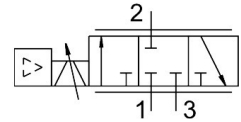


# Proportional flow control valve VPCF-6-L-8-G38-6-A4-E-EX2

Part number: 8041713

**FESTO**



General operating condition

## Data sheet

| Feature                                            | Value                                                                                                                                                                                                                   |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valve function                                     | 3-way proportional flow control valve                                                                                                                                                                                   |
| Design                                             | Piston gate valve<br>With integrated pressure sensors                                                                                                                                                                   |
| Type of piloting                                   | Direct                                                                                                                                                                                                                  |
| Type of actuation                                  | Electric                                                                                                                                                                                                                |
| Type of reset                                      | Magnetic spring                                                                                                                                                                                                         |
| Symbol                                             | 00995603                                                                                                                                                                                                                |
| Flow direction                                     | Non-reversible                                                                                                                                                                                                          |
| Mounting position                                  | optional                                                                                                                                                                                                                |
| Sealing principle                                  | Hard                                                                                                                                                                                                                    |
| Nominal size                                       | 6 mm                                                                                                                                                                                                                    |
| Short circuit current rating                       | yes                                                                                                                                                                                                                     |
| Display type                                       | LED                                                                                                                                                                                                                     |
| Flow range                                         | 0 l/min ... 1000 l/min                                                                                                                                                                                                  |
| Operating pressure                                 | 0.1 MPa ... 0.6 MPa                                                                                                                                                                                                     |
| Operating pressure                                 | 1 bar ... 6 bar                                                                                                                                                                                                         |
| Flow rate control range                            | 20 l/min ... 1000 l/min                                                                                                                                                                                                 |
| Note on the flow rate control range                | Regulation takes place as of 20 l/min; below this reference value the flow control valve switches to the exhaust port.<br>The accuracy specifications provided are based on a flow rate control range of 50-1000 l/min. |
| Repetition accuracy in $\pm$ %FS                   | 0.5 %FS                                                                                                                                                                                                                 |
| Absolute accuracy in $\pm$ %FS at room temperature | 3 %FS                                                                                                                                                                                                                   |
| Hysteresis in $\pm$ %FS                            | 0.8 %FS                                                                                                                                                                                                                 |
| Ambient temperature                                | 0 °C ... 50 °C                                                                                                                                                                                                          |
| Media temperature                                  | 15 °C ... 35 °C                                                                                                                                                                                                         |
| Operating medium                                   | Compressed air to ISO 8573-1:2010 [6:4:4]                                                                                                                                                                               |
| Note on operating and pilot medium                 | Lubricated operation not possible<br>Maximum particle size 5 $\mu$ m                                                                                                                                                    |
| Degree of protection                               | IP65                                                                                                                                                                                                                    |
| Note on degree of protection                       | In assembled state                                                                                                                                                                                                      |
| Approval                                           | RCM trademark                                                                                                                                                                                                           |
| CE mark (see declaration of conformity)            | To EU EMC Directive<br>To EU Explosion Protection Directive (ATEX)<br>In accordance with EU RoHS Directive                                                                                                              |
| Explosion protection                               | Zone 2 (ATEX)<br>Zone 22 (ATEX)                                                                                                                                                                                         |

| Feature                                      | Value                                                                            |
|----------------------------------------------|----------------------------------------------------------------------------------|
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK EX instructions<br>To UK RoHS instructions   |
| ATEX category gas                            | II 3G                                                                            |
| ATEX category dust                           | II 3D                                                                            |
| Explosion ignition protection type for gas   | Ex nA IIC T5 X Gc                                                                |
| Explosion ignition protection type for dust  | Ex tc IIIC T60°C X Dc                                                            |
| Explosion ambient temperature                | 0 °C ≤ Ta ≤ +50 °C                                                               |
| LABS (PWIS) conformity                       | VDMA24364-B1/B2-L                                                                |
| Note on materials                            | RoHS-compliant                                                                   |
| 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               | 1 - Low corrosion stress                                                         |
| Nominal operating voltage DC                 | 24 V                                                                             |
| Operational voltage range DC                 | 20.4 V ... 30 V                                                                  |
| Residual ripple                              | 5 %                                                                              |
| Max. current consumption                     | 1.2 A                                                                            |
| Current consumption with no-load outputs     | 150 mA                                                                           |
| Switching output                             | PNP                                                                              |
| Switching input                              | PNP                                                                              |
| Current rating per output                    | 100 mA                                                                           |
| Reverse polarity protection                  | For operating voltage                                                            |
| Duty cycle                                   | 100%                                                                             |
| Max. electrical power consumption            | 36 W                                                                             |
| Signal range analogue output                 | 4 - 20 mA                                                                        |
| Signal range analogue input                  | 4 - 20 mA                                                                        |
| Diagnostic function                          | Display via LED                                                                  |
| Electrical connection                        | 8-pin<br>A-coded<br>M12x1<br>Plugs                                               |
| Type of mounting                             | Direct mounting via through-hole<br>Direct mounting via thread                   |
| Pneumatic connection, port 1                 | G3/8                                                                             |
| Pneumatic connection, port 2                 | G3/8                                                                             |
| Pneumatic connection, port 3                 | G3/8                                                                             |
| Product weight                               | 856 g                                                                            |
| Material housing                             | Anodised wrought aluminium alloy                                                 |
| Material seals                               | FPM<br>HNBR                                                                      |