Articulated robots are ideal for applications that require complex movements, such as dispensing or machine loading and unloading. For applications requiring flexible movement without sacrificing speed or reliability, the CRS CataLyst-5™ provides these and five degrees of freedom. The CRS CataLyst-5™ also offers a linear track option for tending multiple machines.

Key Benefits and Features:

- Fast: increased throughput and efficiency
- Robust: designed to run 24/7
- Automatic homing: lets you start moving payloads on power up
- End-of-arm connector: lets you integrate end-of-arm devices
- Easy to integrate: advanced software reduces programming time

CRS CataLyst-5™ robots can be programmed using Thermo Electron’s powerful, yet easy to learn CRS RAPL-3™ language or with our CRS ActiveRobot™ software. CRS ActiveRobot™ allows CRS CataLyst-5™ robots to be controlled by any object oriented programming language such as Visual Basic®, Visual C++, Delphi™, or J++®.
**Work Envelope**

**Range of Motion:**

<table>
<thead>
<tr>
<th>Dimensions in inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>R10,000</td>
</tr>
<tr>
<td>R20,000</td>
</tr>
<tr>
<td>R9,235</td>
</tr>
<tr>
<td>R9,010</td>
</tr>
<tr>
<td>R10,000</td>
</tr>
<tr>
<td>9,571</td>
</tr>
<tr>
<td>5.591</td>
</tr>
<tr>
<td>9,010</td>
</tr>
<tr>
<td>9,571</td>
</tr>
<tr>
<td>0.943</td>
</tr>
<tr>
<td>29.011</td>
</tr>
<tr>
<td>18.854</td>
</tr>
<tr>
<td>2.171</td>
</tr>
</tbody>
</table>

**CRS Catalyst-5 Five Axis Robot**

**Work Envelope Range of Motion:**

**Accessory Equipment**
- CRS Servo and pneumatic gripper
- CRS ActiveRobot™ programming software
- Robcomm3 PC-based development software
- Teach Pendant
- Linear Track

**Features**
- Fast, robust, cost effective
- Automatic homing: start moving payloads on power up
- End-of-arm connector
- Easy to integrate using advanced CRS RAPL-3™, CRS ActiveRobot™, or CRS POLARA™ software.

**Performance Specifications**
- Payload: 1kg (2.2lb)
- Reach (std. gripper): 660 mm (25.98 in.)
- Repeatability: +/- 0.05mm ( +/- 0.002 in.)
- Weight: 19kg (41.8lb)

**Speed and Workspace**

<table>
<thead>
<tr>
<th>Axis</th>
<th>Workspace</th>
<th>Max Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1 (waist)</td>
<td>360°</td>
<td>210°/second</td>
</tr>
<tr>
<td>J2 (shoulder)</td>
<td>110°</td>
<td>210°/second</td>
</tr>
<tr>
<td>J3 (elbow)</td>
<td>125°</td>
<td>210°/second</td>
</tr>
<tr>
<td>J4 (wrist pitch)</td>
<td>220°</td>
<td>552°/second</td>
</tr>
<tr>
<td>J5 (wrist roll)</td>
<td>360°</td>
<td>1102°/second</td>
</tr>
</tbody>
</table>

**Safety Compliance Standards**
- CE (European)
- EM Immunity: EN50082-2:1992
- ISO 10218:1992 (E)
- EN60204-1:1992
- EN292:1997
- EN654-1997 CAT-1
- ANSI/RIA: 15.06-1992
- CSA (Canadian) Process Control Equipment
  - CSA Std: C22.2 No. 2434-94
  - Motor Operated: CAN/CSA-C22.2 No 68-92

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Articulated robots are ideal for applications that require complex movements, such as dispensing or machine loading and unloading. For applications requiring flexible movement without sacrificing speed or reliability, the CRS F3™ provides these and six degrees of freedom. The CRS F3™ also offers a linear track option for tending multiple machines.

CRS F3™ robots can be programmed using Thermo Electrons powerful, yet easy to learn CRS RAPL-3™ language or with our CRS ActiveRobot™ software. CRS ActiveRobot™ allows CRS F3™ robots to be controlled by any object oriented programming language such as Visual Basic®, Visual C++, Delphi™, or J++®.

Key Benefits and Features:
- Fast: increased throughput and efficiency
- Robust: designed to run 24/7
- Absolute encoders: no homing necessary
- Rated Class 100 for clean room duty
- Easy to integrate: advanced software reduces programming time

Education • Material Application • Material Handling • Assembly • Product Testing
**Features**
- Fast, robust, cost effective
- Six degrees of freedom
- Upright, inverted or track mounting
- Absolute encoders, no homing
- 16 Inputs/16 Outputs (4 Relay)

**Performance Specifications**
- **Payload**
  - 3kg (nominal)
  - 6.6lb
- **Reach (no gripper)**
  - 710 mm
  - 28 in.
- **Reach (std. gripper)**
  - 863 mm
  - 34.0 in.
- **Repeatability**
  - +/- 0.05mm
  - +/- 0.002 in.
- **Weight**
  - 53 kg
  - 115 lb

**Speed and Workspace**
- **Axis**
  - J1 (waist)
  - ± 180°
  - ± 135° / ± 45°
- J2 (shoulder)
  - ± 135°
- J3 (elbow)
  - ± 180°
  - ± 135°
- J4 (wrist rotate)
  - ± 180°
  - ± 135°
  - unlimited
- J5 (wrist pitch)
  - ± 135°
- J6 (wrist roll)
  - unlimited
- **Max Speed**
  - 240°/second
  - 210°/second
  - 240°/second
  - 375°/second
  - 300°/second
  - 375°/second

**Options**
- CRS Servo and pneumatic gripper
- CRS ActiveRobot™ programming software
- CRS Robcomm3 PC based development software
- CRS Teach Pendant
- CRS Linear Track
- Fully integrated ATI force/torque sensor
- End of Arm I/O
- Dual pneumatic tooling option

**Dimensions in mm**

**Safety Compliance Standards**
- CE (European)
- EM Immunity: EN50082-2:1992
- Machine Safety: EN775:1992
- ISO 10218:1992 (E)
- EN60204-1:1992
- EN954:1997 CAT-1
- ANSI/RIA 15.06:1992
- CSA (Canadian) Process Control Equipment
- CSA Std: C22.2 No. Z434-94
- Motor Operated: CAN/CSA-C22.s No 68-92
- Appliances

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