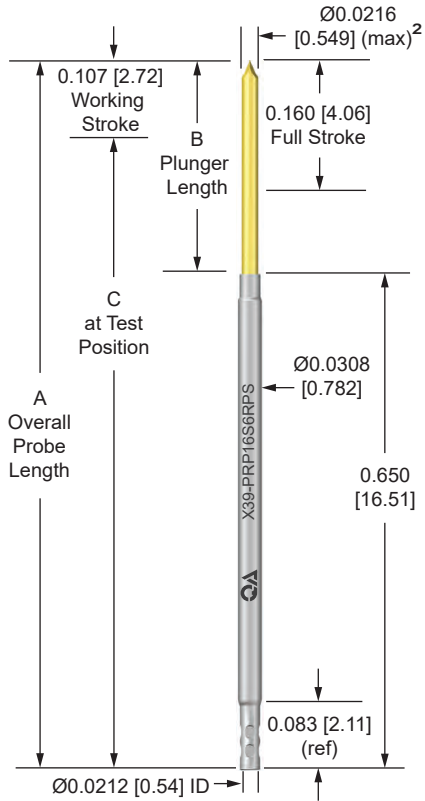


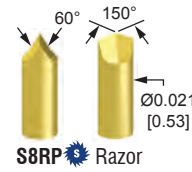


# X39-16 Series

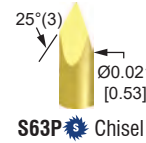
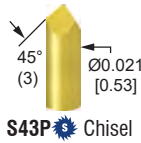
0.039 [1.00] Centers | 0.160 [4.06] Full Stroke



## RAZOR



## CHISEL



## CROWN



## SERRATED

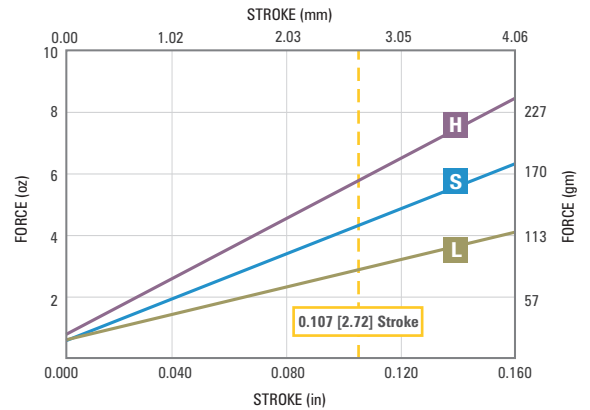


## PROBE P/N X39-PRP16 example: X39-PRP16S43PS

| Tube           | Letter                                     | Material/Finish   | Average Resistance            | Current Rating AMPS <sup>1</sup><br>120°C (204°C) <sup>3</sup> |                                  |         |
|----------------|--|---|-------------------------------|--|----------------------------------|---------|
|                | P  | Nickel silver/ID precious metal clad  | < 42 mOhms                    | 4.5 (6.2) <sup>3</sup>   |                                  |         |
| Tip Material   | Letter                                     | Material/Finish   |                               |  |                                  |         |
|                | B  | Heat treated BeCu/gold plated over nickel   |                               |  |                                  |         |
| S              | Heat treated steel/gold plated over nickel |   |                               |  |                                  |         |
| Tip Style      | Digits                                     | Description   |                               |  |                                  |         |
| See Tips       | Tip style geometry based on target type    |   |                               |  |                                  |         |
| Plunger Length | Letter                                     | Tip Style Availability  | Overall Probe Length (A)      | Plunger Length (B)   | @ Test Position (C)              |         |
|                | H  | 39, 44  | 0.870 [22.10]                 | 0.220 [5.59]   | 0.763 [19.38]                    |         |
| P              | 43, 63, 6R, 8R, 9R                         | 0.930 [23.62]   | 0.280 [7.11]                  | 0.823 [20.90]  |                                  |         |
| Spring         | Letter                                     | Spring Force  | Preload @ 0.107 [2.72] Stroke | Material   | Cycle Life @ 0.107 [2.72] Stroke |         |
|                | L  | Low   | 0.8 [23g/0.22N]               | 3.0 [85g/0.83N]  | SS                               | 300,000 |
|                | S  | Standard  | 0.8 [23g/0.22N]               | 4.5 [128g/1.25N]   | SS                               | 300,000 |
|                | H  | High  | 1.0 [28g/0.28N]               | 6.0 [170g/1.67N]   | SS                               | 50,000  |
| Option         | Letter                                     | Description   |                               |  |                                  |         |
|                | N  | No probe lubrication. Removing lubrication greatly reduces cycle life and should only be used in applications outside of the working temperature range, see Testing in Extreme Working Temperatures application note for more details. <sup>3</sup> |                               |  |                                  |         |
|                |  | (Blank)   | No option required            |  |                                  |         |

