**X31-16 SERIES**  |  .031 [.800] Centers  |  .160 [4.06] Full Stroke

---

### Probe

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> Overall Probe Length</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ø.0243 [0.617]**

**Ø.0166 [0.42]** ID

**.075 [1.91]** (ref)

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**Razor Sharp Tip Styles**

- **S43P** - Chisel
- **S6RP** - Razor
- **S9RP** - Razor

---

### Probe P/N

**X31-PRP16**

<table>
<thead>
<tr>
<th>Letter</th>
<th>Material/Finish</th>
<th>Average Resistance</th>
<th>Current Rating <strong>&lt; 64mW/hr</strong></th>
<th>4.7 Amps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P</strong></td>
<td>Nickel silver/ID precious metal clad</td>
<td>&lt; 64mW/hr</td>
<td>4.7 Amps</td>
<td></td>
</tr>
</tbody>
</table>

**Digits Description**

- **P** 43, 6R, 9R

**Overall Probe Length (A)**  
**Plunger Length (B)**  
**.930 [23.62]**  
**.280 [7.11]**

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### Spring Force

**STROKE (mm)**

**FORCE (oz)**

**FORCE (gm)**

---

<table>
<thead>
<tr>
<th>Letter</th>
<th>Material/Finish</th>
<th>Cycle Life <strong>@ Stroke</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>L</strong></td>
<td>SS</td>
<td>300K @ .107 [2.72]</td>
</tr>
<tr>
<td><strong>S</strong></td>
<td>SS</td>
<td>25K @ .107 [2.72]</td>
</tr>
</tbody>
</table>

**Option Description**

- **N** No probe lubrication. Removing probe lubrication greatly reduces cycle life and should only be used in applications requiring operating temperatures below -45°C.

---

1. Current Rating is affected by spring material and lubrication choices. Standard lubrication has a 204°C maximum operating temperature limit. Before using probes near these current limits, please refer to Current Carrying Capacity and Operating Temperature Application Notes.
Wire Grip Sleeve

For use with G termination pins

P/N: WG31

Description
To accept 30AWG Kynar solid insulated wire (not included), stripped at .120 [3.05] Nylon sleeve, yellow

Tools & Accessories P/N

Pin Gauge:  
PG-X31-P (for Probe Plate)  
PG-X31-T (for Back Plate)

Termination Installation:  
ITRX31-FL*  
ITRX31 SET -.435, -.060 -.010, .020, .030, .040  
ITRX31 SET -.150 to .050 [-3.81 to 1.27]  
ITRX31E SET -.435 to -.150 [11.05 to 3.81]*

Termination Extraction:  
ETRX31  
ETRX31E (when Probe Plate is installed)*  
ETRX31-KIT (includes ITRX31-FL and ETRX31)

Probe Installation:  
PT50/39

Damaged Probe Tube Extraction:  
TERX31/039*

Wire Grip Installation:  
GTR31*

* Replaceable TIPS are available when applicable and noted above. Example ETRX31-TIP

Termination Pin

Termination Pin P/N  
Example: X31-TG-2G

<table>
<thead>
<tr>
<th>Letter</th>
<th>Material/Finish</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS3</td>
<td>Double-Ended for wireless testing. Order by part number above.</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Wire Grip: Heat treated BeCu/gold plated, accepts wire grip sleeve.</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Round Post. Heat treated BeCu/gold plated over nickel.</td>
<td></td>
</tr>
</tbody>
</table>

Body  

<table>
<thead>
<tr>
<th>Digit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Only available in TR</td>
</tr>
<tr>
<td>2</td>
<td>Only available in TG</td>
</tr>
</tbody>
</table>

Option  

<table>
<thead>
<tr>
<th>Digit</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1     | X31-TG-2G with WG31 wire grip sleeve  
(Blank) No option required |

Suggested mounting holes and drill sizes in AT7000, G10/FR4 or similar materials should be gauged at:

<table>
<thead>
<tr>
<th>Plates</th>
<th>Hole Size</th>
<th>Drill Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probe Plate</td>
<td>.0250 / .0260 [0.635 / 0.660]</td>
<td>#71 or .65mm</td>
</tr>
<tr>
<td>Back Plate</td>
<td>.0217 / .0225 [0.551 / 0.572]</td>
<td>#74 or .57mm</td>
</tr>
</tbody>
</table>

US Patent No. 6,570,399 & 4,885,533

Replaceable TIPS are available when applicable and noted above. Example ETRX31-TIP