

## PRODUCT DATA SHEET

# RTD-Link-200: Wireless 6-Channel RTD Node

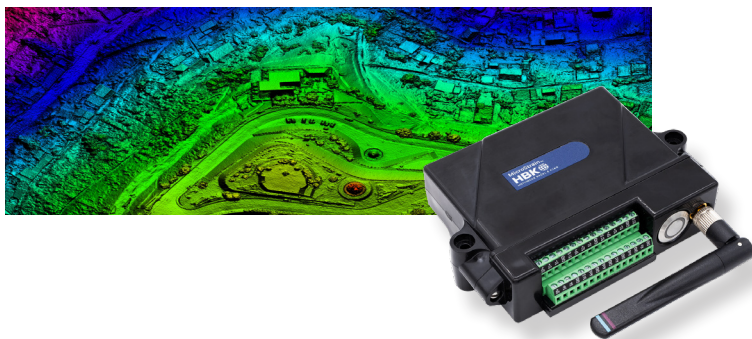
The RTD-Link-200 is a 6-channel wireless sensor used for precise measurement of RTDs and thermistors. No calibration is required. Select the sensor type and the node will output accurate, low noise temperature or resistance data.

Wireless sensing eliminates the time and complexity of running long wires. Additionally, the RTD-Link-200's high channel count reduces the total cost per channel over many hard-wired DAQs.

The MicroStrain wireless sensor networks are fast to deploy and provide reliable, lossless data collection. SensorConnect software can be used for device configuration, live data monitoring, and data analysis. SensorCloud is Lord's optional cloud-based platform that optimizes data aggregation, analysis, and alerts for sensor data collected from remote networks.

## HIGH PERFORMANCE SENSING

- 6 RTD or thermistor input channels
- On-board linearization algorithms
- On-board temperature sensor
- Digital filtering for up to 120 dB rejection of 50 and 60 Hz noise
- 2, 3, or 4 wire RTD compatibility



## RELIABLE DATA COLLECTION

- Lossless, synchronized, and scalable networks using LXRS and LXRS+ protocol
- Remotely configure nodes and view sensor data using SensorConnect (PC), SensorCloud (web), or MSCL (API library)
- Low battery detection

## CONFIGURE FOR MANY APPLICATIONS

- Report temperature or mV
- Up to 64 Hz sampling
- Continuous or event-triggered operation
- Transmit data real-time and/or save to onboard memory

## RUGGED

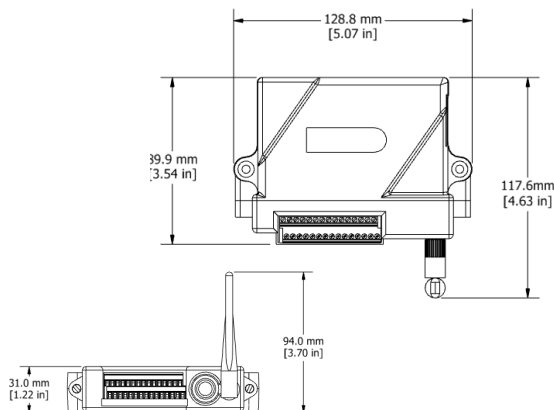
- Polycarbonate enclosure
- Bolt-down or DIN rail mounting
- -40 to +85°C operating temperature
- 4kV ESD protection

## APPLICATIONS

- Thermal profiling
- Refrigeration monitoring
- Production process monitoring
- Quality control
- Environmental monitoring
- Condition Based Monitoring (CBM)

## MICROSTRAIN RTD-LINK-200 SPECIFICATIONS

General	
<b>Sensor input channels</b>	RTD or thermistor, 6 channels
<b>Integrated sensors</b>	Temperature, 1 channel
<b>Digital filter</b>	Adjustable low pass filter with up to 120 db 50/60 Hz rejection
<b>Resolution</b>	24 bit
RTD Input	
<b>Measurement range</b>	-200°C to 850°C
<b>Accuracy</b>	±0.1°C (typical) using PT-100 and 4 wire configuration
<b>Noise</b>	Less than 0.05°C (typical) using PT-100 and default 12 Hz LPF
<b>Compatible types</b>	PT-10, PT-50, PT-100, PT-200, PT-500, PT-1000
Integrated Temperature Channel	
<b>Accuracy</b>	±0.13°C (20°C to 70°C), ±0.25°C (-40°C to 85°C)
<b>Resolution</b>	0.02°C
Sampling	
<b>Sampling modes</b>	Continuous and event triggered
<b>Output options</b>	Temperature, resistance or custom
<b>Sampling rates</b>	1 S/hr to 64 SPS (1 channel), 1 S/hr to 32 SPS (6 channel)
<b>Network capacity</b>	Up to 128 nodes per RF channel (bandwidth calculator) <a href="http://www.microstrain.com/configure-your-system">http://www.microstrain.com/configure-your-system</a>
<b>Node synchronization</b>	±50 µsec
<b>Data storage capacity</b>	16 MB (up to 4,000,000 data points)



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Thermistor Input	
<b>Measurement range</b>	-40°C to 150°C (Thermistor type dependent)
<b>Accuracy</b>	±1°C (Typical)
<b>Noise</b>	+/- 0.001°C typical using default 12Hz filter
<b>Compatible types</b>	44004, 44033, 44005, 44030, 44006, 44031, 44007, 44034, 44008, 44032, YSI-400
Operating Parameters	
<b>Battery power</b>	4 AA batteries in series. Total voltage between 3.4 V and 36 V
<b>Battery lifetime</b>	<a href="https://www.microstrain.com/wireless/rtd-link-200">https://www.microstrain.com/wireless/rtd-link-200</a> for details
<b>External power</b>	4 V to 36 V DC
<b>Wireless communication range</b>	Outdoor/line-of-sight: 2 km (ideal), 800 m (typical) Onboard antenna: 1 km (ideal), 400 (typical) Indoor/obstructions: 50 m (typical)
<b>Radio frequency (RF) transceiver carrier</b>	License-free 2.405 to 2.480 GHz (16 channels)
<b>RF transmit power</b>	User-settable 0 dBm to 20 dBm (restricted regionally)
<b>Operating temperature</b>	-40°C to +85°C
<b>Angular acceleration limit</b>	4 kV
<b>ESD</b>	250g/1.5ms with batteries installed 500g/1.5ms without batteries installed (external power source)
Physical Specifications	
<b>Dimensions</b>	129 mm x 117.6 mm x 31 mm (including antenna)
<b>Interface</b>	Screw-down terminal
<b>Weight</b>	283 grams (with batteries), 217 grams (without batteries)
Integration	
<b>Compatible gateways</b>	All WSDA gateways
<b>Software</b>	SensorCloud, SensorConnect, Windows 7, 8 & 10 compatible
<b>Software development kit</b>	<a href="http://www.microstrain.com/software/mscl">http://www.microstrain.com/software/mscl</a>
<b>Regulatory compliance</b>	FCC (USA), IC (Canada), CE, RoHS (EU), MIC (Japan)