Pneumatic Valve Actuators
SC/V: Pneumatic Valve Actuators

Our pneumatic linear piston actuators are designed to drive control valves for the most demanding applications in the power and oil & gas industries; such as turbine bypass, steam conditioning valves, desuperheaters, compressors and antisurge. Thanks to the special patented piston design, including a double ring guiding system and a grease channel providing continuous lubrication, SC/V actuators ensure smooth and precise valve operation without any maintenance for the whole operating life. This series of actuators are designed with a patented plug-in connection system for a wide range of customer-tailored accessories and control systems to meet the most demanding and critical valve operating conditions.

Key features

- Several sizes available from 150 mm to 1600 mm or larger if required
- Several strokes available
- Double acting and single or double acting plus spring design
- Die casting aluminum bodies for small/medium sizes up to ND 320
- Carbon steel bodies for larger sizes

Benefits

- **Capability**
  Available in single/duplex/triplex configuration for thrust and space optimization. Double acting or spring return
- **Safety**
  SC/V actuators are designed to meet SIL 3 requirements (IEC61508) as a “single device”. SIL analysis report of the safety loop available on request
- **Flexibility**
  Manifold mounted 3 way valves and accessories for optimal performances and increased safety
- **Built in permanent lubrication system**
  Patented piston design with double ring guiding system and grease channel which makes it virtually maintenance free
- **Long operating life**
  Double guide for piston and bushing
- **Protection**
  Exhaust mufflers with integral non return valve to prevent contamination of actuator internals
- **Total capability in valve actuation**
- **LNG project actuator for antisurge**
- **Manifold mounted for flexibility and increased safety**
Product specification and dimensions

Certifications / approvals
- PED 2014/68/EU
- ATEX 2014/34/EU
- EAC TR TS 012/2011
- MACHINERY DIRECTIVE 2006/42/EC
- IP66/67M according to IEC/EN 60529
- SIL3 certified (IEC 61508) as a “single device”
- Designed and tested in accordance with EN 15714-3
- Further certifications are available please contact IMI STI for updated list.

Dimensions

<table>
<thead>
<tr>
<th>Casting Material</th>
<th>Size/Stroke</th>
<th>1 SC/V actuator mm</th>
<th>2 Max. stroke mm</th>
<th>3 Active Area cm²</th>
<th>4 Thrust at 500 kPa supply daN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machined (Steel)</td>
<td>150/40</td>
<td>40</td>
<td>177</td>
<td></td>
<td>885</td>
</tr>
<tr>
<td></td>
<td>200/65</td>
<td>67</td>
<td>319</td>
<td>1595</td>
<td></td>
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<tr>
<td></td>
<td>200/100</td>
<td>103</td>
<td>319</td>
<td>1595</td>
<td></td>
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<tr>
<td></td>
<td>200/150</td>
<td>153</td>
<td>319</td>
<td>1595</td>
<td></td>
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<tr>
<td></td>
<td>250/80</td>
<td>80</td>
<td>497</td>
<td>2485</td>
<td></td>
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<tr>
<td></td>
<td>250/100</td>
<td>103</td>
<td>497</td>
<td>2485</td>
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<td></td>
<td>250/150</td>
<td>153</td>
<td>497</td>
<td>2485</td>
<td></td>
</tr>
<tr>
<td>Machined (Steel)</td>
<td>320/100</td>
<td>103</td>
<td>794</td>
<td>3970</td>
<td></td>
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<tr>
<td></td>
<td>320/200</td>
<td>205</td>
<td>794</td>
<td>3970</td>
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<tr>
<td></td>
<td>320/300</td>
<td>305</td>
<td>794</td>
<td>3970</td>
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</table>

Further information and specific technical support may be obtained by contacting IMI STI sales organization.

Optional accessories

IMI STI designs and produces a wide range of accessories and control systems to ensure superior performance and to satisfy the most demanding requirements in modulating, on/off and heavy duty service. Control systems panels/cabinets can be installed on the actuators or supplied loose for remote mounting which allows for easy access and limits exposure to excess heat and vibration. For more information, see dedicated brochure of accessories.

The picture shows a double acting SC/V 1400 with manual hydraulic override. High flow 3-way pneumatic valves are used to achieve very fast opening/closing time.