Single Channel Rotary Joints with N Connectors

305 & 344 Series, Coaxial In-Line, Type “N”, Male and Female

Features

- **Average Power**: 500 watts at 1 GHz
- **Peak Power**: 10 kW
- **Designed for MIL-E-5400 Class 2**
- **Type “N” Connectors**
- **High Reliability**

APITech offers a full line of single channel rotary joints with N connectors. The 305 and 344 series rotary joints are designed for military and commercial markets and applications such as mobile satellite communication systems, radar systems including civil air traffic control and weather radars. These ultra reliable rotary joints are ideal for high speed operation and can be used up to 500 RPM (305 Series), or 1500 RPM (344 Series). APITech’s line of rotary joints has been designed to MIL-E-5400 Class II.

Testing Specifications

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Part Number</th>
<th>Frequency DC-12.4 (GHz)</th>
<th>Insertion Loss (dB)</th>
<th>VSWR</th>
<th>VSWR Wow</th>
<th>Power at 1 GHz</th>
<th>Max DC Current (Amps)</th>
<th>Weight (Oz)</th>
<th>Torque (In-Oz)</th>
<th>Rotation Rate (RPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>305W</td>
<td>P1-5654G2</td>
<td>DC - 6</td>
<td>&lt; 0.20</td>
<td>1.15:1</td>
<td>1.01</td>
<td>10</td>
<td>500</td>
<td>10</td>
<td>8</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 - 10</td>
<td>&lt; 0.25</td>
<td>1.30:1</td>
<td></td>
<td>10</td>
<td>500</td>
<td>10</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 - 12.4</td>
<td>&lt; 0.30</td>
<td>1.50:1</td>
<td></td>
<td>10</td>
<td>500</td>
<td>10</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>305WF</td>
<td>P1-5654G8</td>
<td>DC - 6</td>
<td>&lt; 0.20</td>
<td>1.15:1</td>
<td>1.01</td>
<td>10</td>
<td>500</td>
<td>10</td>
<td>9</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 - 10</td>
<td>&lt; 0.25</td>
<td>1.30:1</td>
<td></td>
<td>10</td>
<td>500</td>
<td>10</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 - 12.4</td>
<td>&lt; 0.30</td>
<td>1.50:1</td>
<td></td>
<td>10</td>
<td>500</td>
<td>10</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>344</td>
<td>P1-5760G2</td>
<td>DC - 6</td>
<td>&lt; 0.20</td>
<td>1.15:1</td>
<td>1.01</td>
<td>10</td>
<td>500</td>
<td>10</td>
<td>4</td>
<td>1500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 - 10</td>
<td>&lt; 0.25</td>
<td>1.30:1</td>
<td></td>
<td>10</td>
<td>500</td>
<td>10</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 - 12.4</td>
<td>&lt; 0.30</td>
<td>1.50:1</td>
<td></td>
<td>10</td>
<td>500</td>
<td>10</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>344F</td>
<td>P1-5760G1</td>
<td>DC - 6</td>
<td>&lt; 0.20</td>
<td>1.15:1</td>
<td>1.01</td>
<td>10</td>
<td>500</td>
<td>10</td>
<td>5</td>
<td>1500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 - 10</td>
<td>&lt; 0.25</td>
<td>1.30:1</td>
<td></td>
<td>10</td>
<td>500</td>
<td>10</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 - 12.4</td>
<td>&lt; 0.30</td>
<td>1.50:1</td>
<td></td>
<td>10</td>
<td>500</td>
<td>10</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

NOTES:

1. **WOW (max. VSWR/min. VSWR) is 1.01 max per 360**

Models designated F is flanged styles for gimbal

APITech’s 305 and 344 series rotary joints come standard with male and female N connectors, frequency coverage from DC - 12.4, and peak power at 10kW. APITech offers a line of standard catalog parts as well as custom options including a variety of connector types, orientation, mounting configurations, frequency optimization, testing requirements, and more.
Single Channel Rotary Joints with N Connectors

305 & 344 Series, Coaxial In-Line, Type “N”, Male and Female

Outline Drawings: 305 Series

Model 305W

All dimensions shown in decimal inches (mm). Specifications subject to change without notice.

For mounting instructions, additional specifications or other products, visit us online or contact the factory.
Single Channel Rotary Joints with N Connectors

305 & 344 Series, Coaxial In-Line, Type “N”, Male and Female

Outline Drawings: 344 Series

Model 344

Model 344F

All dimensions shown in decimal inches (mm). Specifications subject to change without notice.

For mounting instructions, additional specifications or other products, visit us online or contact the factory.
Single Channel Rotary Joints with N Connectors
305 & 344 Series, Coaxial In-Line, Type “N”, Male and Female

Typical Performance Graph: VSWR

Typical Performance Graph: Insertion Loss (dB)

NOTE:
- APITech “Standard Warranty and Order Terms and Conditions” apply to all orders.
- All specifications subject to change without notice.
- Check “Ordering and Available Listing” for delivery and ordering information.
- Contact our local Manufacturers Representative for pricing.