PEDESTRIAN PROTECTION
INDIVIDUAL & INNOVATIVE
PUSHING ACTUATORS
FOR ACTIVE HINGES & LATCHES

The actuator can fulfill following functions, based on your requirements and specifications:
• Fixation starting position
• Fixation end position
• NVH conformity
• Defined retention force over time
• Resetting after reaching end position
• Resetting with defined force
• Damping head impact
• Oscillation damping

CHARACTERISTICS

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuator type</td>
<td>Pushing piston</td>
</tr>
<tr>
<td>Activation time</td>
<td>2 - 40 ms</td>
</tr>
<tr>
<td>Piston stroke</td>
<td>5 - 130 mm</td>
</tr>
<tr>
<td>F max</td>
<td>7 500 N</td>
</tr>
<tr>
<td>Fixation forces</td>
<td></td>
</tr>
<tr>
<td>start position</td>
<td>1 000 N</td>
</tr>
<tr>
<td>end position</td>
<td>5 000 N</td>
</tr>
<tr>
<td>Design</td>
<td>Linear</td>
</tr>
<tr>
<td>Interfaces</td>
<td>Leadwire or Pintype</td>
</tr>
<tr>
<td>Noise exposure</td>
<td>&lt; 95 dB</td>
</tr>
<tr>
<td>Specification</td>
<td>According customers demand</td>
</tr>
</tbody>
</table>

Benefits:
• Extreme fast reaction times
• Stable and reliable performance over lifetime
• Compact and robust design
• No flaming and no hot gases
• Various integration options possible
• Cost efficient & light weight
ACTIVE HOD SYSTEMS PROVIDE CLEARANCE BETWEEN HOOD AND ENGINE IN THE EVENT OF A PEDESTRIAN COLLISION BY LIFTING THE HOOD. THE GENERATED CLEARANCE GRANTS THAT THE HEAD DOES NOT HIT RIGID COMPONENTS.

The actuators rise the hood directly or can be integrated within the hinges or latches. Our customers benefit from our experience as market leader for pyrotechnic actuators. This leads to reduced development time, efforts and costs.
HIRTENBERGER DEPARTMENT CENTER

Benefits:

- Prototyping fast & precise, time & cost saving
- Extreme fast modifications possible
- Testing in system environment
- Immediate analysis after testing
- Development & support from concept to series production
WHO WE ARE
Hirtenberger Automotive Safety specializes in developing and producing advanced pyrotechnic solutions for systems to protect pedestrians and occupants, as well as for non-automotive applications. Our highly innovative developments bring technological and competitive advantages wherever they are used.

OUR CUSTOMERS
Hirtenberger is a supplier and development partner to almost all leading OEMs and Tier 1 suppliers. Since our founding in 1993 we have produced hundreds of millions micro gas generators and pyrotechnic actuators for the automotive industry. We entered the automotive sector as a Tier 2 supplier and worked our way up to become a Tier 1 supplier, and now supply leading automakers.