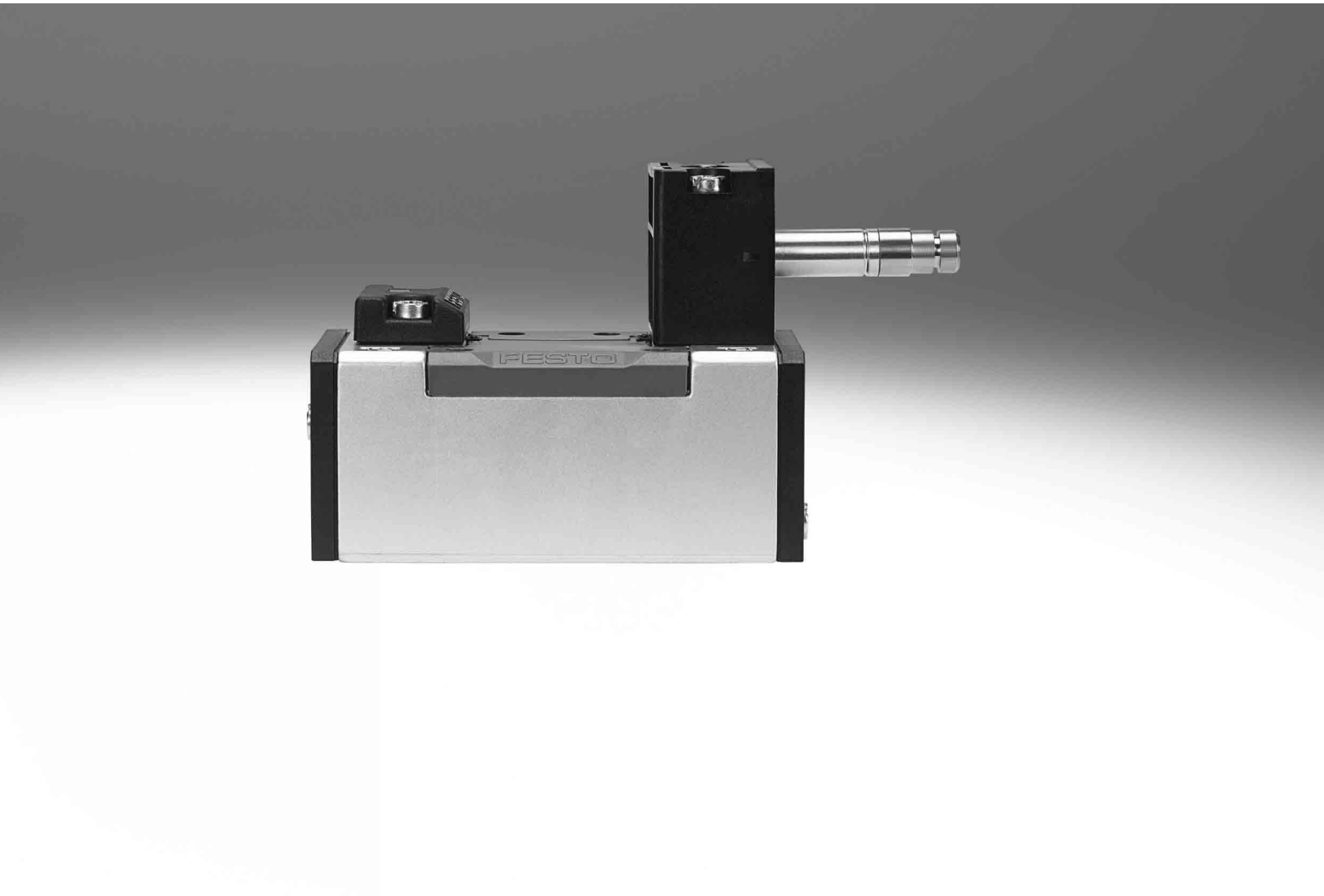
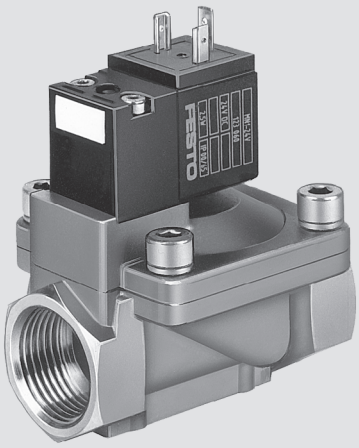
# Solenoid valves MN1H-MS, brass version



# Solenoid valves MN1H-MS, brass design

Key features

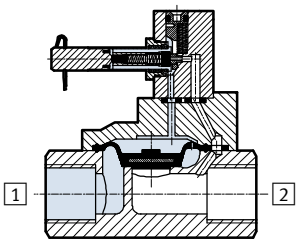


## Function

When the solenoid is energised, the valve is actuated.

