## **HPB-150 Button Probe**

Temperature Ranges A and E

## **Specifications**

#### **Temperature Ranges:**

**Temperature Range A** 

Low: 32° F [0° C] High: 302° F [150° C] **Temperature Range E** 

> Low: -100° F [-73° C] High: 400° F [205° C]

**Linear Range:** : 0.100 inches [2.54 millimeters] with a 5 foot [1.52 meters] long Capacitec L2 cable. For cables longer than 5ft consult factory.

Maximum Range: 0.150 inches [3.81millimeters]

#### Calibration:

- A 20 point archived calibration record of voltage output versus nominal displacement is provided standard with every probe.
- Several NIST traceable calibrations are available.

Material: Case, guard, and sensor are 303 stainless steel

**Driven Guard:** The guard element is driven with an electronic voltage of 2V to 20V peak to peak. Note, guard must not be grounded.

**Dip Coating:** "-D" epoxy dip coatings are optional to prevent accidental earth grounding or shorting of the elements.

#### **Mounting:**

- Capacitec HPB probes are intended to be mounted within a countersink.
- See mounting drawing on page 6 for details.

#### Cable:

- Coaxial Capacitec L2 or L3 cable is standard.
- Probe must be calibrated with the cable type and length selected.
- Cable must not be cut or spliced.

**Probe Thickness:** There is one standard thickness asela(ss a5o-6(s a)5.7an)5.7(dard t i)c(s)-2.ickneSeg drawin6 fo]

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## **HPB- 150 High Temperature Button Probe**

**Temperature Ranges V and S** 

## **Specifications**

Guard

## **Temperature Ranges:**

**Temperature Range V** 

Low: -100° F [-73° C] High: 1600° F [871° C]

**Temperature Range S** 

Low: -100° F [-73° C] High: 1832° F [1000° C]

**Linear Range:** 0.100 inches [2.54 millimeters] with a 5 foot [1.52 meters] long Capacitec T cable. For cables longer than 5ft consult factory.

Maximum Range: 0.150 inches [3.81millimeters]

#### Calibration:

- A 20 point archived calibration record of voltage output versus nominal displacement is provided standard with every probe.
- Several NIST traceable calibrations are available.

Material: Case, guard, and sensor are Inconel 600<sup>®</sup> (range V) or Haynes 230<sup>®</sup> (range S)

**Driven Guard:** The guard element is driven with an electronic voltage of 2V to 20V peak to peak. Note, guard must not be grounded.

## Mounting:

- Capacitec HPB probes are intended to be mounted within a countersink.
- See mounting drawing on page 7 for details.

### Cable:

- High temperature insulated Capacitec T type, is standard.
- Probe must be calibrated with the cable type and length selected.
- Cable must not be cut or spliced.

**Probe Lengths:** There is one standard thickness. See drawing for dimensions.

Cable

Sensor

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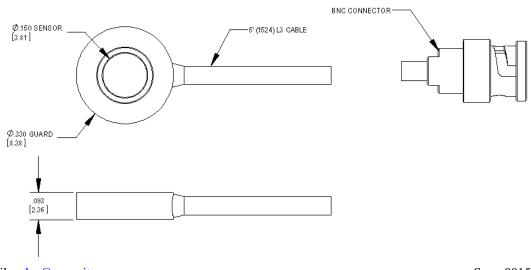
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# **HPB- 150 Button Probe Part Number Reference Guide**

|    | HPB – 150 )                           | <b>X</b> - )                | X -               | XX -                  | XX           | - X                                   |
|----|---------------------------------------|-----------------------------|-------------------|-----------------------|--------------|---------------------------------------|
|    | PRO<br>LENG                           |                             | RATING<br>ERATURE | CABLE TYPE            | CABLE LENGTH | CONNECTOR TYPE                        |
|    | A093"<br>(2.36)                       |                             | 302°F<br>150°C)   | L2093" coax<br>(2.36) | (1524)       | M – 10-32 Microdot<br>(Not compatible |
|    | 6-15000a 4501                         | Like Weißf bewax            | X-Office          |                       |              | Be about                              |
|    | (-73 to 205°C)                        | (1.50)                      |                   | 8 - 8N C              |              | (1.59)                                |
| p) | V - <sup>-</sup> 100 to 1600°F        | I2125" coax                 |                   | MCX – M               | CX           | C – (High Tem                         |
|    | (-73 to 371°C)                        | (3.18)                      |                   | (Not com              | •            | .125"                                 |
|    | C -100 to 1933°F                      | T High Town                 |                   | with I2 or            | N cable)     | (3.18)                                |
|    | S - ~100 to 1832°F<br>(-73 to 1000°C) | T – High Temp<br>.063" coax |                   |                       |              |                                       |
|    | (73 to 1000 c)                        | (1.60)                      |                   |                       |              |                                       |
|    |                                       | N – High Temp               |                   |                       |              |                                       |
|    |                                       | .140" coax                  | (DIME             | ENSIONS) IN MII       | LIMETERS     |                                       |
|    |                                       | (3.56)                      |                   |                       |              |                                       |

## EXAMPLE: HPB-150A-A-L3-5-B

#### HPB-150A A TEMPERATURE RANGE



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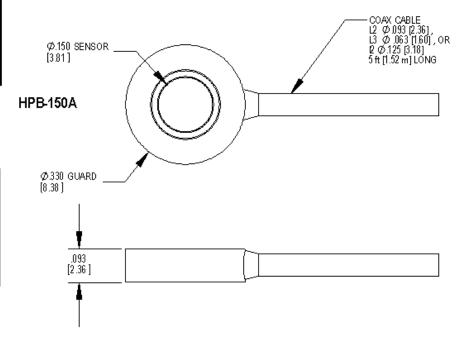
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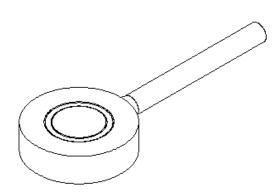
# ECapacitec HPB-150 Standard Button Probe Temperature Ranges A and E Length A

