

575 Series

Predictive Maintenance Sensors

SENSORS

D-201-0004-01 (B), DS, 575 Series



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Reduce Downtime



Reduce Maintenance Cost



Increased Productivity

Comprehensive Condition Based monitoring system solution for industrial equipment, utilizing multiple sensor add-ons, Machine Learning (ML) algorithms, and secure data transmission.

- Real Time Data from Multiple Sensor Nodes
- Predictive Maintenance Window
- Detection of Abnormal Conditions or Faults
- Reduction of Unplanned Downtime

Food



Shipping



Automotive



Pharmaceutical



Industrial





Sensor(s)
Add-ons

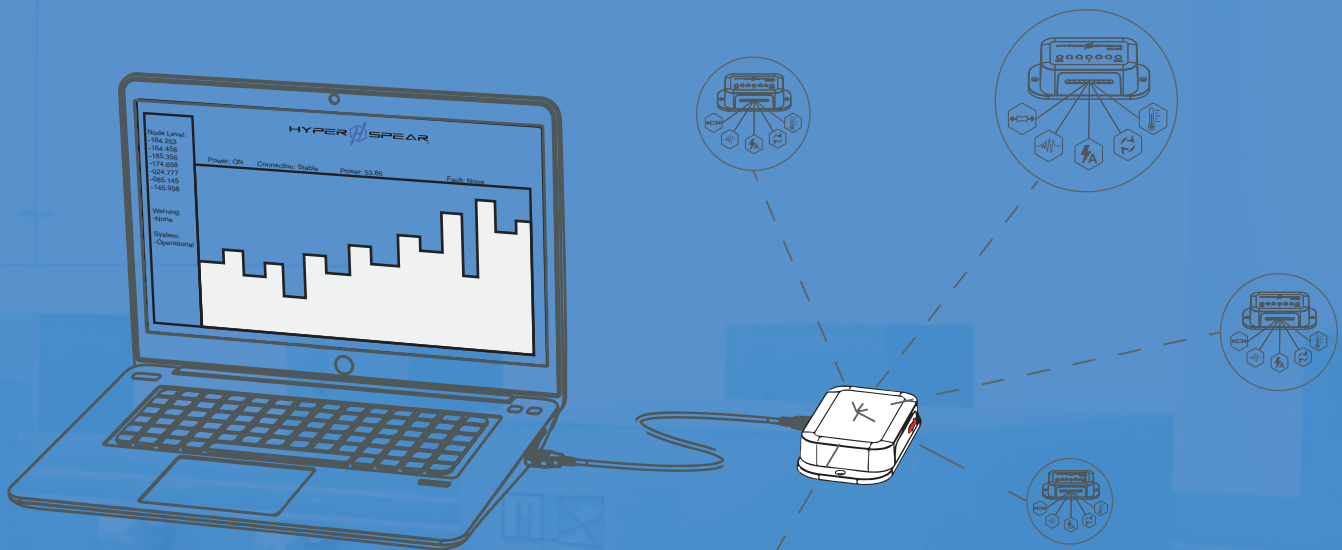
Control Node
[CTL-575]

Base Station
[Rx-575]

Computer /
Server

Real time condition based monitoring.

Monitor multiple control nodes, via encrypted closed loop wireless and/or wired communication. Mix and match sensors add-ons to each control node to meet specific needs.