The valve MN1H-2-1½-MS is equipped with adjustable closing cushioning.

1 Supply port
2 Working or outlet line

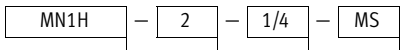



- Note

The diaphragm opens briefly when pressure is connected.

# Solenoid valves MN1H-MS, brass design

Type codes




| Type | |
|---|---|
| MN1H | Single pilot, for N1 solenoid coil |

| Valve function | |
|---|---|
| 2 | 2/2-way valve |

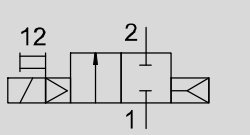
| Connection, valve | |
|---|---|
| 1/4 | G 1/4 |
| 3/8 | G 3/8 |
| 1/2 | G 1/2 |
| 3/4 | G 3/4 |
| 1 | G 1 |
| 1 1/2 | G 1 1/2 |

| Housing material | |
|---|---|
| MS | Brass |

# Solenoid valves MN1H-MS, brass design

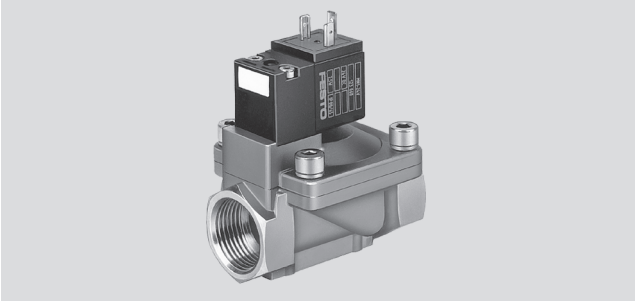
Technical data

Function




Flow rate
2000 ... 30500 l/min

Voltage
24 V DC
110, 230 V AC



| General technical data | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Connection, valve | | | G 1/4 | G 3/8 | G 1/2 | G 3/4 | G 1 | G 1 1/2 |
| Valve function | | | 2/2-way, single pilot | | | | | |
| Constructional design | | | Diaphragm valve | | | | | |
| Sealing principle | | | Soft | | | | | |
| Actuation type | | | Electrical | | | | | |
| Type of reset | | | Air spring | | | | | |
| Type of pilot control | | | Piloted | | | | | |
| Direction of flow | | | Non-reversible | | | | | |
| Exhaust function | | | No flow control | | | | | |
| Manual override | | | Non-detenting, detenting via accessory | | | | | |
| Type of mounting | | | In-line installation | | | | | |
| Mounting position | | | Any | | | | | |
| Nominal size | | [mm] | 13 | 13 | 13 | 20 | 25 | 40 |
| Standard nominal flow rate | | [l/min] | 2000 | 2900 | 3100 | 10000 | 11500 | 30500 |
| Product weight | | [g] | 450 | 450 | 400 | 1100 | 1000 | 2600 |
| Materials | Housing | | Brass | | | | | |
| | Diaphragm | | Nitrile rubber | | | | | |
| Max. tightening torque[1)] | | [Nm] | 35 | 60 | 105 | 200 | 380 | 850 |

1) Ports 1 and 2
Note: This product conforms to ISO 1179-1 and to ISO 228-1

| Operating and environmental conditions | | |
|---|---|---|
| Medium | | Filtered compressed air, lubricated or unlubricated |
| Note about operating/pilot medium | | Lubricated operation possible (subsequently required for further operation) |
| Medium pressure | [bar] | 0.5 ... 10 |
| Ambient temperature | [°C] | –10 ... +60 |
| Temperature of medium | [°C] | –10 ... +60 |

| Valve response times | | |
|---|---|---|
| Connection, valve | On | Off |
| G¼ | 30 | 100 |
| G⅜ | 30 | 100 |
| G½ | 30 | 100 |
| G¾ | 120 | 180 |
| G1 | 120 | 180 |
| G1½ | 230 ... 440 | 300 ... 1000 |

| Materials | | |
|---|---|---|
| Solenoid valves | | Material number |
| Housing | Brass | |
| Screws | High-alloy stainless steel | 1.4301 |