DIMENSIONS ARE NOMINAL VALUES

| CUSTOM THICKNESS OPTIONS |             |  |  |  |
|--------------------------|-------------|--|--|--|
| OPTION                   | THICKNESS   |  |  |  |
| В                        | .065 [1.65] |  |  |  |
| С                        | .125 [3.17] |  |  |  |

| TEMPERATURE RANGE |       |       |            |      |  |  |  |
|-------------------|-------|-------|------------|------|--|--|--|
| OPTION            | RANG  | E(°F) | RANGE (°C) |      |  |  |  |
| OFTION            | LOW   | HIGH  | LOW        | HIGH |  |  |  |
| Α                 | 32°   | 302°  | 0°         | 150° |  |  |  |
| Е                 | -100° | 400°  | -73°       | 205° |  |  |  |





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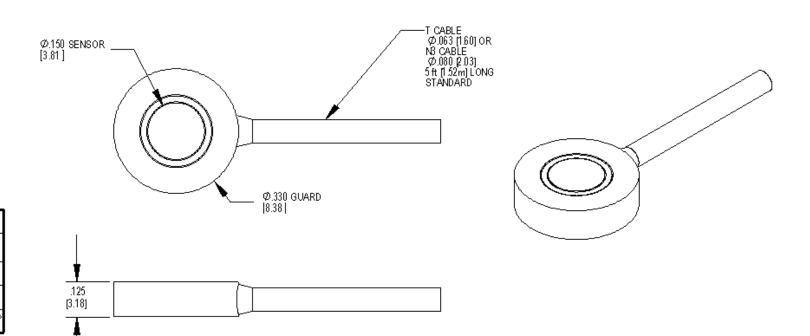
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## HPB-150 Standard High Temperature Button Probe

## Temperature Ranges V and S Thickness C

DIMENSIONS ARE NOMINAL VALUES



| TEMPERATURE RANGE |       |        |            |        |  |  |  |
|-------------------|-------|--------|------------|--------|--|--|--|
| OPTION            | RANG  | E (°F) | RANGE (°C) |        |  |  |  |
|                   | LOW   | HIGH   | LOW        | HIGH   |  |  |  |
| ٧                 | -100° | 1600°  | -73°       | 871 °  |  |  |  |
| S                 | -100° | 1832°  | -73°       | 1000 ° |  |  |  |

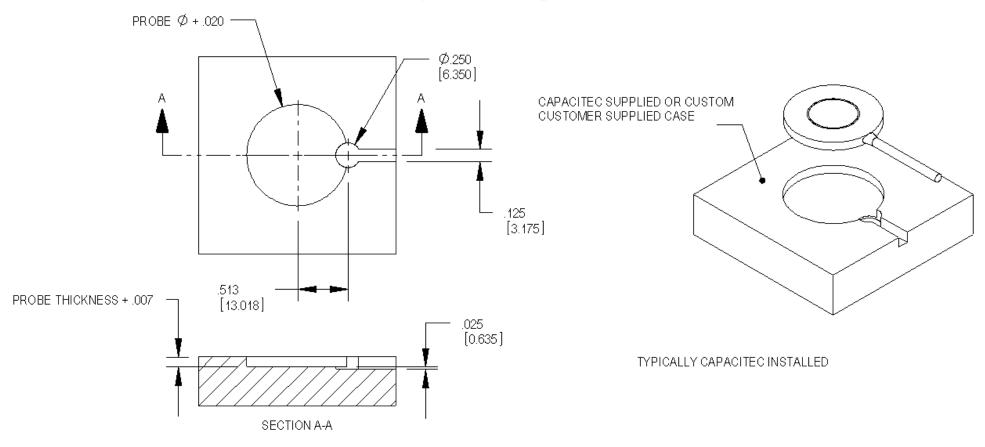
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## Standard Button Probe Install

Temperature Ranges A and E



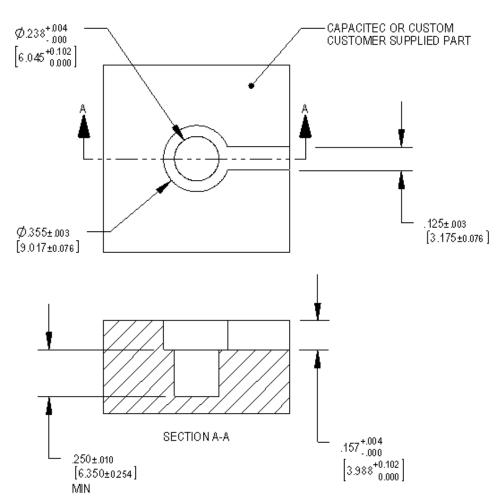
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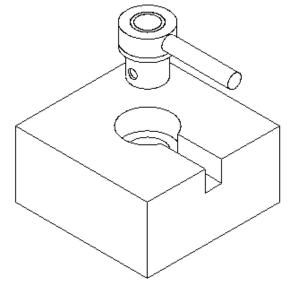
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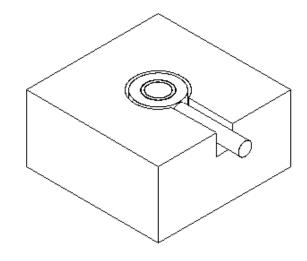
## Standard High Temperature Button Probe Install

Temperature Ranges V and S





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