Sensor Add-ons



Belt Tension



Belt Tracking



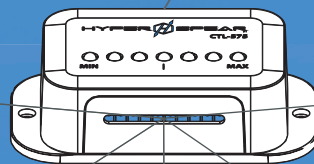
Current

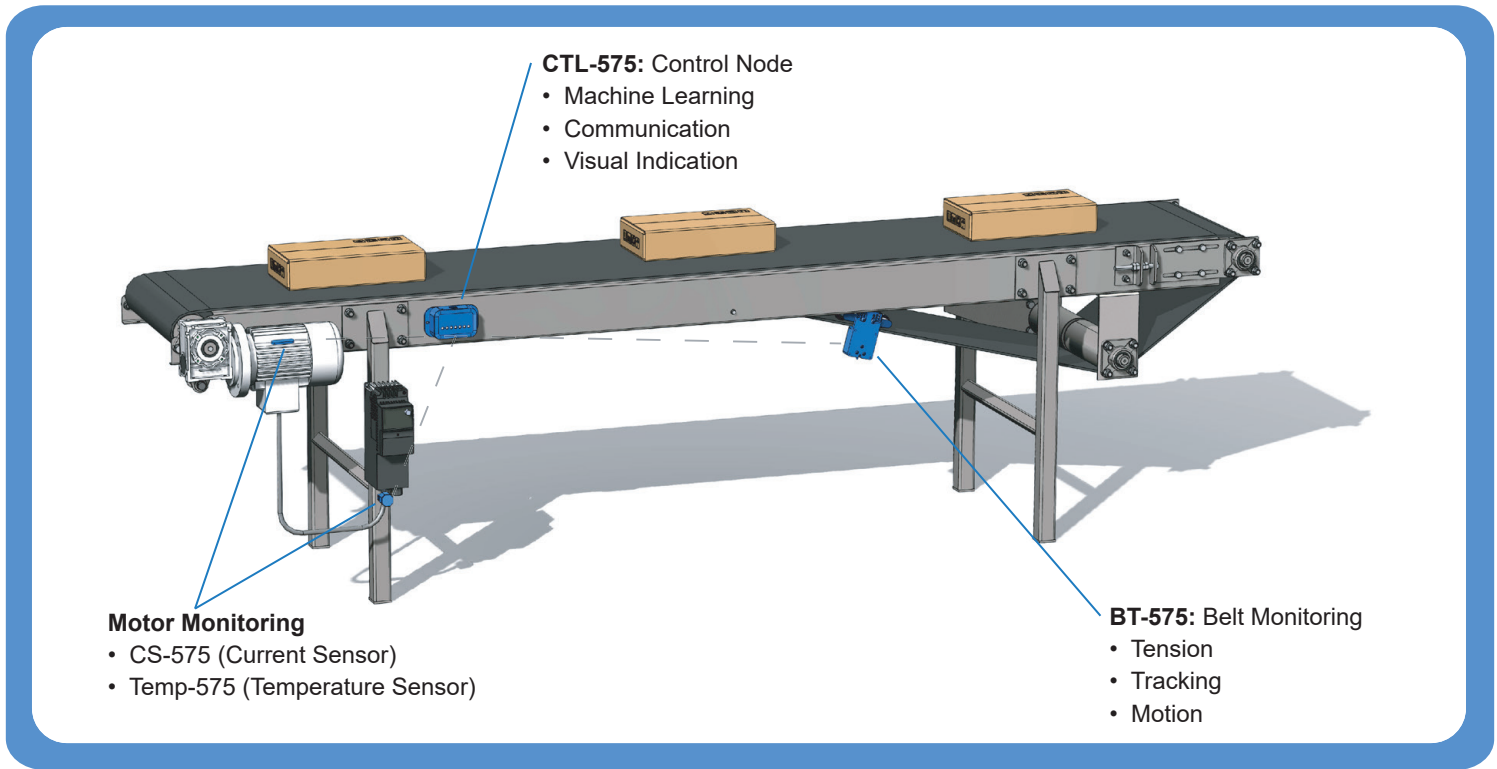


Belt Motion



Temperature





Ordering Part Numbers

CTL-575: Control Node

X-100-0011 - 01

Part Number:
CTL-575

CS-575: Current Sensor

E-111-0001 - 01

Part Number:
CS-575

Rx-575: Wireless Base Station

X-100-0006 - 20

Part Number:
Rx-575

Temp-575: Temperature Sensor

E-111-0002 - 01

Part Number:
Temp-575

BT-575: Belt Monitoring

X-100-0013 - XX

Part Number:
BT-575

Configuration:

- 01 = 10kg [22 lb.]
- 02 = 30 kg [66 lb.]
- 03 = 50 kg [110 lb.]
- 04 = 100 kg [220 lb.]
- 05 = 300 kg [661 lb.]
- 06 = 500 kg [1102 lb.]
- 07 = 1000 kg [2205 lb.]

