| P30 | 300 l/min                                                                                 |  |
| P40 | 400 l/min                                                                                 |  |
| 007 | Purge air                                                                                 |  |
|     | Unducted                                                                                  |  |
| PAC | Ducted                                                                                    |  |
| 008 | Type of mounting                                                                          |  |
|     | Without mounting bracket                                                                  |  |
| WB  | Mounting centrally at rear (wall mounting top and bottom), connecting plates not required |  |
| WP  | Mounting bracket basic design                                                             |  |
| WPM | Mounting bracket for hooking in service unit components                                   |  |
| 009 | Flow direction                                                                            |  |
|     | Flow direction from left to right                                                         |  |
| Z   | Flow direction from right to left                                                         |  |

# Datasheet

## General technical data

|                              |                                                    |
|------------------------------|----------------------------------------------------|
| Size                         | 6                                                  |
| Pneumatic connection, port 1 | 1/4 NPT, 3/8 NPT, 1/2 NPT                          |
| Pneumatic connection, port 2 | 1/4 NPT, 3/8 NPT, 1/2 NPT                          |
| Design                       | Membrane air dryer                                 |
| Type of mounting             | Either:<br>Inline installation<br>With accessories |
| Mounting position            | Vertical +/-5°                                     |
| Air purity class at output   | Compressed air to ISO 8573-1:2010 [1:3:2]          |

## Standard nominal flow rate q<sub>n</sub>

|                                                          |           |                   |           |
|----------------------------------------------------------|-----------|-------------------|-----------|
| Pneumatic connection, port 1                             | 1/4 NPT   | 3/8 NPT           | 1/2 NPT   |
| Standard nominal flow rate<br>(standardised to DIN 1343) | 200 l/min | 200 ... 400 l/min | 400 l/min |

## Function



## Operating and environmental conditions

|                                                            |                                           |
|------------------------------------------------------------|-------------------------------------------|
| Operating pressure                                         | 3 ... 12.5 bar                            |
| Operating medium                                           | Compressed air to ISO 8573-1:2010 [1:4:2] |
| Note on operating and pilot medium                         | Lubricated operation not possible         |
| Pressure dew point drop                                    | 20 K                                      |
| Ambient temperature                                        | 2 ... 50°C                                |
| Media temperature                                          | 2 ... 50°C                                |
| Storage temperature                                        | -20 ... 60°C                              |
| CE mark (see declaration of conformity) <sup>1)</sup>      | –                                         |
| UKCA marking (see declaration of conformity) <sup>2)</sup> | –                                         |
| Corrosion resistance class<br>CRC <sup>3)</sup>            | 2 - Moderate corrosion stress             |

1) More information [www.festo.com/catalogue/ms6-ldm](http://www.festo.com/catalogue/ms6-ldm) → Support/Downloads.

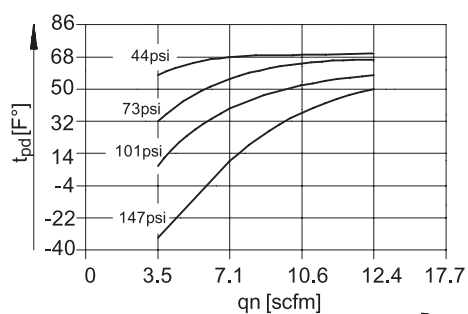
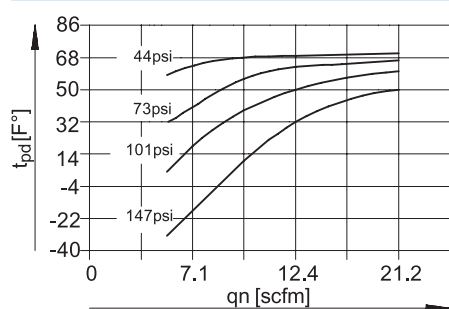
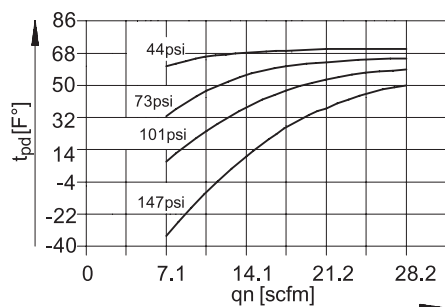
2) More information [www.festo.com/catalogue/ms6-ldm](http://www.festo.com/catalogue/ms6-ldm) → Support/Downloads.

3) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

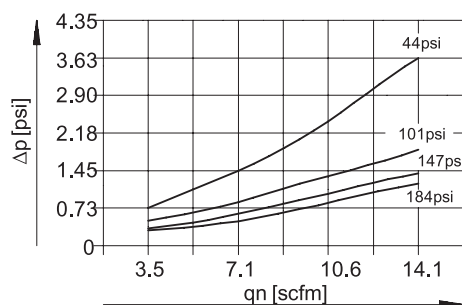
## Materials

|                        |                         |
|------------------------|-------------------------|
| Material housing       | Die-cast aluminium      |
| Material bowl          | Wrought aluminium alloy |
| Note on materials      | RoHS compliant          |
| LABS (PWIS) conformity | VDMA24364-B2-L          |

## Datasheet

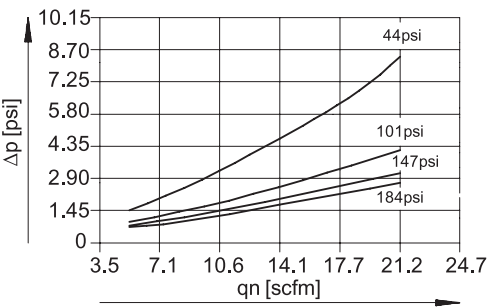
Pressure dew point t<sub>pd</sub> (output) as a function of the standard flow rate at output qn (MS6N-LDM1-...-P20)Pressure dew point t<sub>pd</sub> (output) as a function of the standard flow rate at output qn (MS6N-LDM1-...-P30)Pressure dew point t<sub>pd</sub> (output) as a function of the standard flow rate at output qn (MS6N-LDM1-...-P40)

Differential pressure Δp as a function of the standard flow rate at output qn (MS6N-LDM1-...-P20)

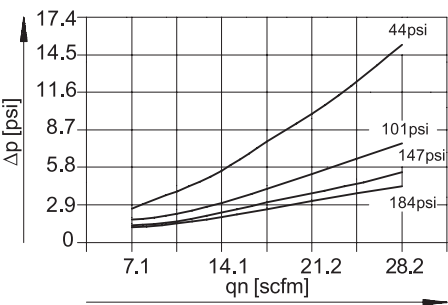


Datasheet

Differential pressure  $\Delta p$  as a function of the standard flow rate at output  $q_n$  (MS6N-LDM1-...-P30)

