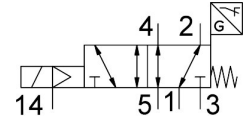
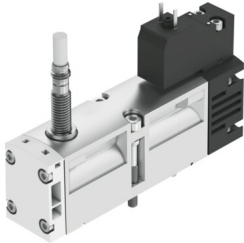


# Air solenoid valve VSVA-B-M52-MZ-A1-1C1-APC

Part number: 560725

**FESTO**



## Data sheet

| Feature                                           | Value                                                                                                     |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Valve function                                    | 5/2-way, monostable                                                                                       |
| Actuation type                                    | Electrical                                                                                                |
| Width                                             | 26 mm                                                                                                     |
| Normal nominal flow rate (normalized to DIN 1343) | 1100 l/min                                                                                                |
| Pneumatic working port                            | Sub-base, size 26 mm according to ISO 15407-1<br>Connecting plate size 01 according to VDMA 24563<br>G1/4 |
| Operating voltage                                 | 24V DC                                                                                                    |
| Operating pressure                                | -0.09 MPa...1.6 MPa<br>-0.9 bar...16 bar                                                                  |
| Structural design                                 | Piston gate valve                                                                                         |
| Reset method                                      | Mechanical spring                                                                                         |
| Certification                                     | C-Tick<br>c UL us - recognized (OL)                                                                       |
| KC characters                                     | KC-EMV                                                                                                    |
| CE marking (see declaration of conformity)        | As per EU EMC directive                                                                                   |
| Certificate issuing authority                     | UL MH19482                                                                                                |
| UKCA marking (see declaration of conformity)      | To UK instructions for EMC                                                                                |
| Degree of protection                              | IP65<br>NEMA 4                                                                                            |
| Nominal width                                     | 9 mm                                                                                                      |
| Exhaust air function                              | Adjustable<br>Via throttle plate<br>Via individual sub-base                                               |
| Sealing principle                                 | Soft                                                                                                      |
| Mounting position                                 | Any                                                                                                       |
| Conforms to standard                              | ISO 15407-1<br>VDMA 24563                                                                                 |
| Manual override                                   | Covered                                                                                                   |
| Type of control                                   | Piloted                                                                                                   |
| Pilot air supply port                             | External                                                                                                  |
| Flow direction                                    | Any                                                                                                       |
| Measuring principle                               | Inductive                                                                                                 |
| Lap                                               | Positive overlap                                                                                          |

| Feature                                                                | Value                                                                                |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Sensor reverse polarity protection                                     | For all electrical connections                                                       |
| Signal status display                                                  | With accessories                                                                     |
| Switching position sensing                                             | Normal position with sensor                                                          |
| Sensor switching status indication                                     | LED                                                                                  |
| Pilot pressure MPa                                                     | 0.3 MPa...1 MPa                                                                      |
| Pilot pressure                                                         | 3 bar...10 bar                                                                       |
| Flow rate of pneumatic valve                                           | 1400 l/min                                                                           |
| Flow rate of pneumatic valve on individual sub-base                    | 1100 l/min                                                                           |
| Optimized flow rate of pneumatic valve pneumatically concatenated flow | 1100 l/min                                                                           |
| Switching time off                                                     | 41 ms                                                                                |
| On switching time                                                      | 21 ms                                                                                |
| Pneumatic valve - sensor ON switching time                             | 60 ms                                                                                |
| Pneumatic valve - sensor switching time off                            | 11 ms                                                                                |
| Duty cycle                                                             | 100%                                                                                 |
| Max. positive test pulse with 0 signal                                 | 1800 µs                                                                              |
| Max. negative test pulse on 1 signal                                   | 800 µs                                                                               |
| Nominal operating voltage DC                                           | 24 V                                                                                 |
| Switching output                                                       | PNP                                                                                  |
| Coil characteristics                                                   | 24 V DC: 1.8 W                                                                       |
| Permissible voltage fluctuations                                       | -15% / +10%                                                                          |
| Operating medium                                                       | Compressed air as per ISO 8573-1:2010 [7:4:4]                                        |
| Information on operating and pilot media                               | Operation with oil lubrication possible (required for further use)                   |
| Vibration resistance                                                   | Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6 |
| Shock resistance                                                       | Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27                |
| Corrosion resistance class (CRC)                                       | 0 - No corrosion stress                                                              |
| LABS (PWIS) conformity                                                 | VDMA24364-B1/B2-L                                                                    |
| Temperature of medium                                                  | -5 °C...50 °C                                                                        |
| Relative air humidity                                                  | 0 - 90%                                                                              |
| Noise level                                                            | 85 dB(A)                                                                             |
| Ambient temperature                                                    | -5 °C...50 °C                                                                        |
| Max. tightening torque for valve mounting                              | 1.8 Nm...2.2 Nm                                                                      |
| Product weight                                                         | 332 g                                                                                |
| DC sensor operating voltage range                                      | 10 V...30 V                                                                          |
| Sensor short circuit protection                                        | Pulsed                                                                               |
| Sensor idle current                                                    | 10 mA                                                                                |
| Max. output current, sensor                                            | 200 mA                                                                               |
| Sensor max. switching frequency                                        | 5000 Hz                                                                              |
| Sensor residual ripple                                                 | ±10%                                                                                 |
| Sensor voltage drop                                                    | 2 V                                                                                  |
| Electrical connection                                                  | Type C<br>As per EN 175301-803<br>Without PE conductor                               |
| Sensor connection                                                      | Cable<br>2.5 m                                                                       |
| Type of mounting                                                       | On sub-base                                                                          |
| Pilot air port 12/14                                                   | Sub-base, size 26 mm as per ISO 15407-1                                              |
| Pilot exhaust air port 82/84                                           | Ducted<br>Not ducted<br>Alternatively:                                               |
| Pneumatic connection 1                                                 | Sub-base, size 26 mm as per ISO 15407-1                                              |
| Pneumatic connection 2                                                 | Sub-base, size 26 mm as per ISO 15407-1                                              |
| Pneumatic connection 3                                                 | Sub-base, size 26 mm as per ISO 15407-1                                              |
| Pneumatic connection 4                                                 | Sub-base, size 26 mm as per ISO 15407-1                                              |

| Feature                    | Value                                   |
|----------------------------|-----------------------------------------|
| Pneumatic connection 5     | Sub-base, size 26 mm as per ISO 15407-1 |
| Pilot interface            | As per ISO 15218                        |
| Note on materials          | RoHS compliant                          |
| Seals material             | FPM<br>NBR                              |
| Housing material           | Die-cast aluminum<br>PA                 |
| Material of screws         | Galvanized steel                        |
| Switching element function | NC contact                              |