AXIAL FORCE LIMITER

Up to 4,700 N of force and 20 mm shaft

DSA

ComInTec®
Technology for Safety

01-2015
DSA - axial force limiter: introduction

- Axially backlash free.
- Protection in both tension and compression.
- Free movement in tension and compression after release.
- Automatic re-engagement in the exact position of disengagement.
- Innovative calibration system by “H dimension” for an immediate calibration of the device.
- Made of steel fully turned with special high mechanical strength.
- No maintenance for high reliability in the time.

ON REQUEST
- Complete with drive rods and rod ends.
- Sensor or switch mounted in axial or radial position.
- Possibility of customization for specific applications.
- Possibility of surface treatments for corrosion-specific needs.

Safety coupling with linear limitation of force. Releasing both in compressive and tension once it reaches the calibration force. The setting force can be adjusted by turning the adjuster nut onto the springs and re-engagement is automatic. Possibility of connecting linear motion also very distant from each other.

### MAIN APPLICATIONS
- Shaft mounted gearboxes.
- Cam/Eccentric movements.
- Transactions structured for pushers and slides.
- Crank mechanism.

### ADVANTAGES AND BENEFITS
- Protect shaft mounted gearboxes overloads on the transmission.
- Protect slides or other moving parts from accidental shock or collision limit.
- Protect movements typically jams or improperly placements.
- Protect the final product from crushing or deformation.

### ASSEMBLY EXAMPLES

- Eccentric with linear slide
- Torque arm of Gearbox
- Pusher
DSA - axial force limiter: introduction

- High axial stiffness.
- Compact.
- Immediate interruption of power in case of overload.
- Continuous adjustment of the intervention force.
- Possibility of mechanical limit to prevent the slipping of the central pin after disengagement.
- Force range: 25-4,700 N.

**DIMENSIONS AND TECHNICAL DETAILS**

<table>
<thead>
<tr>
<th>Size</th>
<th>Force [N]</th>
<th>A</th>
<th>B</th>
<th>D</th>
<th>G</th>
<th>G1</th>
<th>M</th>
<th>N</th>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>T</th>
<th>V</th>
<th>Z</th>
<th>Weight [Kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>T0</td>
<td>25 - 90</td>
<td>30,5</td>
<td>14</td>
<td>2</td>
<td>22</td>
<td>M6x0,75</td>
<td>7</td>
<td>10</td>
<td>36,5</td>
<td>5</td>
<td>7</td>
<td>50</td>
<td>66</td>
<td>0,3</td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>55 - 500</td>
<td>38</td>
<td>18</td>
<td>28</td>
<td>6xM5</td>
<td>M10x0,75</td>
<td>11</td>
<td>14</td>
<td>42</td>
<td>9</td>
<td>10</td>
<td>61</td>
<td>85</td>
<td>0,5</td>
<td></td>
</tr>
<tr>
<td>T2</td>
<td>295 - 1300</td>
<td>50</td>
<td>25</td>
<td>3</td>
<td>37</td>
<td>6xM6</td>
<td>M12x1</td>
<td>13</td>
<td>20</td>
<td>56</td>
<td>10</td>
<td>11</td>
<td>78</td>
<td>105</td>
<td>1,1</td>
</tr>
</tbody>
</table>

**PRX - inductive proximity sensor: technical data**

- Standard version with brass cover with protection IP67 DIN 40050.
- Electric contact 5 ÷ 24 VCC and working frequency 2000 Hz.
- Operating temperature from -20°C to +70°C.
- Output: NPN (N.O. - N.C.); PNP (N.O. - N.C.).
- Intervention distance: max 1 mm.
- Cable length: 2 meter (3x0,2).
### ORDER EXAMPLE MODULE ONLY

#### AXIAL FORCE LIMITER

<table>
<thead>
<tr>
<th>Size</th>
<th>Model</th>
<th>Force / Springs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DSA</td>
<td>T0</td>
</tr>
</tbody>
</table>

**Size** from 1 to 3

**Springs**
- T0
- T1
- T2

#### SENSOR

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRX M8 NPN NO</td>
</tr>
</tbody>
</table>

### ORDER EXAMPLE COMPLETE GROUP

#### AXIAL FORCE LIMITER

<table>
<thead>
<tr>
<th>Size</th>
<th>Model</th>
<th>Force / Springs</th>
<th>Compression Stroke / Traction Stroke</th>
<th>Ltot</th>
<th>Rod ends</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DSA</td>
<td>T0</td>
<td>50 mm / 50 mm</td>
<td>302 mm</td>
<td>M8</td>
</tr>
</tbody>
</table>

**Size** from 1 to 3

**Springs**
- T0
- T1
- T2

#### SENSOR / MICROSWITCH

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRX M8 NPN NO</td>
</tr>
</tbody>
</table>

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**Note:**
- DSA - axial force limiter: additional information
- Size Model Force / Springs
- Compression Stroke / Traction Stroke
- Ltot Rod ends