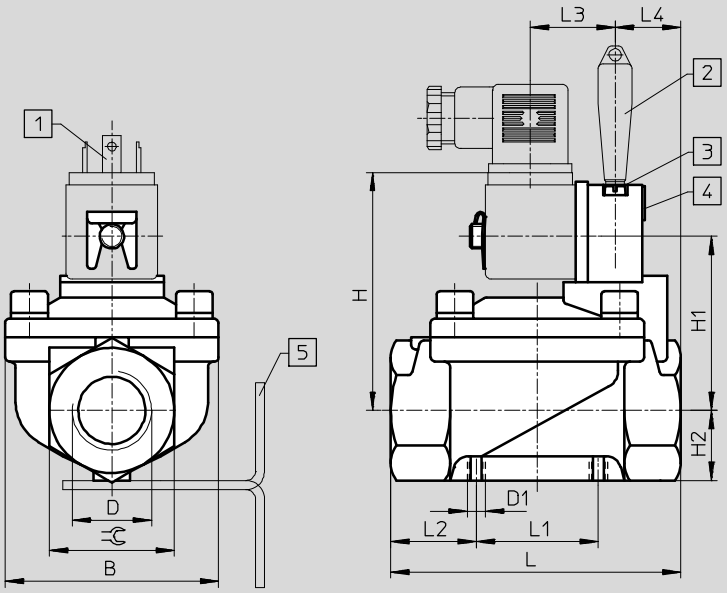
# Solenoid valves MN1H-MS, brass design

Technical data

| Electrical data | | | |
|---|---|---|---|
| N1 solenoid coil | | | |
| Electrical connection | | | Plug, square design to EN 175301-803, type A |
| Operating voltage | D.C. voltage | [V DC] | 24 |
| | A.C. voltage | [V AC] | 110/230 (50 … 60 Hz) |
| Coil characteristics | D.C. voltage | [W] | 2.5 |
| | A.C. voltage | [VA] | Pull: 5<br>Hold: 3.7 |
| Protection class to EN 60 529 | | | IP65 (with plug socket) |

**Dimensions** Download CAD data ➔ **www.festo.com**

2/2-way valve

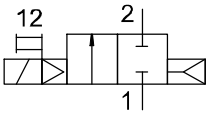



1 Wiring at plug socket to EN 175301-803, type A
2 Manual override, detenting
3 Manual override, resetting
4 Location for inscription labels IBS-9x20
5 Mounting bracket HRM-...

| Connection, valve D | B | D1 | H | H1 | H2 | L | L1 | L2 | L3 | L4 | ⌀ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| G 1/4 | 48 | M4 | 67 | 46 | 15 | 67 | 25 | 21 | 26.5 | 20 | 27 |
| G 3/8 | 48 | M4 | 67 | 46 | 15 | 67 | 25 | 21 | 26.5 | 20 | 27 |
| G 1/2 | 48 | M4 | 67 | 46 | 15 | 67 | 25 | 21 | 26.5 | 20 | 27 |
| G 3/4 | 70 | M6 | 78 | 57 | 23 | 95 | 40 | 27.5 | 26.5 | 21.5 | 41 |
| G 1 | 70 | M6 | 78 | 57 | 23 | 95 | 40 | 27.5 | 26.5 | 21.5 | 41 |
| G 1 1/2 | 96 | M6 | 91.5 | 70.5 | 31.5 | 140 | 59.5 | 38.3 | 26.5 | 30 | 58 |

Note: This product conforms to ISO 1179-1 and to ISO 228-1

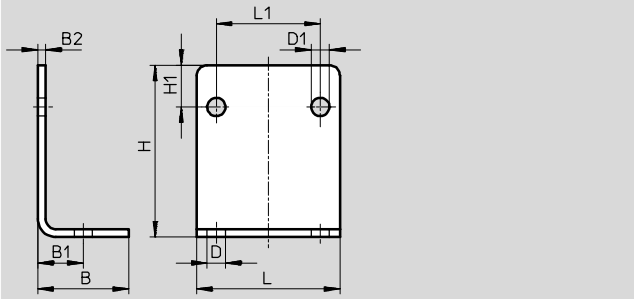
**Ordering data**

| Circuit symbol | Pneumatic connection | Part No. | Type |
|---|---|---|---|
|   | G 1/4 | **161725** | **MN1H-2-1/4-MS** |
| | G 3/8 | **161727** | **MN1H-2-3/8-MS** |
| | G 1/2 | **161728** | **MN1H-2-1/2-MS** |
| | G 3/4 | **161731** | **MN1H-2-3/4-MS** |
| | G 1 | **161732** | **MN1H-2-1-MS** |
| | G 1 1/2 | **161734** | **MN1H-2-11/2-MS** |

