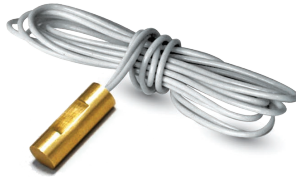# PIPE MOUNT
Small Pipe/Coil Sensor, Platinum RTD

The ACI Platinum Pipe Mount Series features a 1.1" long Brass sensing element with a slight curvature on the bottom that is designed to increase the surface area and improve thermal conductivity between the pipe and sensor. Each sensor has two, 24 inch, 22 AWG Etched Teflon colored lead wires to differentiate the different sensor types. The three-wire "-3W" option should be ordered if using with a 3-Wire temperature transmitter or sensor configuration on your building management system or PLC (Programmable Logic Controller). The purpose of the 3rd wire is to compensate for any external lead wire resistance that will affect the sensor output. ACI recommends the use of 18 AWG lead wires to reduce the external lead wire resistance when using a Platinum RTD sensor. The sensors are manufactured using ACI's proven double encapsulation process to eliminate the effects of moisture upon the sensors and to improve the thermal response times with our high quality, thermally conductive epoxy. The Pipe Mount sensor should be used on pipe or coil sizes from 1/2" to 1" in diameter. A 7.5" nylon wire tie is supplied for fastening the sensor to the top of the pipe. For best accuracy and increased conduction between the pipe and the sensor, we recommend that you clean the pipe before applying thermal grease between the mating surfaces and then to insulate the sensor from the external effects of the ambient air. An optional plenum rated cable and NIST Certificate can be ordered as referenced in the ordering grid.

Applications: Cooling Coils, Heating Coils, Hot Water Systems, Chilled Water Systems, Hydronic Heating Systems, Chillers

The ACI Platinum Pipe Mount Series is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, www.workaci.com.
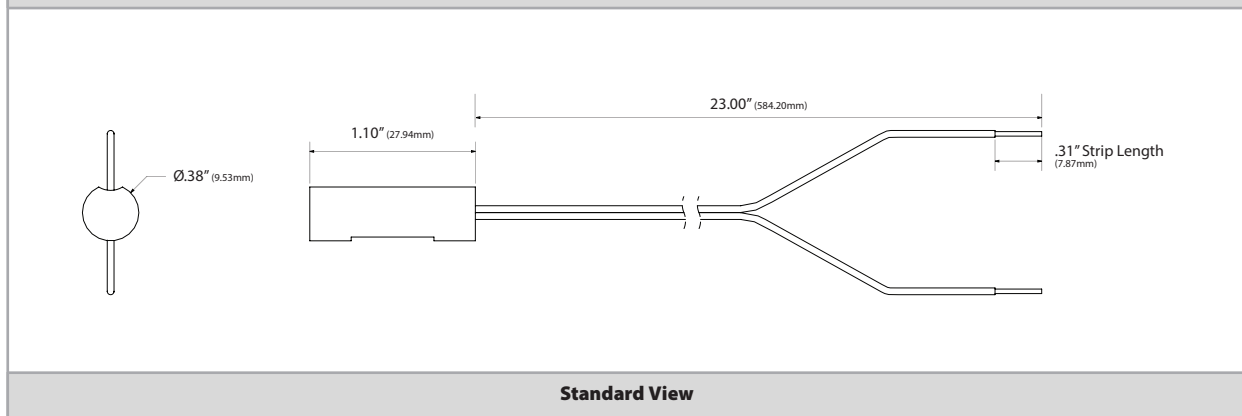
PRODUCT SPECIFICATIONS

