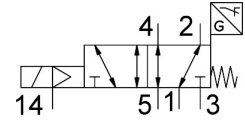
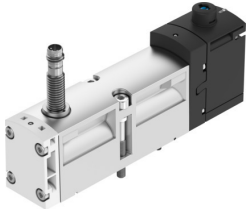


# Solenoid valve

## VSVA-B-M52-MZD-A1-1T1L-APP

Part number: 560724

**FESTO**



 General operating condition

## Data sheet

| Feature                                               | Value                                                                     |
|-------------------------------------------------------|---------------------------------------------------------------------------|
| Valve function                                        | 5/2-way, monostable                                                       |
| Type of actuation                                     | Electric                                                                  |
| Construction width                                    | 26 mm                                                                     |
| Standard nominal flow rate (standardised to DIN 1343) | 1100 l/min                                                                |
| pneumatic working port                                | Sub-base size 26 mm to ISO 15407-2<br>G1/4                                |
| Operating voltage                                     | 24V DC                                                                    |
| Operating pressure                                    | -0.09 MPa ... 1 MPa                                                       |
| Operating pressure                                    | -0.9 bar ... 10 bar                                                       |
| Design                                                | Piston gate valve                                                         |
| Type of reset                                         | Mechanical spring                                                         |
| KC mark                                               | KC-EMV                                                                    |
| CE mark (see declaration of conformity)               | To EU EMC Directive                                                       |
| UKCA marking (see declaration of conformity)          | To UK instructions for EMC                                                |
| Degree of protection                                  | IP65<br>NEMA 4                                                            |
| Nominal size                                          | 9 mm                                                                      |
| Exhaust-air function                                  | With flow control option<br>Via throttle plate<br>Via individual sub-base |
| Sealing principle                                     | Soft                                                                      |
| Mounting position                                     | optional                                                                  |
| Manual override                                       | Detenting<br>Non-detenting<br>Covered                                     |
| Type of piloting                                      | Pilot actuated                                                            |
| Pilot air supply                                      | External<br>Internal                                                      |
| Flow direction                                        | optional                                                                  |
| Symbol                                                | 00997391                                                                  |
| Measuring principle                                   | Inductive                                                                 |
| lap                                                   | Overlap                                                                   |
| Reverse polarity protection sensor                    | For all electrical connections                                            |
| Signal status display                                 | LED                                                                       |
| Switching position sensing                            | Normal position via sensor                                                |
| Switching status display sensor                       | LED                                                                       |
| Pilot pressure                                        | 0.3 MPa ... 1 MPa                                                         |
| Pilot pressure                                        | 3 bar ... 10 bar                                                          |

| Feature                                               | Value                                                                                      |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Flow rate of valve                                    | 1400 l/min                                                                                 |
| Flow rate of valve on individual sub-base             | 1200 l/min                                                                                 |
| Valve flow rate, pneumatically linked, flow optimized | 1350 l/min                                                                                 |
| Flow rate of pneumatically interlinked valve          | 1100 l/min                                                                                 |
| Switching time off                                    | 54 ms                                                                                      |
| Switching time on                                     | 20 ms                                                                                      |
| Valve - sensor switching time on                      | 60 ms                                                                                      |
| Valve - sensor switching time off                     | 11 ms                                                                                      |
| Duty cycle                                            | 100%                                                                                       |
| Max. positive test pulse with 0 signal                | 1200 µs                                                                                    |
| Max. negative test pulse with 1 signal                | 1100 µs                                                                                    |
| Nominal operating voltage DC                          | 24 V                                                                                       |
| Switching output                                      | PNP                                                                                        |
| Characteristic coil data                              | 24 V DC: 1.6 W                                                                             |
| Immunity to surge                                     | 2.5 kV                                                                                     |
| Pollution degree                                      | 3                                                                                          |
| 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                        | 0 - No corrosion stress                                                                    |
| LABS (PWIS) conformity                                | VDMA24364-B1/B2-L                                                                          |
| Media temperature                                     | -5 °C ... 50 °C                                                                            |
| Relative air humidity                                 | 0 - 90%                                                                                    |
| Sound pressure level                                  | 85 dB(A)                                                                                   |
| Ambient temperature                                   | -5 °C ... 50 °C                                                                            |
| Max. tightening torque for valve mounting             | 1.8 Nm ... 2.2 Nm                                                                          |
| Product weight                                        | 264 g                                                                                      |
| Operating voltage range, DC sensor                    | 10 V ... 30 V                                                                              |
| Short-circuit strength sensor                         | Pulsed                                                                                     |
| Idle current sensor                                   | ≤10 mA                                                                                     |
| Max. output current sensor                            | 200 mA                                                                                     |
| Max. switching frequency sensor                       | 5000 Hz                                                                                    |
| Residual ripple sensor                                | ± 10%                                                                                      |
| Voltage drop sensor                                   | ≤2 V                                                                                       |
| Electrical connection                                 | 4-pin<br>Plugs<br>To ISO 15407-2                                                           |
| Sensor connection                                     | Plug<br>3-pin<br>M8x1                                                                      |
| Type of mounting                                      | On sub-base                                                                                |
| Pilot air port 12/14                                  | Sub-base size 26 mm to ISO 15407-2                                                         |
| Pilot exhaust port 82/84                              | Ducted<br>Not ducted<br>Either:                                                            |
| Pneumatic connection, port 1                          | Sub-base size 26 mm to ISO 15407-2                                                         |
| Pneumatic connection, port 2                          | Sub-base size 26 mm to ISO 15407-2                                                         |
| Pneumatic connection, port 3                          | Sub-base size 26 mm to ISO 15407-2                                                         |
| Pneumatic connection, port 4                          | Sub-base size 26 mm to ISO 15407-2                                                         |
| Pneumatic connection, port 5                          | Sub-base size 26 mm to ISO 15407-2                                                         |
| Note on materials                                     | RoHS-compliant                                                                             |

| Feature                    | Value                    |
|----------------------------|--------------------------|
| Material seals             | FPM<br>NBR               |
| Material housing           | Die-cast aluminium<br>PA |
| Material screws            | Galvanised steel         |
| Switching element function | N/C contact              |