<sup>1</sup> Current rating is affected by spring material and lubrication choice. Please refer to Current Carrying Capacity and Testing in Extreme Working Temperature applications notes for more details.  
<sup>2</sup> Maximum plunger OD should be used to calculate minimum guide plate clearance holes.  
<sup>3</sup> Working Temperature Range: -45°C to 120°C with lubrication. SS springs can be used up to 204°C without lubrication.

## SPRING FORCE

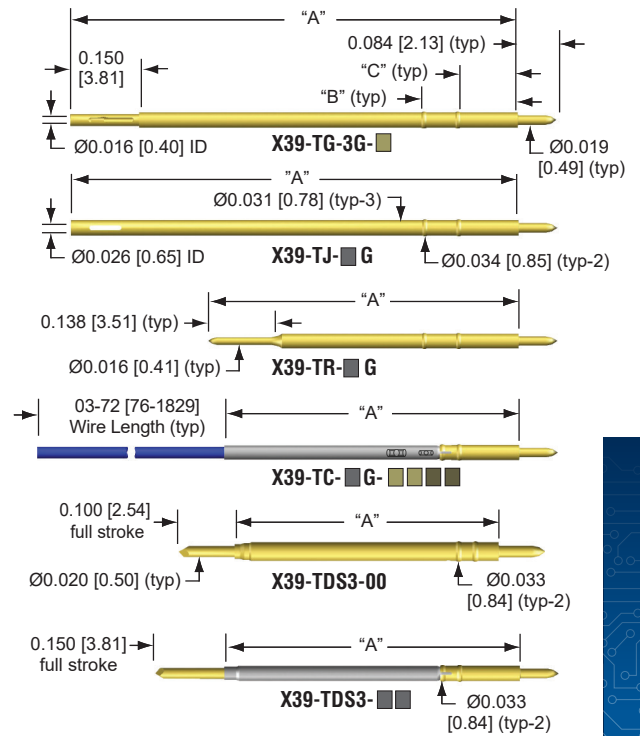


## TOOLS & ACCESSORIES

See pages 75-79 for order information.

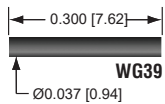
## TERMINATION PIN

Suggested mounting holes and drill sizes in AT7000, G10/FR4 or similar materials should be gauged in probe plate at 0.0315 / 0.0325 [0.800 / 0.826]; Drill Size #66 or 0.84mm and back plate at 0.0315 / 0.0325 [0.800 / 0.826]; Drill Size #66 or 0.84mm



X39-16 Series

## WIRE GRIP SLEEVE For use with G termination pins.

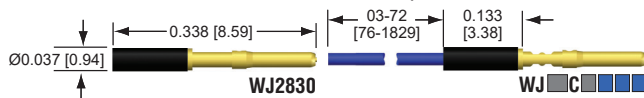


**P/N: WG39**

### Description/Material

To accept 30AWG Kynar solid insulated wire, stripped at 0.120 [3.05], (not included)  
Nylon sleeve, black

