

# 5626, 5628 Secondary Standard PRTs

## Highlights

### High-temperature secondary standards

- Range to 661°C
- Meets all ITS-90 requirements for resistance ratios
- Rtp drift < 20 mK after 500 hours at 661°C
- Calibrated accuracy of  $\pm 0.006$  °C at 0 °C

Fluke Calibration's high-temp secondary standards fill the gap between affordable, but temperature-limited secondary PRTs (platinum resistance thermometers) and more expensive, highly accurate SPRTs (standard platinum resistance thermometers).

## Description

If you're using block calibrators, furnaces, or temperature points above normal PRT (platinum resistance thermometer) temperatures (420 °C), then these two PRTs are for you. The Fluke 5626 is nominally 100  $\Omega$  and the 5628 (formerly Hart Scientific) is nominally 25.5  $\Omega$ . Both instruments have a temperature range of -200 °C to 661 °C. They make great working or check standards for calibration work up to the aluminum point.

Using a regular PRT at temperatures above 500 °C exposes the platinum to contamination. If the PRT is used as a reference or calibration standard, contamination is a major problem. SPRTs (standard platinum resistance thermometers), which are more expensive and delicate, can handle the higher temperatures, but with greater risk to the instrument due to shock, contamination, or mishandling. The 5626 and 5628 are designed to reduce the contamination risk through the use of internal protection while not impairing performance.

In addition to the right measurement performance and durability, a PRT for secondary applications should be priced affordably. Fluke Calibration's new PRTs are inexpensive and come with an accredited calibration. The calibration comes complete with ITS-90 constants and a resistance-versus-temperature table.

Check the temperature range, check the stability, check the price! Who else gives you this much quality, performance, and value for your money? No one!

## Specifications

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<b>Temperature Range</b>	-200 °C to 661 °C
<b>Handle Temp.</b>	0 °C to 80 °C
<b>R<sub>TPW</sub></b>	<b>5626:</b> 100 Ω (± 1 Ω) <b>5628:</b> 25.5 Ω (± 0.5 Ω)
<b>Resistance Ratio W(Ga)</b>	$W(302.9146K) \geq 1.11807$ $\alpha \geq 0.003925$
<b>Calibrated Accuracy<sup>†</sup> (k=2)</b>	± 0.006 °C at -200 °C ± 0.006 °C at 0 °C ± 0.015 °C at 420 °C ± 0.022 °C at 661 °C
<b>Stability</b>	<b>5626:</b> ± 0.003 °C <b>5628:</b> ± 0.002 °C
<b>Long-Term Drift (k=2)</b>	<b>5626:</b> < 0.006 °C/100 hours at 661 °C <b>5628:</b> < 0.004 °C/100 hours at 661 °C
<b>Immersion</b>	At least 12.7 cm (5 in) recommended
<b>Sheath</b>	Inconel™ 600
<b>Lead Wires</b>	4-wire Super-Flex PVC, 22 AGW
<b>Termination</b>	Gold-plated spade lugs, or specify
<b>Size</b>	6.35 mm dia. x 305 mm, 381 mm, or 508 mm (0.25 x 12, 15, or 20 in) standard, custom lengths available
<b>Calibration</b>	Accredited calibrations from Fluke Calibration

<sup>†</sup>Includes calibration and 100 hr drift

## Models and Accessories

Model Name	Description
5626-12-X	<p>Secondary Standard PRT (0.25 in dia x 12 in), 100 <math>\Omega</math>, <math>-200</math> °C to 661 °C</p> <p>(17025 accredited calibration included. Traceable to NIST standards.)</p> <p>X = termination. Specify "A" (INFO-CON for 914X), "B" (bare wire), "D" (5-pin DIN for Tweener Thermometers), "G" (gold pins), "J" (banana plugs), "L" (mini spade lugs), "M" (mini banana plugs), "P" (INFO-CON for 1523 or 1524), or "S" (spade lugs).</p>
5626-15-X	<p>Secondary Standard PRT (0.25 in dia x 15 in), 100 <math>\Omega</math>, <math>-200</math> °C to 661 °C</p> <p>(17025 accredited calibration included. Traceable to NIST standards.)</p> <p>X = termination. Specify "A" (INFO-CON for 914X), "B" (bare wire), "D" (5-pin DIN for Tweener Thermometers), "G" (gold pins), "J" (banana plugs), "L" (mini spade lugs), "M" (mini banana plugs), "P" (INFO-CON for 1523 or 1524), or "S" (spade lugs).</p>
5626-20-X	<p>High-temp PRT, 100 <math>\Omega</math>, 508 mm (20 in) Includes case</p> <p>(17025 accredited calibration included. Traceable to NIST standards.)</p> <p>X = termination. Specify "A" (INFO-CON for 914X), "B" (bare wire), "D" (5-pin DIN for Tweener Thermometers), "G" (gold pins), "J" (banana plugs), "L" (mini spade lugs), "M" (mini banana plugs), "P" (INFO-CON for 1523 or 1524), or "S" (spade lugs).</p>
5628-12-X	<p>Secondary Standard PRT (0.25 in dia x 12 in), 25.5 <math>\Omega</math>, <math>-200</math> °C to 661 °C</p> <p>(17025 accredited calibration included. Traceable to NIST standards.)</p> <p>X = termination. Specify "A" (INFO-CON for 914X), "B" (bare wire), "D" (5-pin DIN for Tweener Thermometers), "G" (gold pins), "J" (banana plugs), "L" (mini spade lugs), "M" (mini banana plugs), "P" (INFO-CON for 1523 or 1524), or "S" (spade lugs).</p>
5628-15-X	<p>Secondary Standard PRT (0.25 in dia x 15 in), 25.5 <math>\Omega</math>, <math>-200</math> °C to 661 °C</p> <p>(17025 accredited calibration included. Traceable to NIST standards.)</p> <p>X = termination. Specify "A" (INFO-CON for 914X), "B" (bare wire), "D" (5-pin DIN for Tweener Thermometers), "G" (gold pins), "J" (banana plugs), "L" (mini spade lugs), "M" (mini banana plugs), "P" (INFO-CON for 1523 or 1524), or "S" (spade lugs).</p>
5628-20-X	<p>High-temp PRT, 25.5 <math>\Omega</math>, 508 mm (20 in) Includes case</p> <p>(17025 accredited calibration included. Traceable to NIST standards.)</p> <p>X = termination. Specify "A" (INFO-CON for 914X), "B" (bare wire), "D" (5-pin DIN for Tweener Thermometers), "G" (gold pins), "J" (banana plugs), "L" (mini spade lugs), "M" (mini banana plugs), "P" (INFO-CON for 1523 or 1524), or "S" (spade lugs).</p>

### Accessories common to all models:

Accessory	Description
<a href="#">2609</a>	Probe Carrying Case, Plastic (for probes 635 mm [25 in] in length)