Sensor Type | Sensor Curve:	Platinum RTD | PTC (Positive Temperature Coefficient)
Number Sensing Points:	One
Number Wires:	**A/100-2W-PM Series and A/1K-2W-PM Series:** Two (Non-Polarity Sensitive)
	A/100-3W-PM Series and A/1K-3W-PM Series: Three (Polarity Sensitive)
Sensor Output @ 0ºC (32ºF):	**A/100-xW-PM Series**: 100 Ohms nominal | **A/1K-xW-PM Series:** 1000 Ohms nominal
Sensor Accuracy @ 0ºC (32ºF):	+/- 0.06% Class A (**Tolerance Formula:** +/- ºC = (0.15ºC + (0.002 * |t|))
	where |t| is the absolute value of Temperature above or below 0ºC in ºC)
	-40ºC (-40ºF): +/- 0.23ºC (+/- 0.414ºF) | **0ºC (32ºF):** +/- 0.15ºC (+/- 0.27ºF)
	200ºC (392ºF): +/- 0.55ºC (+/- 0.99ºF)
Din Standard | Temperature Coefficient:	DIN EN 60751 (IEC 751) | 3850 ppm / ºC
Sensor Stability:	+/- 0.03% after 1000 Hours @ 300ºC (572ºF)
Response Time (63% Step Change):	8 Seconds nominal
Self-Heating | Maximum Operating Current:	**100 Ohm RTD:** 7 mW/ºC (Still Air) | 5 mA | **1K Ohm RTD:** 4mW/ºC (Still Air) | 3 mA
Pipe Mount Sensor Enclosure Material:	Brass
Pipe Sizes Accepted:	½" (12.7mm) to 1" (25.4mm)
Operating | Storage Temperature Range:	-40 to 200ºC (-40 to 392ºF) | -40 to 85ºC (-40 to 185ºF)
Operating Humidity Range:	10 to 95% RH condensing
Lead Length | Conductor Size:	24" (61cm) | 22 AWG (0.65mm)
Lead Wire Insulation | Wire Rating:	Etched Teflon (PTFE) Colored Leads | MIL-W-16878/4 (Type E)
Conductor Material:	Silver Plated Copper
Product Dimensions (Length x Diameter):	1.10" (27.9mm) x 0.375" (9.53mm)
Product Weight:	0.06 lbs. (27.22g)
Agency Approvals:	CE, RoHS2, WEEE

RoHS COMPLIANT 2002/95/EC

DIMENSIONAL DRAWING

23.00" (584.20mm)

1.10" (27.94mm)

.31" Strip Length (7.87mm)

Ø.38" (9.53mm)

Standard View

STANDARD ORDERING

Model # Example: A/100-2W-PM -OR- 138646

Model #	Item #	Description
A/100-2W-PM	138646	100 Ohm Platinum, 2-Wire, Pipe Mount, 24" Brown/Brown Leads
A/100-3W-PM	142484	100 Ohm Platinum, 3-Wire, Pipe Mount, 24" Brown/Brown/Black Leads
A/1K-2W-PM	138643	1K Ohm Platinum, 2-Wire, Pipe Mount, 24" Black/Black Leads
A/1K-3W-PM	142483	1K Ohm Platinum, 3-Wire, Pipe Mount, 24" Black/Black/White Leads

OPTIONAL SENSOR ORDERING

Model # Example:

A/	1K	2W	PM	20'		NIST
A.	B.	C.	D.	E.	F.	G.

		MODEL #
A. Sensor Series *No Selection Required*	A/	A/
B. Model Series *Select One (1)*	**100** = 100 Ohm Platinum RTD │ **1K** = 1K Ohm Platinum RTD	
C. Number of Wires *Select One (1)*	**2W** = Two Wires │ **3W** = Three Wires	
D. Configuration *No Selection Required*	**PM** = 1.1" Brass Pipe Mount Sensor	PM
E. Lead Length *Select One (1)*	**----** = Standard (24" Etched Teflon) │ **10'** = 10 Feet (3.05m) │ **20'** = 20 Feet* (6.10m)	
F. Lead Wire Type *Select One (1)*	**----** = Standard (24" Teflon Colored Leads) │ **CL2P** = Plenum Rated Cable	
G. NIST *Select One (1)*	**----** = No NIST Certificate │ **NIST** = NIST Certificate (3 Points)	

Note*: The 20' Length is not CE Compliant but it is RoHS Compliant

ACCESSORIES ORDERING

Model # Example: HARDWARE, 2" HOSE CLAMP -OR- 100235

Model #	Item #	Description
HARDWARE, 2" HOSE CLAMP	100235	Hardware, 2" Hose Clamp, Quick Release Worm Gear, 201/301 Stainless Steel
NSG HEAT TRANSFER PASTE 2OZ	102595	Thermal Grease, 2 oz. Tube, Silicone Free, -40 to 320ºF (-40 to 160ºC)
NSG HEAT TRANSFER PASTE 16OZ	140574	Thermal Grease, 16 oz. Jar, Silicone Free, -40 to 390ºF (-40 to 198ºC)