## WIRE JACK For use with J termination pins.



**P/N: WJ** example: WJ28C8230

| Digit | Description   |
|-------|---|
| 2830  | Wire Jack only (customer to crimp wire) brass/gold plated with nylon insulator. |
| 28C8  | 28 AWG Kynar insulated solid wire, pre-attached, specify color and length.      |
| 30C3  | 30 AWG Kynar insulated solid wire, pre-attached, specify color and length.      |

| Colors Available for 28C & 30C Termination |       |   |        |   |        |   |        |   |       |
|--|-------|---|--------|---|--------|---|--------|---|-------|
| 0  | Black | 2 | Red    | 4 | Yellow | 6 | Blue   | 8 | Gray  |
| 1  | Brown | 3 | Orange | 5 | Green  | 7 | Violet | 9 | White |

| Wire Length Available for 28C & 30C Termination |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|
| Specify Length in inches: 03 – 72 [76-1829]     |  |  |  |  |  |  |  |  |  |

| Option | Letter | Description   |
|--------|--------|---|
| S      |        | Stripped Length 0.000/0.669 [0.00/16.99]; Customer to specify in inches |

## TERMINATION PIN P/N

**X39-T** - **G** - **G** example: X39-TJ-2G

| Letter | Material/Finish  |
|--------|--|
| C      | Crimped. Termination material: Heat treated BeCu/gold plated over nickel. Tube material: ID precious metal clad. |
| DS3    | Double-ended for wireless testing. See page 69 for ordering details.   |
| G      | Wire Grip. Heat treated BeCu/gold plated over nickel, accepts wire grip sleeve.                                  |
| J      | Wire Jack. Heat treated BeCu/gold plated over nickel, accepts wire jack.   |
| R      | Round post. Heat treated BeCu/gold plated over nickel.   |

| Digits | Description           | A in (mm)     | B in (mm)    | C in (mm)    |
|--------|-----------------------|---------------|--------------|--------------|
| 0      | Only available in TC  | 0.582 [14.78] | 0.113 [2.87] | 0.065 [1.65] |
|        | Only available in TR  | 0.261 [6.63]  | 0.040 [1.02] | 0.000 [0.00] |
| 1      | Only available in TC  | 0.642 [16.31] | 0.173 [4.39] | 0.125 [3.18] |
|        | Only available in TJ  | 0.628 [15.95] | 0.077 [1.96] | 0.036 [0.91] |
| 2      | Only available in TR  | 0.675 [17.15] | 0.210 [5.33] | 0.125 [3.18] |
|        | Only available in TG  | 0.975 [24.77] | 0.210 [5.33] | 0.125 [3.18] |
|        | Only available in TJ  | 0.975 [24.77] | 0.210 [5.33] | 0.125 [3.18] |
| 4      | Only available in TJ  | 1.100 [27.94] | 0.210 [5.33] | 0.125 [3.18] |
| 5      | Only available in TJ  | 1.225 [31.12] | 0.210 [5.33] | 0.125 [3.18] |
| 8      | Only available in TJ  | 1.600 [40.64] | 0.210 [5.33] | 0.125 [3.18] |
| 00     | Only available in DS3 | 0.475 [12.07] | 0.077 [1.95] | 0.036 [0.92] |
| 04     | Only available in DS3 | 0.582 [14.78] | 0.113 [2.87] | 0.065 [1.65] |
| 10     | Only available in DS3 | 0.642 [16.31] | 0.173 [4.39] | 0.125 [3.18] |

| Options                                       | Description   |   |        |   |        |   |        |   |       |
|---|---|---|--------|---|--------|---|--------|---|-------|
| 2   | X39-TG-3G with WG39 wire grip sleeve                                      |   |        |   |        |   |        |   |       |
| 3   | 30 AWG Kynar insulated solid wire, pre-attached. Specify color and length |   |        |   |        |   |        |   |       |
| 8   | 28 AWG Kynar insulated solid wire, pre-attached. Specify color and length |   |        |   |        |   |        |   |       |
| Wire Colors Available for TC Termination Only |   |   |        |   |        |   |        |   |       |
| 0   | Black   | 2 | Red    | 4 | Yellow | 6 | Blue   | 8 | Gray  |
| 1   | Brown   | 3 | Orange | 5 | Green  | 7 | Violet | 9 | White |
| Wire Length Available for TC Termination      |   |   |        |   |        |   |        |   |       |
| Specify Length in inches: 03 – 72 [76-1829]   |   |   |        |   |        |   |        |   |       |
| (Blank) No option required                    |   |   |        |   |        |   |        |   |       |

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

