

## Precision industrial PRTs

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- Vibration and shock resistant
- 19 mm (3/4-inch) bend radius for increased durability
- NVLAP-accredited calibration included, lab code 200706-0

When buying a PRT, performance isn't the only criterion you need to look at. The real issues are price-to-accuracy and price-to-durability ratios.

5627A probes have a temperature range up to 420 °C and an accuracy as good as  $\pm 0.025$  °C. They come in three different lengths. (Both six- and nine-inch models cover  $-200$  °C to 300 °C.) Each instrument is shipped with its ITS-90 coefficients and a calibration table in 1 °C increments.

One of the best features of this sensor is that it conforms to the standard 385 curve, letting you use your DIN/IEC RTD meters fully. Why use a probe that's less accurate than your meter?

The 5627A is manufactured using a coil suspension element design for increased shock and vibration resistance. It has a mineral-insulated sheath with a minimum bend radius of 19 mm (3/4-inch) for flexibility and durability. (Bend, if any, should be specified at time of order.)

Six- and nine-inch 5627As are calibrated at  $-196$  °C,  $-38$  °C, 0 °C, 200 °C, and 300 °C. For 12-inch versions the point at 300 °C is replaced by a calibration point at 420 °C.

Each probe is individually calibrated and includes a NVLAP-accredited report of calibration from the manufacturer, lab code 200706-0.

This probe is an excellent value. It has the price-to-accuracy and price-to-durability ratios you should demand in every PRT you buy!

### Ordering Information

**5627A-6-X** Secondary PRT, 152 mm x 4.7 mm (6 x 3/16 in),  $-200$  °C to 300 °C

**5627A-9-X** Secondary PRT, 229 mm x 4.7 mm (9 x 3/16 in),  $-200$  °C to 300 °C

**5627A-12-X** Secondary PRT, 305 mm x 6.35 mm (12 x 1/4 in),  $-200$  °C to 420 °C

**2601** Probe Carrying Case

*X = termination. Specify "A" (INFO-CON for 914X), "B" (bare wire), "D" (5-pin DIN for Tweener Thermometers), "G" (gold pins), "I" (INFO-CON for 1521 or 1522), "J" (banana plugs), "L" (mini spade lugs), "M" (mini banana plugs), "P" (INFO-CON for 1523 or 1524), or "S" (spade lugs).*

### Specifications

|  |   |
|--|---|
| <b>Resistance</b>                            | Nominal 100 $\Omega$  |
| <b>Temperature Coefficient</b>               | 0.00385 $\Omega/\Omega/$ °C nominal   |
| <b>Temperature Range</b>                     | $-200$ °C to 420 °C (5627A-6 and 5627A-9 to 300 °C; transition and cable temperature: 0 °C to 150 °C)   |
| <b>Drift Rate (k=2)</b>                      | $\pm 0.04$ °C at 0 °C after 100 hours at 420 °C   |
| <b>Sheath Material</b>                       | 316 Stainless Steel   |
| <b>Leads</b>                                 | Teflon™-insulated, nickel-plated stranded copper, 22 AWG  |
| <b>Termination</b>                           | Specify. See Ordering Information.  |
| <b>Time Constant</b>                         | Four seconds maximum for 63.2 % response to step change in water moving at 3 fps.   |
| <b>Bending Radius</b>                        | Sheath may be ordered with a bend on a minimum radius of 19 mm (3/4 in) except for 50 mm (2 in) area of sheath near tip. (Hart lab requires 20 cm [8 in] of unbent sheath to re-calibrate.)                           |
| <b>Calibration</b>                           | Includes manufacturer's NVLAP-accredited (lab code 200706-0) calibration and table with R vs. T values in 1 °C increments from $-196$ °C to 500 °C (to 300 °C for 5627A-6 and 5627A-9). ITS-90 coefficients included. |
| <b>Immersion</b>                             | At least 100 mm (4 in) recommended  |
| <b>Calibrated Accuracy<sup>1</sup> (k=2)</b> | $\pm 0.026$ °C at $-196$ °C<br>$\pm 0.046$ °C at 0 °C<br>$\pm 0.077$ °C at 200 °C<br>$\pm 0.124$ °C at 420 °C   |
| <b>Size</b>                                  | <b>5627A-12:</b> 305 mm x 6.35 mm (12 in x 1/4 in)<br><b>5627A-9:</b> 229 mm x 4.7 mm (9 in x 3/16 in)<br><b>5627A-6:</b> 152 mm x 4.7 mm (6 in x 3/16 in)  |

<sup>1</sup>Includes calibration uncertainty and 100 hr drift.

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