**Mounting bracket HRM**

Material:
Galvanised steel





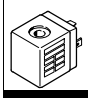

**Dimensions and ordering data**

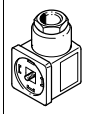
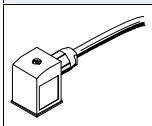
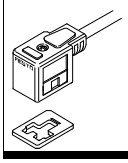
| For valve with pneumatic connection | B | B1 | B2 | D ∅ | D1 ∅ | H | H1 | L | L1 | Weight [g] | Part No. | Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G¼ ... G½ | 25 | 12.5 | 2 | 6 | 5 | 37 | 10 | 40 | 25 | 39 | **9769** | **HRM-1** |
| G ¾ ... G1 | 35 | 17.5 | 3 | 7 | 7 | 66 | 16 | 55 | 40 | 130 | **9770** | **HRM-2** |
| G1½ | 47 | 23.5 | 3 | 9 | 7 | 87 | 23 | 75 | 59.5 | 246 | **9771** | **HRM-3** |

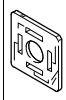
# Solenoid valves MN1H-MS, brass design

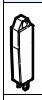
Accessories

FESTO

| Ordering data – Solenoid coils | | Technical data ➔ Internet: msn1g | |
|---|---|---|---|
| | Voltage | Part No. | Type |
|  | 24 V DC | **123060** | **MSN1G-24DC-OD** |
| | 110 V AC, 50 ... 60 Hz | **123061** | **MSN1W-110AC-OD** |
| | 230 V AC, 50 ... 60 Hz | **123062** | **MSN1W-230AC-OD** |

| Ordering data – Plug sockets, connecting cables | | | | | |
|---|---|---|---|---|---|
| | Voltage | Cable length [m] | Switching status display with LED | Part No. | Type |
| Plug socket without cable | | | | Technical data ➔ Internet: mssd-c | |
|  | – | – | – | **34583** | **MSSD-C** |
| Plug socket without cable with insulation displacement technology | | | | Technical data ➔ Internet: mssd-c | |
|  | – | – | – | **192748** | **MSSD-C-S-M16** |
| Connecting cables | | | | Technical data ➔ Internet: kmc-1 | |
|  | 24 V DC | 2.5 | ■ | **30931** | **KMC-1-24DC-2,5-LED** |
| | 24 V DC | 5 | ■ | **30933** | **KMC-1-24DC-5-LED** |
| | 24 V DC | 10 | ■ | **193459** | **KMC-1-24DC-10-LED** |
| | Up to 230 V | 2.5 | – | **30932** | **KMC-1-230AC-2,5** |
| | Up to 230 V | 5 | – | **30934** | **KMC-1-230AC-5** |

| Ordering data – Illuminating seal | | Technical data ➔ Internet: mc-ld | |
|---|---|---|---|
| | Voltage | Part No. | Type |
|  | 12 ... 24 V DC | **19145** | **MC-LD-12-24DC** |
| | 230 V DC/V AC | **19146** | **MC-LD-230AC** |

| Ordering data – General accessories | | | |
|---|---|---|---|
| | | Part No. | Type |
| Manual override tool | | | |
|  | For N1 coils | **157651** | **AHB-MD/MF/MV** |
| Inscription labels | | | |
|  | Scope of delivery 20 labels in frame | **18182** | **IBS-9x20** |

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**1 Festo Inc.**

5300 Explorer Drive
Mississauga, ON L4W 5G4
Canada

**Festo Customer Interaction Center**
Tel: 1 877 463 3786
Fax: 1 877 393 3786
Email: customer.service.ca@festo.com

**2 Festo Pneumatic**

Av. Ceylán 3,
Col. Tequesquináhuac
54020 Tlalnepantla,
Estado de México

**Multinational Contact Center**
01 800 337 8669

ventas.mexico@festo.com

**3 Festo Corporation**

1377 Motor Parkway
Suite 310
Islandia, NY 11749

**Festo Customer Interaction Center**
1 800 993 3786
1 800 963 3786
customer.service.us@festo.com

**4 Regional Service Center**

7777 Columbia Road
Mason, OH 45040

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