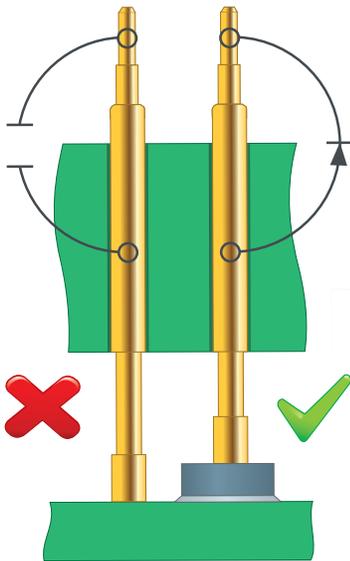


## SWITCH PROBE

A Switch Probe is a spring contact probe and receptacle that is used to verify the presence of components or connectors. The switch probe is normally open, and after a designated travel the switch probe closes. The most common use for switch probes is in the cable harness testing industry. The switch probe is used to verify the correct location of a terminal contact in a connector while also checking the retention force.

Switch probes also verify the physical presence of non-conductive components such as caps for connectors or devices on a circuit board. There are two separate current paths in a switch probe. From the plunger tip to the tail is normally open and closes only after the probe deflects to the designated travel. The second path, from the plunger tip to the outside of the receptacle, is always closed.

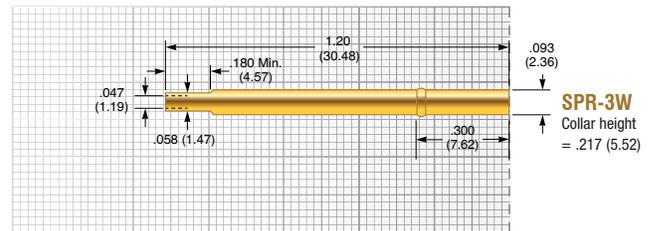
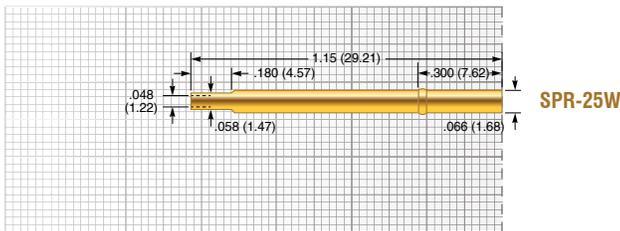
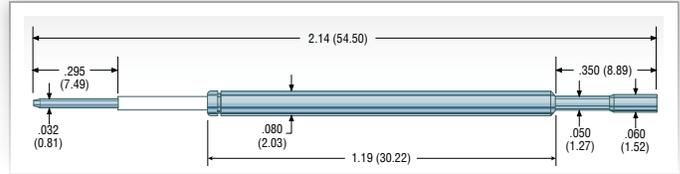
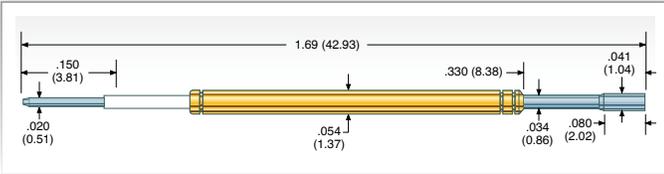


## MSP-25C

100 mil (2.54 mm)

## MSP-3C

125 mil (3.18 mm)



### Mechanical

|                        |                 |
|------------------------|-----------------|
| Recommended Travel:    | .085 (2.16)     |
| Full Travel:           | .125 (3.18)     |
| Switch Point (± .012): | .030 (0.76)     |
| Operating Temperature: | -55°C to +105°C |

### Spring Force in oz. (grams)

|                 | Switch Point | Rec. Travel |
|-----------------|--------------|-------------|
| <b>Standard</b> | 6.51 (185)   | 7.55 (212)  |

### Electrical (Static Conditions)

|                           |           |
|---------------------------|-----------|
| Current Rating:           | 3 amps    |
| Average Probe Resistance: | <50 mOhms |

