

METAL-SHEATH SPRTs

Models 5680 and 5682

Primary Standards



Metal-Sheath SPRTs	Models 5680 and 5682
Inconel sheaths allow use in harsh environments	
Affordable true primary standard	
Meet all ITS-90 requirements from -200°C to 480°C	

Want a metal-sheathed SPRT? We've got a great one for you.

While the temperature range of metal-sheath SPRTs is narrower than that of quartz-sheath SPRTs, they're perfect for salt baths, baths that require metal blocks for increased stability (Hart baths don't need metal blocks), and dry-wells.

Even if you don't have a special use for them such as a salt bath, the price and

performance of these SPRTs allow you to use them in other situations that are inappropriate for quartz models.

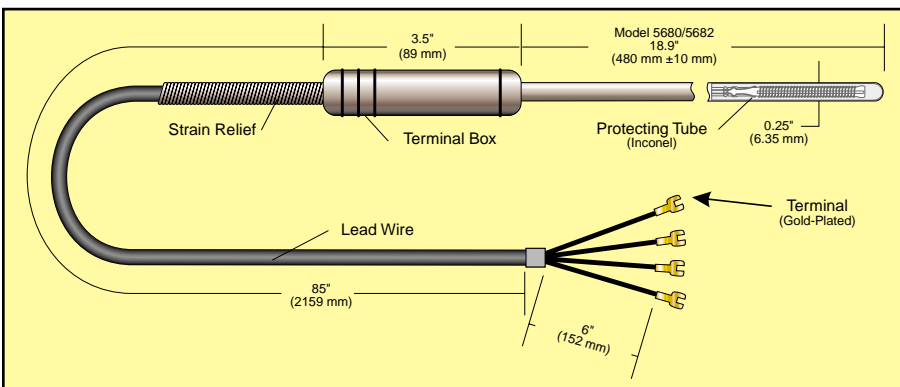
The metal element in the Model 5680 is high-purity platinum with a unique ceramic shield for high-temperature work. The quality construction of these SPRTs produces drift typically less than 0.005°C at 0°C after 100 hours at 480°C . This is excellent repeatability for an

SPRT in this price range. In fact, this isn't just excellent reproducibility, stability, and reliability—the performance of these SPRTs is so good that no other company in the business can match it for this price.

Hart offers a variety of calibration options, including fixed-point calibrations in our own lab. At Hart, we'll give it to you any way you want it!

Why use a lesser instrument when you can have the true performance of an SPRT for about the same investment? There's no reason to put off buying SPRT-quality measurement ability or having competent backup to your quartz-sheath sensors.

Specifications	
Temp. Range	-200°C to 480°C
Nominal R_{TPW}	5680: 25.5Ω ($\pm 0.5\Omega$) 5682: 100Ω ($\pm 1.0\Omega$)
Current	5680: 1 mA 5682: 0.5 or 1.0 mA
Resistance Ratio	$W(234.315\text{K}) \leq 0.844235$ $W(302.9146\text{K}) \geq 1.11807$
Sensitivity	5680: $0.1\Omega/^{\circ}\text{C}$ 5682: $0.4\Omega/^{\circ}\text{C}$
Drift Rate	$< 0.01^{\circ}\text{C}/100$ hours at 480°C (typically $< 0.005^{\circ}\text{C}$)
Repeatability	< 1 mK
Diameter of Pt Sensor Wire	5680: 0.003" (0.07 mm) 5682: 0.0016" (0.04 mm)
Protective Sheath	Inconel Diameter: 0.25" (6.35 mm) Length: 19.1" (485 mm)
Lead Wires	Four sensor wires plus grounding wire



Ordering Information

- 5680 25Ω Metal-Sheath SPRT
 - 5682 100Ω Metal-Sheath SPRT
- SPRT calibration prices are on page 15.



Read about our accreditation on page 3.