



Remote Data Collection

The new USB/Ethernet interface allows the logger to be used in a variety of situations: USB-only, USB-powered with Ethernet data, and Ethernet data with Power-over-Ethernet (PoE). Using the Ethernet interface, the PT-104A can be located anywhere on a LAN or on the internet.

Power over Ethernet (PoE)

The PT-104A can obtain its power from the Ethernet port as a Powered Device (PD) according to the PoE standard. To use this feature, you must connect the unit to Power Sourcing Equipment (PSE) such as a network switch, router or power injector that also supports the PoE standard. Any standard Ethernet cable up to 100 m (about 328') in length can be used.

Software

The PT-104A is supplied with Windows Logging and Player Software. The software will automatically detect which sensor is connected and will display readings in the correct units. Also supplied is a software development kit (SDK). The SDK contains a range of software drivers and example code that you can use to write your own software or to use your PT-104A data logger with third party software. With the included Logging Software you can set the sampling interval from 1 second to several hours and set the maximum number of readings. You can also tell the PT-104A data acquisition module what do to when the temperature

readings have been taken—either: stop; repeat immediately (start again); scroll (oldest recordings disappear); or repeat after delay (where the delay is set by the user)

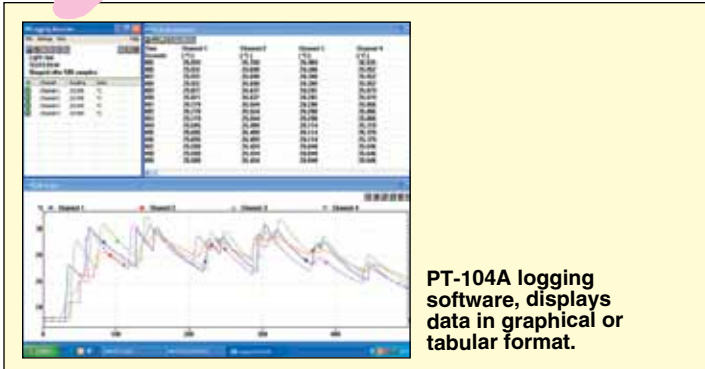
Multiple PT-104A modules can be used simultaneously with the logging software. Also, PT-104A modules can be mixed with TC-08 thermocouple input modules and used at the same time. Up to 20 units of any kind (PT-104A or TC-08) can be connected.

Using the PT-104A logging software, data can be viewed in a spreadsheet and/or in a graph as it is being recorded. Data collected from previous recordings can also be viewed using the Player.

Specifications

PT-104A Platinum Resistance Data Logger			
Temperature	Resistance	Voltage	
Sensor	Pt100 ¹ , Pt1000	N/A	N/A
Range	-200 to 800°C (-328 to 1472°F)	0 to 375 Ω ¹ 0 to 10 kΩ	0 to 115 mV 0 to 2.5V ¹
Linearity	20 ppm	20 ppm	20 ppm
Accuracy @ 25°C	0.01°C ¹	20 ppm ¹	0.2% ¹
Temperature Coefficient	5 ppm/°C	5 ppm/°C	100 ppm/°C
RMS Noise (Using Filter)	0.01°C	10 ppm	10 ppm
Resolution	0.001°C	1 μΩ	0.156 μV
Conversion Time Per Channel		720 mS	
Number of Inputs		4	
Connectors		4-pin mini DIN	
Input Impedance		>>1 MΩ	
Overvoltage Protection		±30V	
Power	Powered by USB or Ethernet: USB 1.1: 5V ±10% @ <100 mA USB 2.0: 5V ±10% @ <200 mA Ethernet: 48V ±20% @ <40 mA (<2W)		
Environmental	20 to 30°C (68 to 86°F) for stated accuracy, 0 to 70°C (32 to 158°F) operating, 20 to 90% RH		
Software	Logging Software for 32-bit or 64-bit editions of Windows XP (SP2 or greater), Vista, 7. Software Development Kit containing drivers and example code for C, C++, Excel and LabView.		
Ethernet Port	Conforms to IEEE 802.3 10Base-T. Compatible with 10/100/1000Base-T networks. Conforms to IEEE 802.3af Power-over-Ethernet (PoE)		
USB Port	Conforms to USB 2.0 full-speed (12 Mbps)		
Computer Interface	USB or Ethernet		
Dimensions	36 H x 135 W x 184 mm D (1.42 x 5.31 x 7.24")		
Weight	500 g (1.1 lb)		