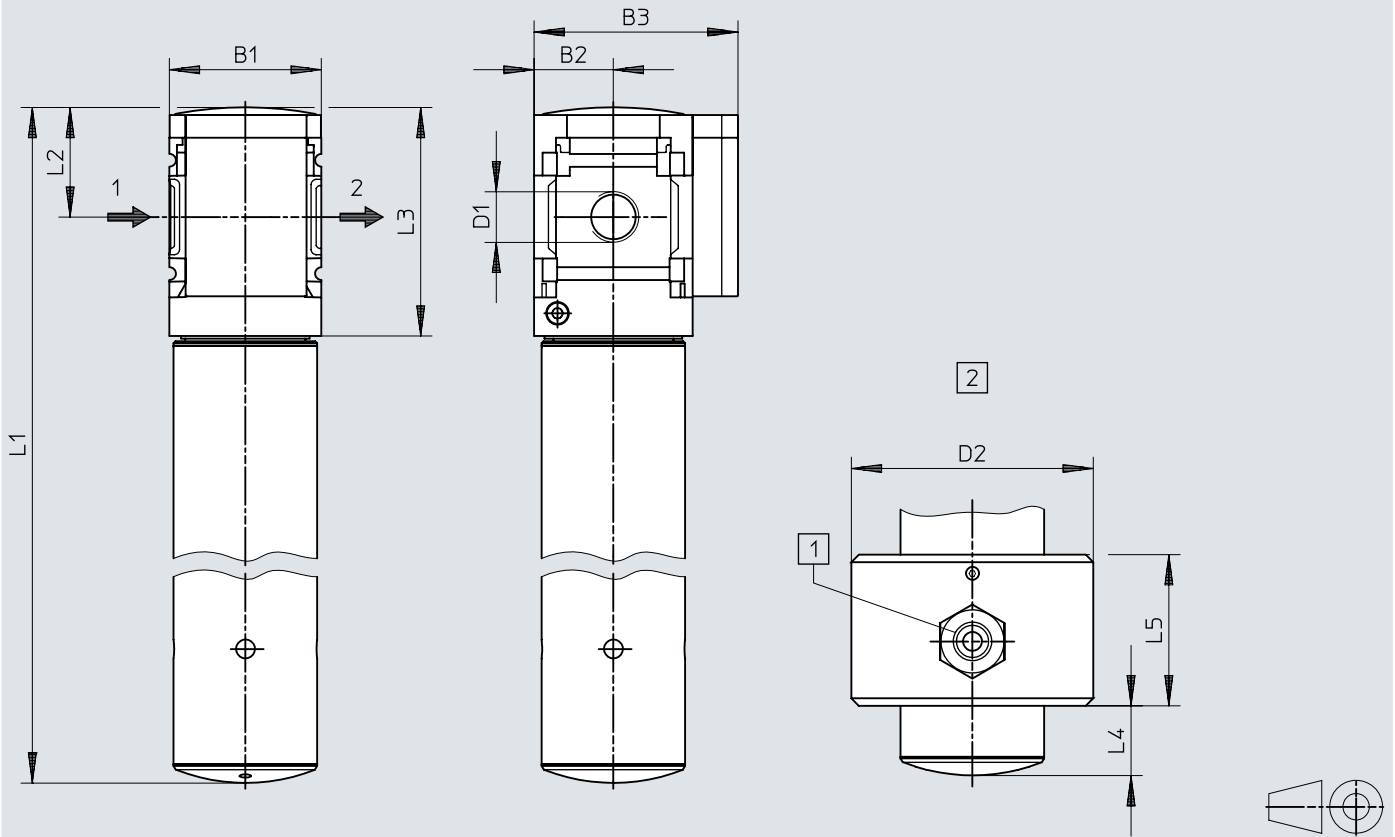


Differential pressure  $\Delta p$  as a function of the standard flow rate at output  $q_n$  (MS6N-LDM1-...-P40)



# Dimensions

## Dimensions – Membrane air dryer

[Download CAD data](#) [www.festo.com](http://www.festo.com)


[1] Push-in fitting QS-1/4-10 (included in the scope of delivery) for tubing with O.D. 10 mm

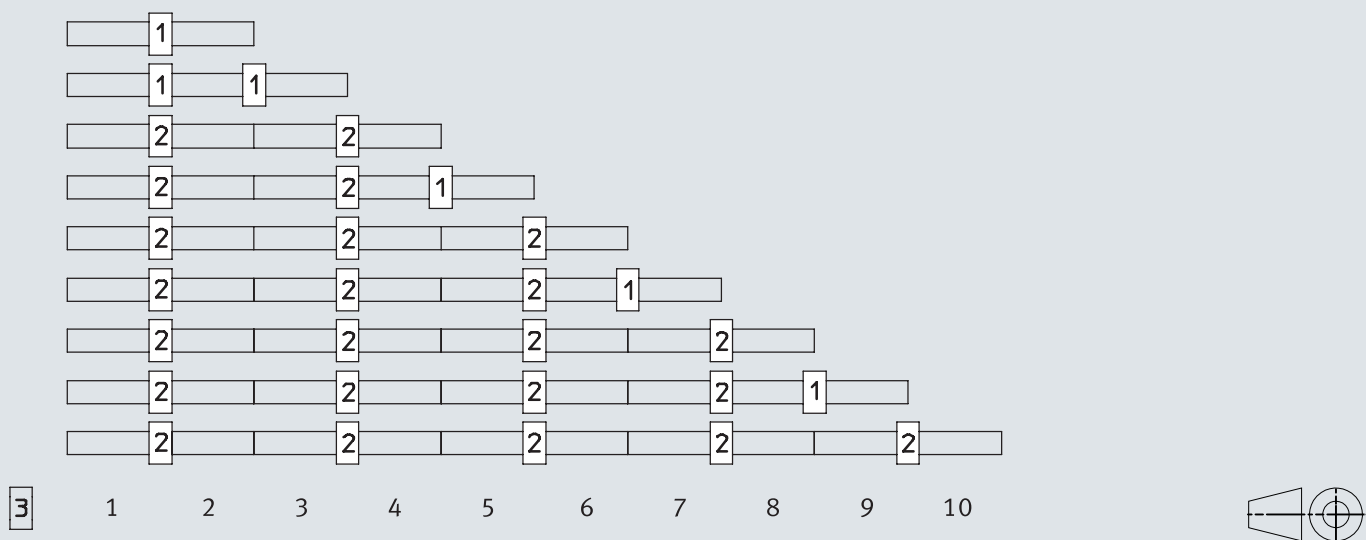
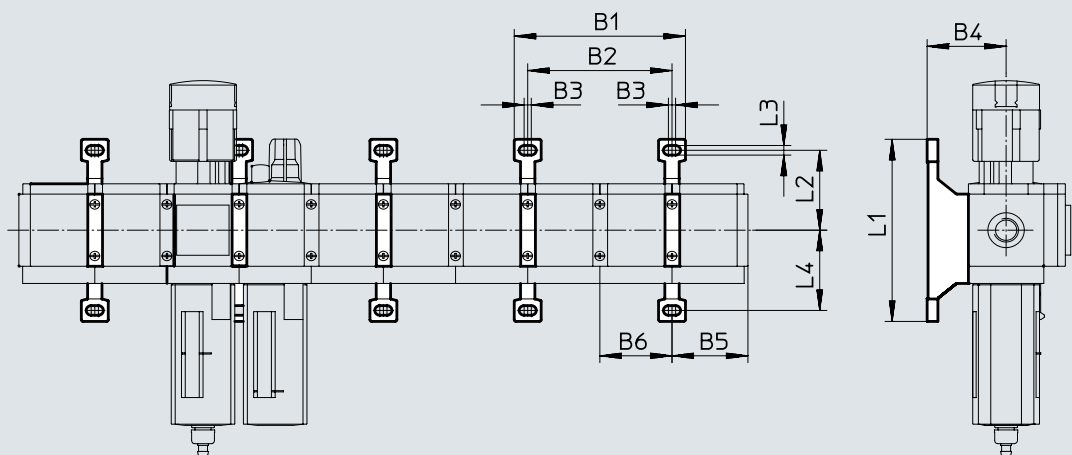
[2] [PAC] Ducted purge air