### Materials and Finishes

|            |  |
|------------|--|
| Plunger:   | BeCu, Nickel plated  |
| Barrel:    | Work hardened Phosphor Bronze,<br>Gold plated over hard Nickel |
| Spring:    | Music Wire, Silver plated                                      |
| Insulator: | DELRIN™  |
| Terminal:  | BeCu, Silver plated  |

### Mechanical

|                        |                 |
|------------------------|-----------------|
| Recommended Travel:    | .085 (2.16)     |
| Full Travel:           | .140 (3.56)     |
| Switch Point (± .012): | .030 (0.76)     |
| Operating Temperature: | -55°C to +105°C |

### Spring Force in oz. (grams)

|                  | Order Code | Switch Point | Rec. Travel |
|------------------|------------|--------------|-------------|
| <b>Standard</b>  |            | 4.9 (138.9)  | 6.5 (184.3) |
| <b>Alternate</b> | - 1        | 23.3 (660.5) | 35.0 (992)  |

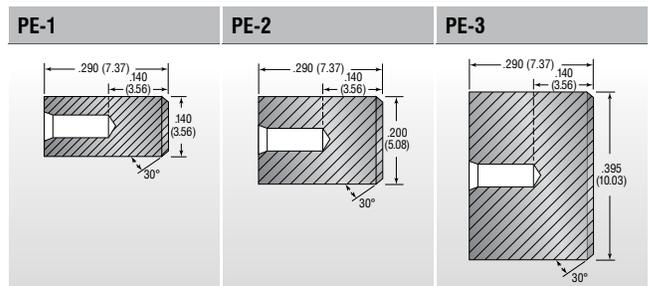
### Electrical (Static Conditions)

|                           |           |
|---------------------------|-----------|
| Current Rating:           | 3 amps    |
| Average Probe Resistance: | <50 mOhms |

### Materials and Finishes

|            |  |
|------------|--|
| Plunger:   | BeCu, Nickel plated                        |
| Barrel:    | Work-hardened Nickel Silver, Silver plated |
| Spring:    | Stainless Steel, Silver plated             |
| Insulator: | KEL-F™                                     |
| Terminal:  | BeCu, Silver plated                        |

### Caps for MSP-3C

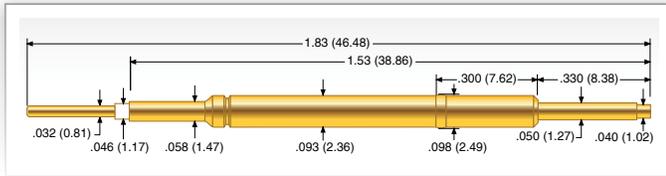


Dimensions in inches (millimeters). Specifications subject to change without notice. Consult factory for other temperature requirements, and applications below -40°C. Stocking Disclaimer: Stocking levels for part numbers listed in this catalog are subject to change. Availability is based on current levels of usage and demand.



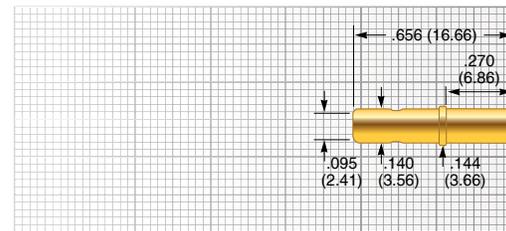
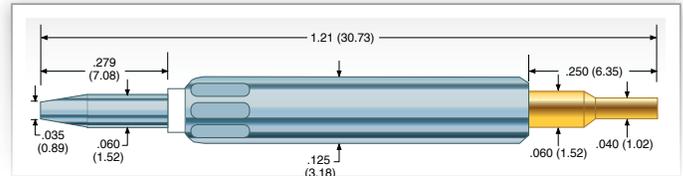
## SPL-03C-069

125 mil (3.18 mm)



## SSP-5C

187 mil (4.75 mm)



