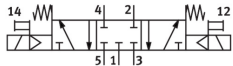


# Solenoid valve VSNC

Part number: 8026033

FESTO



General operating condition

## Data sheet

Overall data sheet – Individual values depend upon your configuration.

| Feature                                               | Value                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valve function                                        | 5/2 bistable<br>5/2-way or 3/2-way, convertible<br>5/3-way, pressurised<br>5/3 exhausted<br>5/3 closed                                                                                                                                                                                                  |
| Type of actuation                                     | Electric                                                                                                                                                                                                                                                                                                |
| Construction width                                    | 32 mm                                                                                                                                                                                                                                                                                                   |
| Standard nominal flow rate (standardised to DIN 1343) | 800 l/min ... 1350 l/min                                                                                                                                                                                                                                                                                |
| pneumatic working port                                | NAMUR port pattern                                                                                                                                                                                                                                                                                      |
| Operating voltage                                     | 110V AC<br>120V AC<br>12V DC<br>230V AC<br>240V AC<br>24V AC<br>24V DC<br>48V AC<br>48V DC<br>Via solenoid coil, must be ordered separately                                                                                                                                                             |
| Operating pressure                                    | 0.15 MPa ... 1 MPa                                                                                                                                                                                                                                                                                      |
| Operating pressure                                    | 1.5 bar ... 10 bar                                                                                                                                                                                                                                                                                      |
| Design                                                | Piston gate valve<br>Poppet seat                                                                                                                                                                                                                                                                        |
| Type of reset                                         | Mechanical spring                                                                                                                                                                                                                                                                                       |
| Approval                                              | c UL us - Recognized (OL)                                                                                                                                                                                                                                                                               |
| CE mark (see declaration of conformity)               | To EU Explosion Protection Directive (ATEX)<br>To EU Low Voltage Directive                                                                                                                                                                                                                              |
| Explosion protection certification outside the EU     | Class I, Div. 1 (US)<br>Class I, Div. 2 (US)<br>Class II, Div. 1 (US)<br>Class II, Div. 2 (US)<br>Class III, Div. 1 (US)<br>Class III, Div. 2 (US)<br>EPL Da (IECEX)<br>EPL Db (IEC-EX)<br>EPL Db (KR)<br>EPL Dc (KR)<br>EPL Ga (IEC-EX)<br>EPL Ga (KR)<br>EPL Gb (IECEX)<br>EPL Gb (KR)<br>EPL Gc (KR) |

| Feature                                        | Value                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Certificate issuing authority                  | BVS 15ATEXE029X<br>BVS 15ATEXE030X<br>DNVGL-TAA000011J<br>IECEX BVS 15.0020X<br>IECEX BVS 15.0075X                                                                                                                                                                                                                  |
| ATEX category gas                              | II 2G<br>II 3G                                                                                                                                                                                                                                                                                                      |
| ATEX category dust                             | II 2D<br>II 3D                                                                                                                                                                                                                                                                                                      |
| Explosion ignition protection type for gas     | AEx m II T4<br>Ex db IIC T4 Gb<br>Ex db IIC T5 Gb<br>Ex ia IIC T6 Ga<br>Ex ia IIC T6...T5 Ga<br>Ex mb IIC T6<br>Ex nA IIC T5 X Gc                                                                                                                                                                                   |
| Explosion ignition protection type for dust    | Ex mb tb IIIC T80°C<br>Ex t IIIC T80°C Db<br>Ex tb IIIC T100°C Db<br>Ex tb IIIC T135°C Db<br>Ex tc IIIC T95°C X Dc                                                                                                                                                                                                  |
| Explosion ambient temperature                  | -20 °C ≤ Ta ≤ +50 °C<br>-20°C ≤ Ta ≤ +60°C<br>-40 °C ≤ Ta ≤ +50 °C<br>-40 °C ≤ Ta ≤ +65 °C<br>-65°C ≤ Ta ≤ +40°C<br>-65 °C ≤ Ta ≤ +55 °C<br>T4, T130 °C: -20 °C ≤ Ta ≤ +60 °C<br>T5, T95 °C: -20 °C ≤ Ta ≤ +60 °C<br>T5, T95°C: -30°C ≤ Ta ≤ +65°C<br>T6, T85°C: -20°C ≤ Ta ≤ +50°C<br>T6/T80°C: -30°C ≤ Ta ≤ +50°C |
| Degree of protection                           | IP65<br>IP66<br>IP67<br>With plug socket<br>To IEC 60529                                                                                                                                                                                                                                                            |
| Exhaust-air function                           | With flow control option                                                                                                                                                                                                                                                                                            |
| Sealing principle                              | Soft                                                                                                                                                                                                                                                                                                                |
| Mounting position                              | optional                                                                                                                                                                                                                                                                                                            |
| Conforms to standard                           | VDI/VDE 3845 (NAMUR)                                                                                                                                                                                                                                                                                                |
| Manual override                                | Detenting<br>None<br>Non-detenting<br>Covered                                                                                                                                                                                                                                                                       |
| Type of piloting                               | Pilot actuated                                                                                                                                                                                                                                                                                                      |
| Pilot air supply                               | Internal                                                                                                                                                                                                                                                                                                            |
| Flow direction                                 | Non-reversible                                                                                                                                                                                                                                                                                                      |
| Symbol                                         | 00991005<br>00991018<br>00991021<br>00991080<br>00991082<br>00991083<br>00991728<br>00991831<br>00991953<br>00995701                                                                                                                                                                                                |
| lap                                            | Overlap<br>Underlap                                                                                                                                                                                                                                                                                                 |
| Signal status display                          | With accessories                                                                                                                                                                                                                                                                                                    |
| b value                                        | 0.4 ... 0.5                                                                                                                                                                                                                                                                                                         |
| C value                                        | 2.1 l/sbar ... 5.6 l/sbar                                                                                                                                                                                                                                                                                           |
| Standard nominal flow rate, exhaust return 4→3 | 110 l/min                                                                                                                                                                                                                                                                                                           |
| Switching time off                             | 6 ms ... 120 ms                                                                                                                                                                                                                                                                                                     |