|                   | B1<br>[inch] | B2<br>[inch] | B3<br>[inch] | D1      | D2<br>[inch] | L1<br>[inch] | L2<br>[inch] | L3<br>[inch] | L4<br>[inch] | L5<br>[inch] |
|-------------------|--------------|--------------|--------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|
| MS6N-LDM1-1/4-P20 | 2,44         | 1,22         | 2,99         | 1/4 NPT | 3,45         | 13,58        | 1,65         | 3,43         | 1,34         | 1,57         |
| MS6N-LDM1-1/4-P30 |              |              |              |         |              | 16,34        |              |              |              |              |
| MS6N-LDM1-1/4-P40 |              |              |              |         |              | 18,70        |              |              |              |              |
| MS6N-LDM1-3/8-P20 |              |              |              | 3/8 NPT |              | 13,58        |              |              |              |              |
| MS6N-LDM1-3/8-P30 |              |              |              |         |              | 16,34        |              |              |              |              |
| MS6N-LDM1-3/8-P40 |              |              |              |         |              | 18,70        |              |              |              |              |
| MS6N-LDM1-1/2-P20 |              |              |              | 1/2 NPT |              | 13,58        |              |              |              |              |
| MS6N-LDM1-1/2-P30 |              |              |              |         |              | 16,34        |              |              |              |              |
| MS6N-LDM1-1/2-P40 |              |              |              |         |              | 18,70        |              |              |              |              |

1) Note: This product complies with ISO 1179-1 and ISO 228-1.

Dimensions

Dimensions – Download CAD data [www.festo.com](http://www.festo.com)

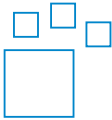


- [1] Mounting bracket WP, WPB, WPE or WPM-D
- [2] Mounting bracket WP, WPB, WPE or WPM-2D
- [3] Number of components

|              | B1 <sup>1)</sup><br>[inch] | B2 <sup>1)</sup><br>[inch] | B3<br>[inch] | B4<br>[inch] | B5 <sup>1)2)</sup><br>[inch] | B6 <sup>1)</sup><br>[inch] | L1<br>[inch] | L2<br>[inch] | L3<br>[inch] | L4<br>[inch] |
|--------------|----------------------------|----------------------------|--------------|--------------|------------------------------|----------------------------|--------------|--------------|--------------|--------------|
| MS6-WP       | 5,55                       | 4,88                       | 0,18         | 2,13         | 2,54                         | 2,44                       | 6,22         | 2,80         | 0,26         | 2,80         |
| MS6-WPB/WPE  |                            |                            |              | 3,56         |                              |                            |              |              |              |              |
| MS6-WPM-...D | 6,61                       | 5,43                       | 0,69         | 2,13         | 2,68                         | 2,72                       | 3,88         | 1,63         |              | 1,63         |