SSR-5Y

### Mechanical

|                        |                 |
|------------------------|-----------------|
| Recommended Travel:    | .167 (4.24)     |
| Full Travel:           | .330 (8.38)     |
| Switch Point (± .012): | .025 (0.64)     |
| Operating Temperature: | -55°C to +105°C |

### Spring Force in oz. (grams)

|          | Switch Point | Rec. Travel |
|----------|--------------|-------------|
| Standard | 3.2 (91)     | 1.85 (52)   |

### Electrical (Static Conditions)

|                           |           |
|---------------------------|-----------|
| Current Rating:           | 3 amps    |
| Average Probe Resistance: | <50 mOhms |

### Materials and Finishes

|            |                            |
|------------|----------------------------|
| Plunger:   | BeCu, Gold plated          |
| Barrel:    | Nickel Silver, Gold plated |
| Spring:    | Music Wire                 |
| Insulator: | DELRIN™                    |
| Terminal:  | BeCu, Gold plated          |

### Mechanical

|                        |                 |
|------------------------|-----------------|
| Recommended Travel:    | .100 (2.54)     |
| Full Travel:           | .150 (3.81)     |
| Switch Point (± .012): | .025 (0.64)     |
| Operating Temperature: | -55°C to +150°C |

### Spring Force in oz. (grams)

|          | Switch Point | Rec. Travel |
|----------|--------------|-------------|
| Standard | 2.36 (66)    | 4.5 (128)   |

### Electrical (Static Conditions)

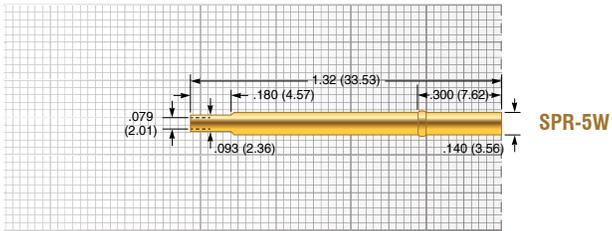
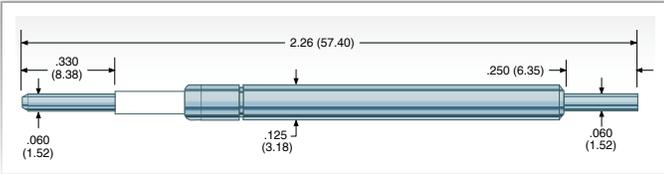
|                           |           |
|---------------------------|-----------|
| Current Rating:           | 5 amps    |
| Average Probe Resistance: | <50 mOhms |

### Materials and Finishes

|            |                              |
|------------|------------------------------|
| Plunger:   | BeCu, Gold plated            |
| Barrel:    | Nickel Silver, Silver plated |
| Spring:    | Spring Steel, Silver plated  |
| Insulator: | DELRIN™                      |
| Terminal:  | BeCu, Gold plated            |

## MSP-5C

187 mil (4.75 mm)



### Mechanical

|                              |                 |
|------------------------------|-----------------|
| Recommended Travel:          | .132 (3.35)     |
| Full Travel:                 | .185 (4.70)     |
| Switch Point ( $\pm .012$ ): | .025 (0.64)     |
| Operating Temperature:       | -55°C to +105°C |

### Spring Force in oz. (grams)

| Order Code    | Switch Point | Rec. Travel |
|---------------|--------------|-------------|
| Standard      | 2.5 (70)     | 5.2 (146)   |
| Alternate - 1 | 26.9 (755)   | 35.0 (992)  |

### Electrical (Static Conditions)

|                           |           |
|---------------------------|-----------|
| Current Rating:           | 5 amps    |
| Average Probe Resistance: | <20 mOhms |

### Materials and Finishes

|            |                                |
|------------|--------------------------------|
| Plunger:   | Brass, Nickel plated           |
| Barrel:    | Brass, Silver plated           |
| Spring:    | Stainless Steel, Silver plated |
| Insulator: | KEL-F™                         |
| Terminal:  | Brass, Silver plated           |