PSA-575: Predictive Software Analytics

E-301-0008 - XX

Part Number:
PSA-575

Modules:

- 01 = Belt Tension / Motion
- 02 = Belt Vibration
- 03 = Motor Monitoring



DESCRIPTION

The CTL-575 Control Node provides an end-to-end solution to measuring, monitoring, and detecting abnormal operating conditions of industrial equipment. Machine Learning algorithms learn the equipment’s use and operating profiles, providing real-time predictive maintenance information and failure windows. Data and fault status can be transmitted to a host PC via long range wireless or Ethernet wired connection. The control node can monitor multiple sensor add-ons, providing monitoring flexibility of operating conditions.

- Real time data monitoring and storage
- Machine learning algorithms
- Encrypted Wireless
- Internal Antenna
- CAT 5/6E Ethernet



Seven (7) Indicating LEDs

Mounting provisions

Power and Sensor(s) connection

SPECIFICATIONS

Sensor Add-ons

- Belt Tension
- Belt Tracking
- Belt Motion
- Current
- Temperature

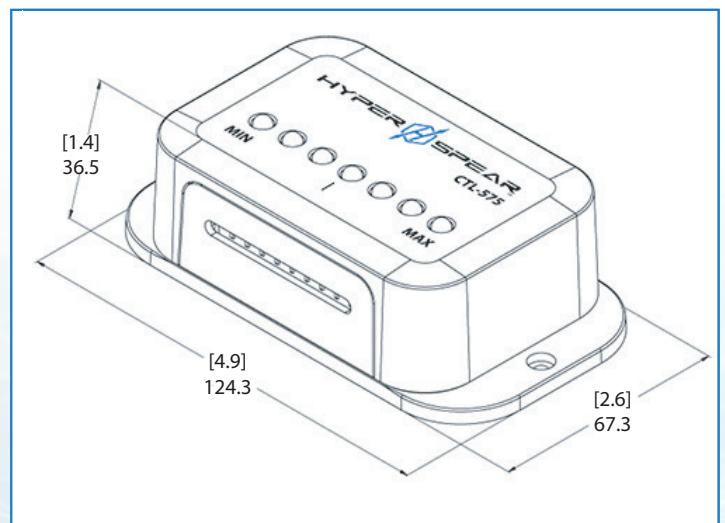
Properties

- Power: 5-32 VDC (120 VAC optional)
- Weight: 115 g [4.06 oz]
- Dimensions: 67.3 x 124.3 x 36.5 mm [2.6 x 4.9 x 1.4 in]
- Material: Flame-resistant ABS UL94V-0
- Protection class: IP40
- Operating Temperature: -10° to +60°C [14° to +140°F]
- 50/60 Hz Rejection
- Highly Integrated / Accurate Delta-Sigma Converters

Communication

- Wireless: Long Range (AES 127-Bit Encryption)
 - Built in wireless antenna (sub GHz)
- Wired: Cat 5/6e Ethernet (100 baseT)
- Visual: Seven (7) indicating LEDs
- Digital Fault Indication with ASI/PLC connection

DIMENSIONS





DESCRIPTION

Patented design to monitor operational industrial belt tension, motion, and vibration. The robust and versatile BT-575 add-on sensor mounts onto most belts, ranging in thickness from 2mm [0.08in] to 20mm [0.78in]. In conjunction with the control node [CTL-575], visual LED indication for belt tension is provided for quick at glance diagnostics.



