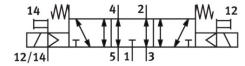


# Solenoid valve

## VUVG-L18-P53E-ZT-G14-1H2L-F1A

Part number: 8172848

FESTO



 General operating condition

## Data sheet

| Feature                                               | Value                                      |
|-------------------------------------------------------|--------------------------------------------|
| Valve function                                        | 5/3 exhausted                              |
| Type of actuation                                     | Electric                                   |
| Valve size                                            | 18 mm                                      |
| Standard nominal flow rate (standardised to DIN 1343) | 910 l/min                                  |
| pneumatic working port                                | 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                          |
| Approval                                              | RCM trademark<br>c UL us - Recognized (OL) |
| Certificate issuing authority                         | UL MH19482                                 |
| Degree of protection                                  | IP40                                       |
| Nominal size                                          | 6.5 mm                                     |
| Exhaust-air function                                  | With flow control option                   |
| Sealing principle                                     | Soft                                       |
| Mounting position                                     | optional                                   |
| Manual override                                       | Detenting<br>Non-detenting<br>Covered      |
| Type of piloting                                      | Pilot actuated                             |
| Pilot air supply                                      | External                                   |
| Symbol                                                | 00991752                                   |
| lap                                                   | Indefinite overlap                         |
| Pilot pressure                                        | 0.3 MPa ... 0.8 MPa                        |
| Pilot pressure                                        | 3 bar ... 8 bar                            |
| Suitability for vacuum                                | yes                                        |
| Switching time off                                    | 68 ms                                      |
| Switching time on                                     | 20 ms                                      |
| Switching time reversal                               | 39 ms                                      |
| Duty cycle                                            | 100%                                       |
| Max. positive test pulse with 0 signal                | 700 µs                                     |
| Max. negative test pulse with 1 signal                | 900 µs                                     |
| Characteristic coil data                              | 24 V DC: 0.8 W                             |
| Permissible voltage fluctuations                      | +/- 10 %                                   |

| Feature                                              | Value                                                                                                                                                    |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                         |
| Restrictions for environmental and media temperature | -5 ... 50° C<br>Without holding current reduction                                                                                                        |
| 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 zone III                                                                                                                                       |
| Suitability for the production of Li-ion batteries   | Suitable for battery production according to the Festo internal definition of the degree of severity F1A with restrictions regarding the use of Cu/Zn/Ni |
| Cleanroom class                                      | Class 5 according to ISO 14644-1                                                                                                                         |
| Storage temperature                                  | -20 °C ... 60 °C                                                                                                                                         |
| Media temperature                                    | -5 °C ... 50 °C                                                                                                                                          |
| Pilot medium                                         | Compressed air to ISO 8573-1:2010 [7:4:4]                                                                                                                |
| Ambient temperature                                  | -5 °C ... 50 °C                                                                                                                                          |
| Product weight                                       | 160 g                                                                                                                                                    |
| Electrical connection                                | 2-pin<br>Plug pattern H, horizontal connection<br>Plugs                                                                                                  |
| Type of mounting                                     | Either:<br>On manifold rail<br>With through-hole                                                                                                         |
| Pilot air port 12/14                                 | M5                                                                                                                                                       |
| Pneumatic connection, port 1                         | G1/4                                                                                                                                                     |
| Pneumatic connection, port 2                         | G1/4                                                                                                                                                     |
| Pneumatic connection, port 3                         | G1/4                                                                                                                                                     |
| Pneumatic connection, port 4                         | G1/4                                                                                                                                                     |
| Pneumatic connection, port 5                         | G1/4                                                                                                                                                     |
| Note on materials                                    | RoHS-compliant                                                                                                                                           |
| Material seals                                       | HNBR<br>NBR                                                                                                                                              |
| Material housing                                     | Wrought aluminium alloy                                                                                                                                  |
| Material screws                                      | Coated steel                                                                                                                                             |