

USB-RTD300-CAL-SC

Product Description

RTD300: 2/3 Wire RTD sensor to USB adapter with connector – calibratable – with 1/3 DIN PT100 probe – pre-calibrated and certified in 3 points at 18, 27 and 36°C

The RTD300 is an interface for temperature measurements using most of 2- or 3-wire 100 ohms RTDs, such as the popular Pt100 probes. Built around a 24-bit data converter combining cutting-edge technologies, the RTD300 brings unmatched precision and resolution to your temperature values, with an improved sample speed. Furthermore, the RTD300 compensates the measured value of errors introduced by the length of a 3-wire probe cable, up to 100 feet, and drastically reduces electronic noise, thanks to its sophisticated built-in digital filters. Sensors connect using a convenient and industry standard mini RTD 3-pin connector. Its compact USB-key form factor simplifies integration even in space-constrained applications.

Specifications

- Temperature range: -200°C to 800°C^[2]
- ADC resolution: 24-bit
- Accuracy (Typical): $\pm 0.005^{\circ}\text{C}$
- Accuracy (From 0°C to 50°C): +0°C, -0.018°C^[3]
- Noise level: $\pm 0.0015^{\circ}\text{C}$
- Sampling rate: 10 SPS (100ms)
- Response time ($t_{63\%}$): Fast, probe dependent
- Built-in noise filter
- Temperature compensated
- Factory calibrated
- Sensing Element Type: 2 or 3 wire RTD 100 Ω sensors (Pt100 type)
- Connection: Polarized 3-pin standard^[1] miniature receptacle

Miscellaneous

- Enclosure operating temperature: -20°C to 70°C
- Enclosure: ABS Plastic, USB-key form factor
- Communication: USB 2.0

Available channels

(As displayed in our logging software *DracalView*)

Channel Id*	Description	Type	Nature
00	3-Wire PT100 Temperature sensor	Temperature	Real

* Channel Id as it appears in DracalView. Virtual channels Id differs in DracalView and dracal-usb-get.

Free data logging software

- Real-time on-screen graphing and logging
- Supported by our DracalView data logger software and tools
- Operates under **Windows** (XP, Win7/8/10 64&32-bit), **Mac OS X** and **Linux**
- Configurable log file format with log interval down to 1 second
- Configurable units (°C, °F, K...)
- Simultaneous use of an unlimited ^[2] Dracal sensors supported
- Command-line tool [dracal-usb-get](#) also available (packaged with DracalView)
- Use it in your own application easily! We provide [code samples](#) for many programming languages
- Usable with LabView^[†] ([Guide here](#))
- And much more! Visit our [DracalView data logger](#) WEB page for more information

[Dracal RTD300 Datasheet](#)