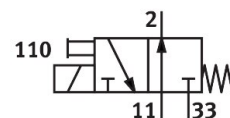


# Solenoid valve

## MHP4-MS1H-3/20-1/4

Part number: 525199

FESTO



## Data sheet

| Feature                                               | Value                                                              |
|-------------------------------------------------------|--------------------------------------------------------------------|
| Valve function                                        | 3/2 open, monostable                                               |
| Type of actuation                                     | Electric                                                           |
| Construction width                                    | 18 mm                                                              |
| Standard nominal flow rate (standardised to DIN 1343) | 400 l/min                                                          |
| pneumatic working port                                | G1/4                                                               |
| Operating voltage                                     | 24V DC                                                             |
| Operating pressure                                    | -0.09 MPa...0.8 MPa<br>-0.9 bar...8 bar<br>-13.05 psi...116 psi    |
| Design                                                | Pressure-relieved poppet valve                                     |
| Type of reset                                         | Mechanical spring                                                  |
| Degree of protection                                  | IP65                                                               |
| Approval                                              | RCM trademark<br>c UL us - Recognized (OL)                         |
| CE mark (see declaration of conformity)               | To EU EMC Directive<br>In accordance with EU RoHS Directive        |
| UKCA marking (see declaration of conformity)          | To UK instructions for EMC<br>To UK RoHS instructions              |
| Nominal size                                          | 4 mm                                                               |
| Grid dimension                                        | 24 mm                                                              |
| Note on grid dimension                                | Minimum distance between the valves is 6 mm                        |
| Exhaust-air function                                  | With flow control option                                           |
| Sealing principle                                     | Soft                                                               |
| Mounting position                                     | optional                                                           |
| Manual override                                       | Non-detenting                                                      |
| Type of piloting                                      | Direct                                                             |
| Flow direction                                        | Reversible with restrictions                                       |
| lap                                                   | Underlap                                                           |
| Reverse polarity protection                           | Bipolar                                                            |
| Additional functions                                  | Spark arresting<br>Holding current reduction<br>Protective circuit |

| Feature                                                   | Value                                                                                      |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Operating pressure, reversible                            | -0.09 MPa...0.1 MPa<br>-0.9 bar...1 bar<br>-13.05 psi...14.5 psi                           |
| Max. switching frequency                                  | 210 Hz                                                                                     |
| Switching time off                                        | 3.5 ms                                                                                     |
| Switching time on                                         | 3.5 ms                                                                                     |
| Tolerance switching time off                              | +10%/-40%                                                                                  |
| Tolerance switching time on                               | +10%/-30%                                                                                  |
| Switching time dispersion from 1 Hz                       | 0.3 ms                                                                                     |
| Duty cycle                                                | 100%                                                                                       |
| Characteristic coil data                                  | 24 V DC: low-current phase 2.125 W, high-current phase 8.5 W                               |
| Permissible voltage fluctuations                          | +/- 10 %                                                                                   |
| Operating medium                                          | Compressed air to ISO 8573-1:2010 [7:4:4]                                                  |
| Note on operating and pilot medium                        | Lubricated operation possible (in which case lubricated operation will always be required) |
| Vibration resistance                                      | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6           |
| Shock resistance                                          | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27                          |
| Corrosion resistance class CRC                            | 2 - Moderate corrosion stress                                                              |
| LABS (PWIS) conformity                                    | VDMA24364-B1/B2-L                                                                          |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 6 according to ISO 14644-1                                                           |
| Media temperature                                         | -5 °C...40 °C                                                                              |
| Ambient temperature                                       | -5 °C...40 °C                                                                              |
| Product weight                                            | 270 g                                                                                      |
| Electrical connection                                     | 2-pin<br>Plugs                                                                             |
| Type of mounting                                          | On PR rail                                                                                 |
| Pneumatic connection, port 11                             | Sub-base                                                                                   |
| Pneumatic connection, port 2                              | G1/4                                                                                       |
| Pneumatic port 33                                         | Sub-base                                                                                   |
| Note on materials                                         | RoHS-compliant                                                                             |
| Material seals                                            | HNBR<br>NBR                                                                                |
| Material housing                                          | Die-cast zinc, coated                                                                      |
| Material screws                                           | Galvanised steel                                                                           |