GOYEN - FS SERIES
FLANGED VALVES

DESCRIPTION

Very high performance diaphragm valve with flanged inlet port and slide seal outlet port for easy valve installation and removal. Available with integral pilot or as remotely piloted valve. Outlet at 90° to inlet.

SUITABLE FOR

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations, including bag filters, cartridge filters and envelope filters, ceramic filters and sintered metal fibre filters.

CONSTRUCTION

Body: Diecast aluminium or 316 stainless steel
Ferrule: 305 SS
Armature: 430FR SS
Seals: Nitrile or Viton
Spring: 304 SS
Screws: 302 or 304 SS
Outlet Slide Seal: EPDM or Viton
Diaphragm Seat: PA-66 (standard), Viton coated mild steel

Refer to Q Series Solenoid product data sheet for solenoid construction details.

OPERATION

Recommended on-time range: 50–500 ms
Recommended time between pulses: 1 minute or greater

MAINTENANCE

Before conducting any maintenance activity on the system ensure that components are fully isolated from pressure and power supplies. Pressure and power should not be reapplied until the valve has been fully assembled. Diaphragm and pilot inspection should be conducted annually.

APPROVALS

• ATEX II 3 GD (RCA/RCAC only)
• CSA (C, US) [C22.2 No 139–10 and UL 429:2009] (CA & RCA)
• C-Tick (CA)
• EMC 2004/108/EC (CA)
• Low Voltage Directive 2006/95/EC (CA)

INSTALLATION

1. Prepare inlet flanges and blowtube pipes for easy valve installation and removal. Avoid installing valves underneath the tank.
2. Ensure tank and pipes are free from dirt, rust or other particulate.
3. Ensure supply air is clean and dry.
4. Mount valves to inlet flange and blowtube to valves with all seals in place. Tighten flange bolts to 10Nm [7.4 ft–lbs] Ensure blowtube is pushed all the way into the valve outlet.
5. Tanks and pipes must be independently supported from valve.
6. Make electrical connections to solenoid or connect RCA pilot port to pilot valve (RCA valves only).
7. Apply moderate pressure to system and check for installation leaks.
8. Fully pressurise system.
9. Test fire and listen for proper actuation and crisp pulse noise.

Valve is not a structural component. Do not rely on valve to retain tanks or pipe. Where used, refer to DEINIC-002 product specification for installation details.

SIZE OD MM OD INCHES

<table>
<thead>
<tr>
<th>SIZE</th>
<th>OD MM</th>
<th>OD INCHES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5&quot;</td>
<td>48.3</td>
<td>1.900</td>
</tr>
</tbody>
</table>

We recommend Schedule 40 thickness.

WEIGHTS

<table>
<thead>
<tr>
<th>SIZE</th>
<th>INTEGRAL PILOT (CA) KG (LB)</th>
<th>REMOTE PILOT (RCA) KG (LB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>1.830 (4.03)</td>
<td>1.610 (3.55)</td>
</tr>
</tbody>
</table>
GOYEN - FS SERIES
FLANGED VALVES

PRODUCT LEAFLET

MAINTENANCE KITS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>NITRILE</th>
<th>VITON</th>
<th>INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA/RCA45FS</td>
<td>K4502</td>
<td>K4503, K4542 [Viton/SS], K4544 [Viton/SS Main Diaphragm only]</td>
<td>Diaphragm kits include main and secondary diaphragms and all springs</td>
</tr>
<tr>
<td>Integral pilot repair kit (CA45FS and CAC25FS)</td>
<td>K0380</td>
<td>K0384</td>
<td>O-ring armature assembly, armature spring, ferrule</td>
</tr>
<tr>
<td>Integral pilot repair kit (CAC45FS)</td>
<td>K0390</td>
<td>NA</td>
<td>O-ring armature assembly, armature spring, ferrule</td>
</tr>
<tr>
<td>45FS Outlet seal</td>
<td>G690864</td>
<td>G690864-2</td>
<td>Outlet seal</td>
</tr>
</tbody>
</table>

