Based on the reliable and well proven Centork electric actuators design, the Special mutliturn actuators are completing the need, in certain industries, for actuators with a hydraulic or pneumatic supply media in mutliturn applications with position and applied torque control.

Consisting basically in the use of hydraulic or pneumatic motors instead of the usual electric motor. With this solution all the mechanical characteristics of the Centork electric actuators are maintained, but using hydraulic or pneumatic supply.

**HYDRAULIC MOTOR**
Reversible vane motor that includes a wide range of supply pressures and flow rates (30 to 120 bars).

**PNEUMATIC MOTOR**
Reversible vane motor with supply pressures from 2 to 10 bars.

**PTCS**
Patented planetary gearing system, controlling the applied torque, that features:
- High mechanical efficiency (>95%).
- Precise control of the applied torque/thrust.
- Silent service.
- Highly reduced volume.

The gearing are lubricated for life, therefore reducing maintenance.

**AMBIENT PROTECTION**
All the Centork actuators are IP67 (IP68 as option).
Different painting protection coatings for highly corrosive atmospheres (ships, offshore platforms) are available.
Options for different explosive atmospheres protection degrees.

**ACTUATOR-VALVE COUPLING**
Based on ISO 5210 or 5211 standards, features different couplings modes for all types of valves.

### QUARTER-TURN ACTUATORS, 4H0 • 4PD SERIES + CW (+FCW)

<table>
<thead>
<tr>
<th>MODELOS</th>
<th>4H0-006+CW045</th>
<th>4H0-006+CW100</th>
<th>4H0-012+CW200</th>
<th>4H0-025+CW400</th>
<th>4H0-012+CK70</th>
<th>HIGHER TORQUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Torque</td>
<td>Nm</td>
<td>550</td>
<td>1000</td>
<td>2100</td>
<td>4000</td>
<td>6300</td>
</tr>
<tr>
<td>Output Flange</td>
<td>ISO5211</td>
<td>F07/F10</td>
<td>F10/F12</td>
<td>F14</td>
<td>F16</td>
<td>F25</td>
</tr>
<tr>
<td>Operating time for 90° at 50Hz</td>
<td>sec.</td>
<td>4-102</td>
<td>5-136</td>
<td>5-136</td>
<td>5-136</td>
<td>15-637</td>
</tr>
<tr>
<td>Supply</td>
<td>Pneumatic: 3 to 10 bar</td>
<td>Hydraulic: 30 to 140 bar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**ELECTRICAL CONNECTION**

All the electrical signals wiring is integrated in a single enclosure protected from the ambient conditions (IP67 or IP68 protection).

**SWITCHING AND SIGNALLING UNIT**

Including all the electric actuators characteristic elements, integrated in a single control unit.

**MANUAL OPERATION**

Provides emergency manual operation. The motor drive priority is always maintained.

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**OPTIONS**

- Switching and signalling unit:
  - Torque switches.
  - Potentiometer.
  - Electronic position transmitter (4-20 mA).
  - Mechanical position indicator.

- Hydraulic supply Oil Set or Pneumatic supply Air Set.

- Hydraulic or Pneumatic Control cabinets.

- Centronik unit. Integration on DCS systems.

- Digital communication. Fieldbuses.

- ATEX Certification. Exia (intrinsic safety) or Eexd (explosion-proof) protection modes.

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**MULTITURN ACTUATORS. 4H0 / 4H1 • 4P0 / 4P1 SERIES**

<table>
<thead>
<tr>
<th>MODELS</th>
<th>4H0-006/4H1-006</th>
<th>4H0-012/4H1-012</th>
<th>4H0-025/4H1-025</th>
<th>4H1-050</th>
<th>4H1-100</th>
<th>4H1-200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Torque</td>
<td>Nm</td>
<td>60</td>
<td>120</td>
<td>250</td>
<td>500</td>
<td>1000</td>
</tr>
<tr>
<td>Output Flange</td>
<td>ISO5210</td>
<td>F07/F10</td>
<td>F10</td>
<td>F14</td>
<td>F14</td>
<td>F16</td>
</tr>
<tr>
<td>Available speeds</td>
<td>1/min.</td>
<td>7-224</td>
<td>4-175</td>
<td>4-175</td>
<td>4-175</td>
<td>2-56</td>
</tr>
<tr>
<td>Supply</td>
<td>Pneumatic: 3 to 10 bar</td>
<td>Hydraulic: 30 to 140 bar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**LINEAR ACTUATORS. 4H0 • 4P0 SERIES + LC**

<table>
<thead>
<tr>
<th>MODELOS</th>
<th>4H0-006+LC23</th>
<th>4H0-012+LC38</th>
<th>4H0-025+LC64</th>
<th>4H1-050+LC125</th>
<th>4H1-100+LC200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Thrust</td>
<td>KN</td>
<td>23</td>
<td>38</td>
<td>64</td>
<td>125</td>
</tr>
<tr>
<td>Output Flange</td>
<td>F07/F10</td>
<td>F10</td>
<td>F14</td>
<td>F14</td>
<td>F16</td>
</tr>
<tr>
<td>Available speeds</td>
<td>mm/min.</td>
<td>30-280</td>
<td>38-336</td>
<td>36-392</td>
<td>36-392</td>
</tr>
<tr>
<td>Supply</td>
<td>Pneumatic: 3 to 10 bar</td>
<td>Hydraulic: 30 to 140 bar</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>