| Feature                            | Value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Switching time on                  | 4 ms ... 35 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Switching time reversal            | 2 ms ... 55 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Duty cycle                         | 100%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Characteristic coil data           | 110/120 V AC: 50/60 Hz, pick-up power 2.7 VA, holding power 1.9 VA<br>110/120 V AC: 50/60 Hz, pick-up power 4.4 VA, holding power 3.3 VA<br>110/120 V AC: 50/60 Hz, pick-up power 5.2 VA, holding power 3.1 VA<br>110/120 V AC: 50/60 Hz, pick-up power 6.9 VA, holding power 3.1 VA<br>110 V AC: 50/60 Hz, pick-up power 7.7 VA, holding power 3.8 VA<br>120 V AC: 60 Hz, pick-up power 10.0 VA, holding power 6.8 VA<br>12 V DC: 2.8 W<br>12 V DC: 3.4 W<br>230/240 V AC: 50/60 Hz, pick-up power 3.9 VA, holding power 2.8 VA<br>230/240 V AC: 50/60 Hz, pick-up power 5.8 VA, holding power 4.6 VA<br>230 V AC: 50/60 Hz, pick-up power 10.0 VA, holding power 6.0 VA<br>230 V AC: 50/60 Hz, pick-up power 11.5 VA, holding power 8.0 VA<br>230 V AC: 50/60 Hz, pick-up power 6.2 VA, holding power 3.7 VA<br>230 V AC: 50/60 Hz, pick-up power 6.9 VA, holding power 4.1 VA<br>24 V DC: 0.8 W<br>24 V DC: 2.1 W<br>24 V DC: 2.7 W<br>24 V DC: 3.3 W<br>24 V DC: 4.6 W<br>24 V AC: 50/60 Hz, pick-up power 2.5 VA, holding power 1.7 VA<br>24 V AC: 50/60 Hz, pick-up power 3.9 VA, holding power 2.6 VA<br>24 V DC: 0.7 W<br>24 V DC: 1.2 W<br>24 V DC: 2.6 W<br>48 V AC: 50/60 Hz, pick-up power 2.5 VA, holding power 1.7 VA<br>48 V AC: 50/60 Hz, pick-up power 3.9 VA, holding power 2.7 VA<br>48 V DC: 2.8 W<br>48 V DC: 3.4 W<br>See solenoid coil, to be ordered separately |
| Permissible voltage fluctuations   | +/- 10 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Explosion protection               | Class I, Div. 1 (US)<br>Class I, Div. 2 (US)<br>Class II, Div. 1 (US)<br>Class II, Div. 2 (US)<br>Class III, Div. 1 (US)<br>Class III, Div. 2 (US)<br>Zone 0 (IEC-EX)<br>Zone 0 (KR)<br>Zone 1 (ATEX)<br>Zone 1 (IEC-EX)<br>Zone 1 (KR)<br>Zone 2 (ATEX)<br>Zone 2 (KR)<br>Zone 20 (IEC-EX)<br>Zone 21 (ATEX)<br>Zone 21 (IEC-EX)<br>Zone 21 (KR)<br>Zone 22 (ATEX)<br>Zone 22 (KR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Corrosion resistance class CRC     | 2 - Moderate corrosion stress                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| LABS (PWIS) conformity             | VDMA24364-B2-L<br>VDMA24364 zone III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Media temperature                  | -20 °C ... 60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Ambient temperature                | -20 °C ... 60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Product weight                     | 335 g ... 685 g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Feature                      | Value                                                                                                                                                 |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electrical connection        | 3-pin<br>Type A<br>Type B<br>Cable connector M20x1.5<br>M12x1, A-coded to EN 61076-2-101<br>Plugs<br>To EN 175301-803<br>To industry standard (11 mm) |
| Type of mounting             | With through-hole                                                                                                                                     |
| Breather connection          | Not ducted                                                                                                                                            |
| Pneumatic connection, port 1 | G1/4<br>1/4 NPT<br>QS-6<br>QS-8<br>QS-10<br>QS-1/4<br>QS-5/16<br>QS-3/8                                                                               |
| Pneumatic connection, port 2 | NAMUR port pattern                                                                                                                                    |
| Pneumatic connection, port 3 | G1/4<br>1/4 NPT<br>QS-6<br>QS-8<br>QS-10<br>QS-1/4<br>QS-5/16<br>QS-3/8                                                                               |
| Pneumatic connection, port 4 | NAMUR port pattern                                                                                                                                    |
| Pneumatic connection, port 5 | G1/4<br>1/4 NPT<br>QS-6<br>QS-8<br>QS-10<br>QS-5/16<br>QS-1/4<br>QS-3/8                                                                               |
| Note on materials            | RoHS-compliant                                                                                                                                        |
| Material seals               | NBR                                                                                                                                                   |
| Material housing             | Wrought aluminium alloy                                                                                                                               |
| Material screws              | Galvanised steel                                                                                                                                      |