PRODUCT CHARACTERISTICS AND PERFORMANCE

<table>
<thead>
<tr>
<th>NOM. SIZE</th>
<th>PORT SIZE</th>
<th>NUMBER OF DIAPHRAGMS</th>
<th>FLOW</th>
<th>PRESSURE RANGE</th>
<th>TEMPERATURE RANGE °C °(F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>40</td>
<td>1.5</td>
<td>2</td>
<td>56</td>
<td>65</td>
</tr>
</tbody>
</table>

CA45FS010-300
1.5” FS valve with nitrile seals and 220/240 V AC integral pilot with DIN socket terminals.

RCAC45FS091
1.5” FS valve with 1 8” NPT remote pilot port, stainless steel body and valve cover, and viton seals.

DIMENSIONS IN MM (AND IN CHANCES)

ORDER CODE

EXCEPTIONS
RCAC20FS4 - REVERSE PULSE JET VALVES

**SUITABLE FOR**

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations, including bag filters, cartridge filters and envelope filters, ceramic filters and sintered metal fibre filters.

**CONSTRUCTION**

- **Body:** Aluminium (diecast)
- **Screws:** 304 Stainless steel
- **Seals:**
  - Inlet O-ring: Nitrile used with shockwave diaphragm, Viton with Viton diaphragm
  - Outlet: EPDM used with shockwave diaphragm, Viton with Viton diaphragm
- **Diaphragm:** Proprietary high performance engineering thermoplastic Elastomer or Viton

**OPERATION**

- **Recommended on-time range:** 50 to 500 ms
- **Recommended time between pulses:** 1 minute or greater

**MAINTENANCE**

Before conducting any maintenance activity on the system ensure that components are fully isolated from pressure and power supplies. Pressure and power should not be reapplied until the valve has been fully assembled. Diaphragm and pilot unit inspection should be conducted annually.

**APPROVALS**

The RCAC20FS4 meets the requirements of the European Low Voltage Directive 2006/95/EC, when fitted with the RCA3PV pilot.

**DESCRIPTION**

High-performance diaphragm valve with a flanged inlet port and slide seal outlet port. Equipped with ‘Shockwave’ springless diaphragm. The 4 series valves are available as remote pilot valves and may be converted to integral pilot using either the RCA3DM or RCA3PV screw-in pilots. Outlet is at 90° to inlet. The FS valve range features a larger diameter inlet providing higher performance than the DD, T or ST body styles.

**MAINTENANCE KITS**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>SHOCKWAVE</th>
<th>VITON</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIAPHRAGM KIT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCAC20FS4</td>
<td>K2034</td>
<td>K2033</td>
</tr>
<tr>
<td>20FS4 OUTLET SEAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCAC20FS4</td>
<td>G690338</td>
<td>G690338-2</td>
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</tbody>
</table>

**WEIGHTS**

<table>
<thead>
<tr>
<th>VALVE</th>
<th>KG (LB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCAC20FS4</td>
<td>0.52 (1.14)</td>
</tr>
</tbody>
</table>

**PRODUCT CHARACTERISTICS AND PERFORMANCE**

<table>
<thead>
<tr>
<th>NOMINAL PORT SIZE MM (INCH)</th>
<th>NUMBER OF DIAPHRAGMS</th>
<th>FLOW</th>
<th>PRESSURE RANGE KPA (PSI)</th>
<th>TEMPERATURE RANGE °C °(F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 (3/4)</td>
<td>1</td>
<td>19</td>
<td>30(5) to 860(125)</td>
<td>-40(–40) to 82(179.6)</td>
</tr>
<tr>
<td>22 (3/4)</td>
<td>2</td>
<td>26</td>
<td></td>
<td>-29(–20.2) to 232(449.6)</td>
</tr>
</tbody>
</table>

**EXAMPLES**

RCAC20FS4012

3/4˝ FS valve with 1/8˝ RC pilot port threads, Shockwave diaphragm.

**Note:**

1/8 Pilot available in NPT, RC and G Thread.
1/4 Pilot is only available in G Thread.