¹Quoted accuracy is for options marked



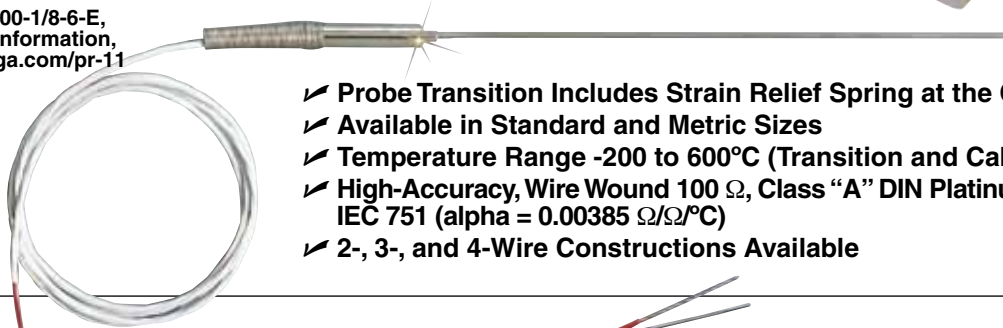
PT-104A logging software, displays data in graphical or tabular format.



PT-104A, shown smaller than actual size.

Compatible RTD Probes

PR-11-2-100-1/8-6-E,
for more information,
visit omega.com/pr-11



- ✓ Probe Transition Includes Strain Relief Spring at the Cable Exit
- ✓ Available in Standard and Metric Sizes
- ✓ Temperature Range -200 to 600°C (Transition and Cable to 260°C Max)
- ✓ High-Accuracy, Wire Wound 100 Ω, Class "A" DIN Platinum Elements per IEC 751 (alpha = 0.00385 Ω/Ω/°C)
- ✓ 2-, 3-, and 4-Wire Constructions Available

RTD-2-F3105-36-T,
for more information,
visit omega.com/rtd-2-f3105



- ✓ Thermal Response (63%) Less Than 75 Milliseconds in Water Flowing at 3 Feet per Second
- ✓ High-Accuracy Class "A", 100 Ω DIN Platinum Elements Standard
- ✓ Ultra Precise Accuracy 1/3 and 1/10 DIN, and Economical Class "B" Also Available
- ✓ Operating Range Up to 480°C (900°F) Available
- ✓ 1 m (40") Long 2-, 3-, or 4-Wire #26 AWG Cables for Connecting to Most Handheld Instruments

SA1-RTD, for
more information,
visit omega.com/sa1-rtd



- ✓ 100 Ω DIN Class A (±0.06 Ω or ±0.15°C at 0°C) Accuracy Standard
- ✓ Easy-Installation Silicone-Based, Self-Adhesive Backing Rated to 260°C (500°F)
- ✓ Sensor Can be Re-Applied
- ✓ 290°C (554°F) Short-Term Operation When Used as a "Cement-On" (OMEGABOND® Air Set Cements)
- ✓ Stripped 3-Wire or 4-Wire Leads Standard (Connectors Optional)
- ✓ Stocked in 1 m (40") Lengths; Also Available in 2 and 3 m (80 and 120") and Custom Length Lead Wires
- ✓ Other Resistances/Accuracies Available on Request

To Order Visit omega.com/pt-104a for Pricing and Details

Model No.	Description
PT-104A	4-channel RTD input data acquisition module

Comes complete with USB cable, ethernet patch cable, 4 mating mini DIN screw terminal connectors, quick start guide, Windows software and complete operator's manual on CD.

Ordering Example: PT-104A, 4-channel RTD input data acquisition module.