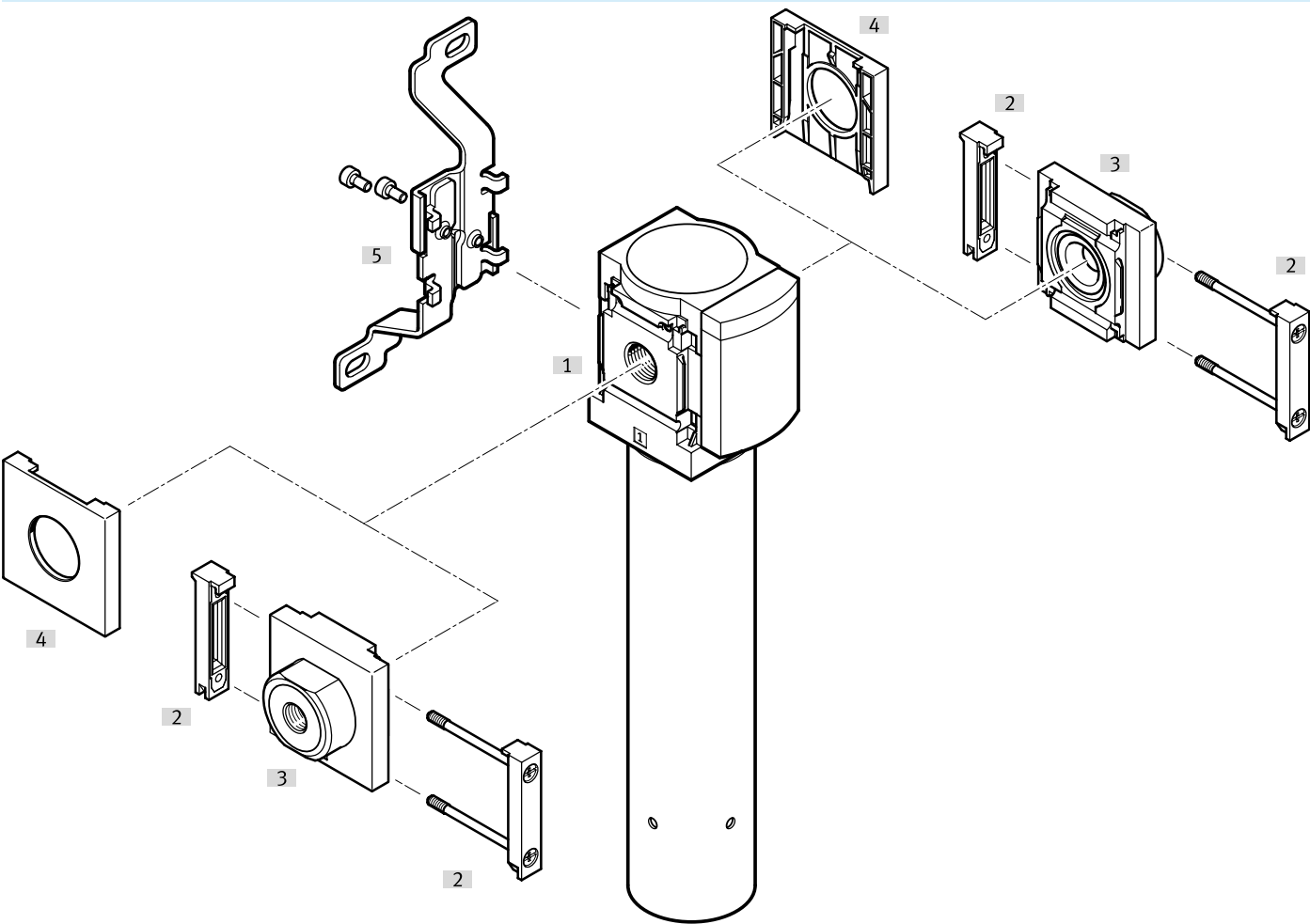
## Ordering data

| Ordering data                                                                     |                              |                |                    |                |          |                     |
|-----------------------------------------------------------------------------------|------------------------------|----------------|--------------------|----------------|----------|---------------------|
|                                                                                   | Pneumatic connection, port 1 | Flow cartridge | Flow direction     | Product weight | Part no. | Type                |
|  | 1/4 NPT                      | 200 l/min      | From left to right | 1.05 kg        | 543652   | MS6N-LDM1-1/4-P20   |
|                                                                                   | 3/8 NPT                      |                |                    |                | 543654   | MS6N-LDM1-3/8-P20   |
|                                                                                   | 1/2 NPT                      | 400 l/min      | From right to left | 1.3 kg         | 543661   | MS6N-LDM1-3/8-P40-Z |
|                                                                                   |                              |                | From left to right |                | 543662   | MS6N-LDM1-1/2-P40   |
|                                                                                   |                              |                | From right to left |                | 543663   | MS6N-LDM1-1/2-P40-Z |

| Ordering data – Modular product system                                            |                 |          |           |
|-----------------------------------------------------------------------------------|-----------------|----------|-----------|
|                                                                                   | Short type code | Part no. | Type      |
|  | MS6N-LDM1       | 543639   | MS6N-LDM1 |

Peripherals

Peripherals overview



| Accessories                             |                                                                      | → Link                    |
|-----------------------------------------|----------------------------------------------------------------------|---------------------------|
| Type/order code                         | Description                                                          |                           |
| [1] Membrane air dryer MS6N-LDM1        |                                                                      | <a href="#">ms6n-ldm1</a> |
| [2] Module connector MS6-MV1            | For device combinations and individual devices with connecting plate | <a href="#">11</a>        |
| [3] Connecting plate SET MS6-AQ...      | Order code [AQ...]; for device combinations                          | <a href="#">11</a>        |
| [4] Cover cap MS6-END                   | For devices without connecting plate                                 | <a href="#">12</a>        |
| [5] Mounting bracket MS6-WB             | Order code [WR]; for single device                                   | <a href="#">11</a>        |
| [6] Mounting bracket MS6-WP/WPB/WPE/WPM | Not shown                                                            | <a href="#">11</a>        |

## Accessories

| Module connector MS6-MV1                                                          |      |                |          |         |
|-----------------------------------------------------------------------------------|------|----------------|----------|---------|
|                                                                                   | Size | Product weight | Part no. | Type    |
|  | 6    | 33 g           | 8119204  | MS6-MV1 |
|                                                                                   |      |                |          |         |
