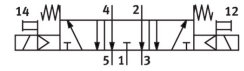
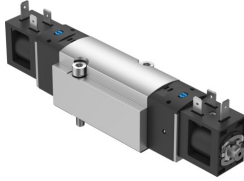


# Solenoid valve VSVA-BK-P53E-D-D1-1B2

Part number: 8166595

**FESTO**



 [General operating condition](#)

## Data sheet

| Feature                                                                | Value                                        |
|------------------------------------------------------------------------|----------------------------------------------|
| Valve function                                                         | 5/3, exhausted                               |
| Actuation type                                                         | Electrical                                   |
| Width                                                                  | 38 mm                                        |
| Valve size                                                             | 42 mm                                        |
| Standard nominal flow rate                                             | 1200 l/min                                   |
| Pneumatic working port                                                 | Sub-base, size 1 according to ISO 5599-1     |
| Operating voltage                                                      | 24V DC                                       |
| Operating pressure                                                     | 0.3 MPa ... 0.8 MPa                          |
| Operating pressure                                                     | 3 bar ... 8 bar                              |
| Structural design                                                      | Piston slide with sealing ring               |
| Reset method                                                           | Mechanical spring                            |
| Degree of protection                                                   | IP65<br>With plug socket<br>as per IEC 60529 |
| Nominal width                                                          | 6.3 mm                                       |
| Width dimension                                                        | 43 mm                                        |
| Exhaust air function                                                   | With flow control option                     |
| Sealing principle                                                      | Soft                                         |
| Mounting position                                                      | Any                                          |
| Conforms to standard                                                   | ISO 5599-1                                   |
| Manual override                                                        | Detenting<br>Non-detenting                   |
| ISO code                                                               | 157                                          |
| Type of control                                                        | Pilot-controlled                             |
| Pilot air supply port                                                  | Internal                                     |
| Flow direction                                                         | Non-reversible                               |
| Symbol                                                                 | 00991082                                     |
| Lap                                                                    | Underlap                                     |
| Signal status display                                                  | With accessories                             |
| b-value                                                                | 0.26                                         |
| C value                                                                | 5.63 l/sbar                                  |
| Flow rate of pneumatic valve                                           | 1289 l/min                                   |
| Flow rate of pneumatic valve on individual sub-base                    | 1289 l/min                                   |
| Optimized flow rate of pneumatic valve pneumatically concatenated flow | 1283 l/min                                   |
| Switching time off                                                     | 37.4 ms                                      |
| On switching time                                                      | 12.4 ms                                      |

| Feature                                   | Value                                                                                |
|-------------------------------------------|--------------------------------------------------------------------------------------|
| Changeover time                           | 18.9 ms                                                                              |
| Duty cycle                                | 100%                                                                                 |
| Max. positive test pulse with 0 signal    | 2500 µs                                                                              |
| Max. negative test pulse on 1 signal      | 1100 µs                                                                              |
| Nominal operating voltage DC              | 24 V                                                                                 |
| Coil characteristics                      | 24 V DC: 3.3 W                                                                       |
| Permissible voltage fluctuations          | +/- 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)          | 1 - Low corrosion stress                                                             |
| LABS (PWIS) conformity                    | VDMA24364 zone III                                                                   |
| Temperature of medium                     | -5 °C ... 50 °C                                                                      |
| Pilot medium                              | Compressed air as per ISO 8573-1:2010 [7:4:4]                                        |
| Ambient temperature                       | -5 °C ... 50 °C                                                                      |
| Max. tightening torque for valve mounting | 5 Nm                                                                                 |
| Product weight                            | 402 g                                                                                |
| Electrical connection                     | Form B<br>As per industrial standard (11 mm)                                         |
| Type of mounting                          | On sub-base                                                                          |
| Venting hole connection                   | Not ducted                                                                           |
| Pneumatic connection 1                    | Sub-base, size 1 as per ISO 5599-1                                                   |
| Pneumatic connection 2                    | Sub-base, size 1 as per ISO 5599-1                                                   |
| Pneumatic connection 3                    | Sub-base, size 1 as per ISO 5599-1                                                   |
| Pneumatic connection 4                    | Sub-base, size 1 as per ISO 5599-1                                                   |
| Pneumatic connection 5                    | Sub-base, size 1 as per ISO 5599-1                                                   |
| Note on materials                         | RoHS-compliant                                                                       |
| Seals material                            | HNBR<br>NBR                                                                          |
| Housing material                          | Wrought aluminum alloy                                                               |
| Piston slide material                     | Wrought aluminum alloy                                                               |
| Material of screws                        | Steel, galvanized                                                                    |