Piezocomposite – stack type actuators series PStVS with preload

Series PStVS with casing and preload, diameter 45 mm, 1000 V

Characteristics:
- max. load: 70000 N
- max. force generation: 50000 N (@ max. voltage)
- preload: 6000 N (= max. tensile force)

Applications:
- shock wave generation
- stabilization
- sensor testing
- test and acceleration sensors
- active vibration damping
- fuel injection
- active engine mounting
- as well as all positioning tasks which require high loads and/or extreme accelerations

Options:
- piezo material: HP (high power, high capacitance)
- low temperature modification
- UHV modification
- thermo stable
- cooling fins on request
- SG measurement system
- axial cable exit
- increased preload
- planar/convex output

Standard configuration

<table>
<thead>
<tr>
<th></th>
<th>unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>cable length</td>
<td>m</td>
</tr>
<tr>
<td>connector</td>
<td>D-Sub 5W1</td>
</tr>
<tr>
<td>ceramic</td>
<td>HS/HT</td>
</tr>
<tr>
<td>temperature range</td>
<td>°C/°F</td>
</tr>
<tr>
<td></td>
<td>to 200/to 390</td>
</tr>
<tr>
<td></td>
<td>to 90/to 190</td>
</tr>
</tbody>
</table>

* optional on request
### Piezocomposite – stack type actuators series PStVS with preload

#### Series PStVS 1000 V, diameter 45 mm

<table>
<thead>
<tr>
<th>type</th>
<th>max. stroke* [µm]</th>
<th>length [mm]</th>
<th>capacitance [nF]</th>
<th>stiffness** [N/µm]</th>
<th>resonant frequency [kHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSt 1000/35/7 VS45</td>
<td>12/7</td>
<td>33</td>
<td>300</td>
<td>4000</td>
<td>37</td>
</tr>
<tr>
<td>PSt 1000/35/20 VS45</td>
<td>27/20</td>
<td>42</td>
<td>800</td>
<td>2000</td>
<td>33</td>
</tr>
<tr>
<td>PSt 1000/35/40 VS45</td>
<td>55/40</td>
<td>60</td>
<td>1600</td>
<td>1000</td>
<td>28</td>
</tr>
<tr>
<td>PSt 1000/35/60 VS45</td>
<td>80/60</td>
<td>78</td>
<td>2500</td>
<td>600</td>
<td>25</td>
</tr>
<tr>
<td>PSt 1000/35/80 VS45</td>
<td>105/80</td>
<td>96</td>
<td>3300</td>
<td>450</td>
<td>21</td>
</tr>
<tr>
<td>PSt 1000/35/100 VS45</td>
<td>130/100</td>
<td>114</td>
<td>4100</td>
<td>350</td>
<td>18</td>
</tr>
<tr>
<td>PSt 1000/35/125 VS45</td>
<td>160/125</td>
<td>134</td>
<td>4900</td>
<td>300</td>
<td>14</td>
</tr>
<tr>
<td>PSt 1000/35/150 VS45</td>
<td>200/150</td>
<td>154</td>
<td>5700</td>
<td>220</td>
<td>7</td>
</tr>
<tr>
<td>PSt 1000/35/200 VS45</td>
<td>260/200</td>
<td>194</td>
<td>6500</td>
<td>150</td>
<td>4</td>
</tr>
<tr>
<td>PSt 1000/35/&gt;200 VS45</td>
<td>&gt;200</td>
<td>on request</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

* Motion at voltage -200 V to 1000/0 V to 1000 V
** Determined with short-circuited actuator respectively connected amplifier.

### Drawing:

![Drawing of Piezocomposite – stack type actuators series PStVS with preload]

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