|                                                                                   |      |                |          |         |
|                                                                                   |      |                |          |         |

| Mounting bracket MS6-WB                                                           |      |                |          |        |
|-----------------------------------------------------------------------------------|------|----------------|----------|--------|
|                                                                                   | Size | Product weight | Part no. | Type   |
|  | 6    | 121 g          | 532196   | MS6-WB |
|                                                                                   |      |                |          |        |
|                                                                                   |      |                |          |        |
|                                                                                   |      |                |          |        |

| Mounting bracket MS6-WP...                                                          |      |                |          |            |
|-------------------------------------------------------------------------------------|------|----------------|----------|------------|
|                                                                                     | Size | Product weight | Part no. | Type       |
|  | 6    | 76 g           | 532195   | MS6-WP     |
|                                                                                     |      | 115 g          | 526074   | MS6-WPB    |
|                                                                                     |      | 144 g          | 526073   | MS6-WPM-D  |
|                                                                                     |      | 154 g          | 532186   | MS6-WPM-2D |
|                                                                                     |      |                |          |            |

| Connecting plate-SET MS6-AG...                                                      |      |                                 |                |          |          |
|-------------------------------------------------------------------------------------|------|---------------------------------|----------------|----------|----------|
|                                                                                     | Size | Pneumatic connection,<br>port 1 | Product weight | Part no. | Type     |
|  | 6    | 1/4 NPT                         | 300 g          | 526076   | MS6N-AQN |
|                                                                                     |      | 3/8 NPT                         |                | 526077   | MS6N-AQP |
|                                                                                     |      | 1/2 NPT                         |                | 526078   | MS6N-AQR |
|                                                                                     |      | 3/4 NPT                         |                | 526079   | MS6N-AQS |
|                                                                                     |      |                                 |                |          |          |

Accessories

|                                                                                  |      |          |         |
|----------------------------------------------------------------------------------|------|----------|---------|
| Cover cap MS6-END                                                                |      |          |         |
|                                                                                  | Size | Part no. | Type    |
|  | 6    | 538780   | MS6-END |