



FEATURES

- Temperature range: -200°C to 420°C
- Accuracy: <0.012°C
- Long term drift: <0.01°C
- Short term stability: <0.007°C
- Durable and shock resistant
- Temperature Coefficient 0.003925 Ω/Ω/°C
- W(Ga)≥1.11807
- Inconel™ sheath
- ISO/IEC 17025 accredited calibration included

MULTIPLE SIZE OPTIONS AVAILABLE

Model	Length	OD	Bended
1730-20	20in	0.25in	
1730-12	12in	0.25in	
1730-9	9in	0.187in	
1730-BEND	9.75in vertical x 4.5in horizontal	0.25in	✓
1730-12-30	12in	3mm	
1730-9-30	9in	3mm	

OVERVIEW

The AM1730 series of Secondary Reference PRTs offers affordable reference probes for precision temperature measurement and calibration both in the lab and in the field. These PRTs feature an accuracy of <0.012°C and a short term stability of <0.007°C. All AM1730 series PRTs include an ISO/IEC 17025 accredited calibration.

To reach the best performance in stability and repeatability, the sensing element has been specially designed to protect the platinum sensing wire from contamination at high temperatures. A unique supporting structure and filling material provide the best balance among the hysteresis effect, mechanical shock and thermal shock performance. This high performance probe fully meets the ITS-90 criteria for reference thermometers.

AM1730 Secondary Reference PRT



SPECIFICATIONS

Model	AM1730-20	AM1730-12	AM1730-9	AM1730-BEND	AM1730-12-30	AM1730-9-30
Temperature Range	-200°C to 420°C					
Nominal Resistance at 0°C	100 Ω					
Temperature Coefficient	0.003925 Ω/Ω/°C					
Calibration	ISO/IEC 17025 accredited calibration included					
Accuracy	<0.012°C at 0.01°C					
Long Term Drift at 0.01°C*	<0.01°C at TPW after 100 hours at 420°C					
Short Term Stability	<0.007°C					
Thermal Shock	<0.005°C after 10 thermal cycles from minimum to maximum temperatures					
Hysteresis	≤0.005°C					
Self-heating	50 mW/°C					
Response Time**	9 seconds	9 seconds	6 seconds	9 seconds	4 seconds	4 seconds
Measurement Current	0.5 mA or 1 mA					
Sensor Length	32 mm					
Sensor Location	3 mm from tip					
Insulation Resistance	>1000 MΩ at room temperature					
Sheath Material	Inconel™					
Sheath Dimensions	0.25in (OD) x 20in (L)	0.25in (OD) x 12in (L)	0.187in (OD) x 9in (L)	0.25in (OD) x 9.75in vertical x 4.5in horizontal	3mm (OD) x 12in (L)	3mm (OD) x 9in (L)
External Leads	Teflon™ insulated copper wire, 4 leads, 2 meters					
Handle Dimensions	15mm (OD) x 65mm (L)	15mm (OD) x 65mm (L)	10mm (OD) x 50mm (L)	15mm (OD) x 65mm (L)	10mm (OD) x 50mm (L)	10mm (OD) x 50mm (L)
Handle Temperature Range	-30°C to 100°C					

*Long-term drift rate is for reference only. It could be affected by such facts as handling, application, and maintenance, etc.

**for 63% response to step change in water moving at 3 feet per second

AM1730 Secondary Reference PRT



ACCESSORY OPTIONS

Model	Description
9001	Wooden carrying case for 12" or 9" probes
9002	Wooden carrying case for 20" probe

STANDARD ORDERING OPTIONS (All Include ISO/IEC 17025 accredited calibration)

AM1730-20 20" Secondary Reference PRT, bare wire terminations

AM1730-12 12" Secondary Reference PRT, bare wire terminations

AM1730-12-30 12" Secondary Reference PRT, 3mm OD, bare wire terminations

AM1730-9 9" Secondary Reference PRT, bare wire terminations

AM1730-9-30 9" Secondary Reference PRT, 3mm OD, bare wire terminations

AM1730-BEND Bended Secondary Reference PRT, bare wire terminations

See **CUSTOM ORDERING OPTIONS** on next page

CUSTOM ORDERING OPTIONS (All Include ISO/IEC 17025 accredited calibration)

AM1730-20-	ADT	ADT LEMO connector	20" Secondary Reference PRT
	BJ	Banana plugs	
	SP	Gold-plated spade lugs	
	PIN	5-PIN connector (for AM8010 readout)	
	X	any other customizations	
AM1730-12-	ADT	ADT LEMO connector	12" Secondary Reference PRT
	BJ	Banana plugs	
	SP	Gold-plated spade lugs	
	PIN	5-PIN connector (for AM8010 readout)	
	X	any other customizations	
AM1730-12-30-	ADT	ADT LEMO connector	12" Secondary Reference PRT, 3mm OD
	BJ	Banana plugs	
	SP	Gold-plated spade lugs	
	PIN	5-PIN connector (for AM8010 readout)	
	X	any other customizations	
AM1730-9-	ADT	ADT LEMO connector	9" Secondary Reference PRT
	BJ	Banana plugs	
	SP	Gold-plated spade lugs	
	PIN	5-PIN connector (for AM8010 readout)	
	X	any other customizations	
AM1730-9-30-	ADT	ADT LEMO connector	9" Secondary Reference PRT, 3mm OD
	BJ	Banana plugs	
	SP	Gold-plated spade lugs	
	PIN	5-PIN connector (for AM8010 readout)	
	X	any other customizations	
AM1730-BEND-	ADT	ADT LEMO connector	Bended Secondary Reference PRT
	BJ	Banana plugs	
	SP	Gold-plated spade lugs	
	PIN	5-PIN connector (for AM8010 readout)	
	X	any other customizations	

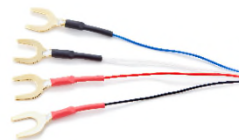
Bare Wire (default)



ADT LEMO connector



Gold-plated spade lugs



5-PIN connector
(for AM8010 readout)