**ORDER CODE**

RCAC20FS4 0 1 2

Diaphragm material:

1=Viton
2=Shockwave

Thread type:

0=NPT
1=RC
2=G
RCAC25FS4 - REVERSE PULSE JET VALVES

CONSTRUCTION

Body: Aluminium (diecast)
Screws: 304 Stainless steel
Dresser: Nitrile & EPDM or Viton
Diaphragm: Proprietary high performance engineering thermoplastic Elastomer or Viton

MAINTENANCE

Before conducting any maintenance activity on the system ensure that components are fully isolated from pressure and power supplies. Pressure and power should not be reapplied until the valve has been fully assembled.

Diaphragm and pilot inspection should be conducted annually.

OPERATION

Recommended on-time range: 50 to 500 ms
Recommended time between pulses: 1 minute or greater

Please Note: We recommend using Schedule 40 pipe. Thickness OD is as shown below.

MAINTENANCE KITS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>SHOCKWAVE</th>
<th>VITON</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALVE</td>
<td>K2546</td>
<td>K2551</td>
</tr>
<tr>
<td>RCAC25FS4</td>
<td>G690763</td>
<td>G690763-2</td>
</tr>
</tbody>
</table>

DESCRIPTION

High-performance diaphragm valve with a flanged inlet port and slide seal outlet port. Equipped with ‘Shockwave’ springless diaphragm. The 4 series valves are available as remote pilot valves and may be converted to integral pilot using either the RCA3DM or RCA3PV screw-in pilots. Outlet is at 90° to inlet. The FS valve range features a larger diameter inlet providing higher performance than the DD or T body styles.

SUITE FOR

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations, including bag filters, cartridge filters and envelope filters, ceramic filters and sintered metal fibre filters.

PRODUCT CHARACTERISTICS AND PERFORMANCE

<table>
<thead>
<tr>
<th>NOMINAL PORT SIZE MM [INCH]</th>
<th>NUMBER OF DIAPHRAGMS</th>
<th>FLOW KV</th>
<th>FLOW CV</th>
<th>PRESSURE RANGE KPA (PSI)</th>
<th>TEMPERATURE RANGE °C *(°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 [1]</td>
<td>1</td>
<td>34</td>
<td>40</td>
<td>30(5) to 860(125)</td>
<td>-40(-40) to -29(-20.2) to 232(449.6)</td>
</tr>
</tbody>
</table>

EXAMPLES

RCAC25FS4012
1” FS valve with 1/8” RC pilot port thread, Shockwave diaphragm.

Note:
1/8 Pilot available in NPT, RC and G Thread.
1/4 Pilot is only available in G Thread.

ORDER CODE

<table>
<thead>
<tr>
<th>Pilot size</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diaphragm material</td>
<td>1=Viton</td>
<td>2=Shockwave</td>
<td></td>
</tr>
<tr>
<td>Thread type</td>
<td>0=NPT</td>
<td>1=RC</td>
<td>2=G</td>
</tr>
</tbody>
</table>
**DIAPHRAGM SERVICE KITS FOR DELETED VALVES**

**Maintenance kits**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>NITRILE</th>
<th>VITON</th>
<th>LOW TEMPERATURE –60°C (–76°F) MIN.</th>
<th>INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA/RCA20FS</td>
<td>K2000</td>
<td>K2007</td>
<td>NA</td>
<td>Diaphragm kits include main and secondary diaphragms (where required) and all springs.</td>
</tr>
<tr>
<td>CA/RCA25FS</td>
<td>K2501</td>
<td>K2503</td>
<td>K2504</td>
<td></td>
</tr>
</tbody>
</table>
Note: The information and data contained in this document are based on our general experience and are believed to be correct. They are given in good faith and are intended to provide a guideline for the selection and use of our products. Since the conditions under which our products may be used are beyond our control, this information does not imply any guarantee of final product performance and we cannot accept any liability with respect to the use of our products. The quality of our products is guaranteed under our conditions of sale. Existing industrial property rights must be observed.