SPECIFICATIONS

Properties

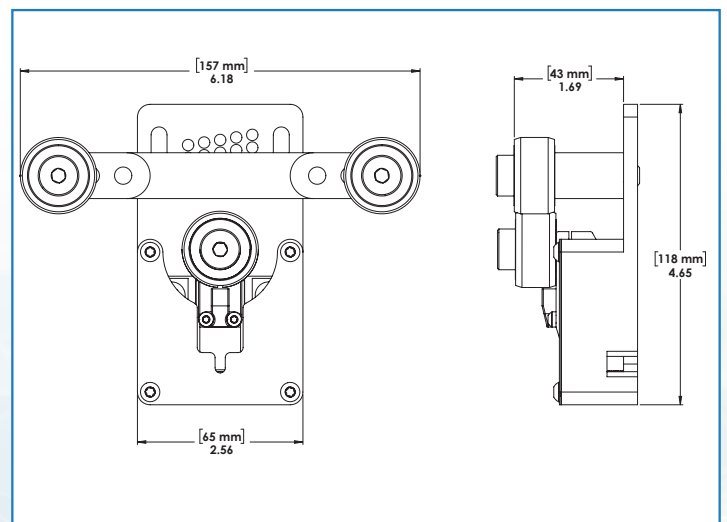
- Material: Aircraft Aluminum, Corrosion Resistant Steel
- Weight: 115 g [4.06 oz]
- Dimensions: 157 x 118 x 50 mm [6.2 x 4.7 x 1.9 in]
- Operating Temperature: -10° to +60°C [14° to +140°F]
- Belt thickness: 2 to 20 mm [0.08 to 0.78 in]
- Belt tension: 10 to 1000 kg [22 to 2205 lb.]
- Frequency detection range: 0 - 1000 Hz

General

- NIST Calibration
- Cable Length: 3 m [10 ft]
- Cable Gauge: 30 AWG

Model	Max Load	Accuracy [± 0.3%]
BT-575-10	10 kg [22 lb.]	0.03 kg [0.1 lb.]
BT-575-30	30 kg [66 lb.]	0.09 kg [0.2 lb.]
BT-575-50	50 kg [110 lb.]	0.15 kg [0.3 lb.]
BT-575-100	100 kg [220 lb.]	0.3 kg [0.7 lb.]
BT-575-300	300 kg [661 lb.]	0.9 kg [2.0 lb.]
BT-575-500	500 kg [1102 lb.]	1.5 kg [3.3 lb.]
BT-575-1000	1000 kg [2205 lb.]	3.0 kg [6.6 lb.]

DIMENSIONS



PATENTED



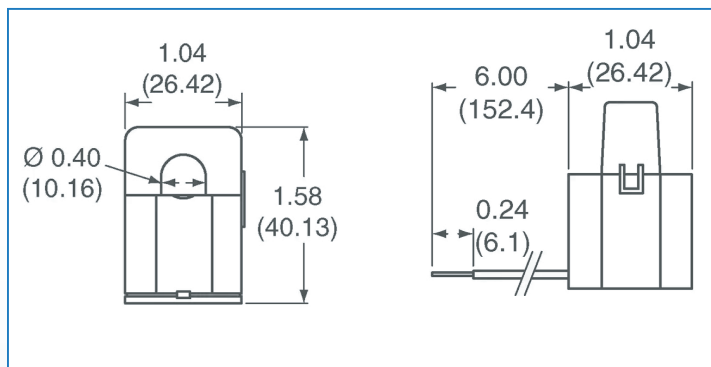
DESCRIPTION

CS-575: Current Sensor

Diagnostic add-on sensor measures and monitors industrial equipment current. Maximum sense currents up to 75 Amps. A split-core current sensing ring allows for quick non-invasive installation onto any device.



DIMENSIONS



SPECIFICATIONS

Properties
• Non-Invasive Split Core
• Current Max: 75 Amp
• Frequency Range: 50/60 Hz
• DC Resistance (DCR): 515 mOhm
• Cable Length: 2 m [6.6 ft]
• Operating Temperature: -10° to +60°C [14° to +140°F]

DESCRIPTION

TEMP-575: Temperature Sensor

Diagnostic add-on temperature sensor provides a solution to measure and monitor industrial equipment temperature. The sensor uses a high-temperature adhesive patch that mounts to flat or curved surfaces, providing highly precise real-time data.




SPECIFICATIONS


Properties
• Type: K
• Temperature Range: -60° to +250°C [-75° to +480°F]
• Self-Adhesive patch
• Patch Size: 15 x 24 mm [0.6 x 1.0 in]
• Cable Length: 2 m [6.6 ft]
• Accuracy: ±1.5°C or 0.4% t °C
• Termination: 50 mm [2 in] stripped wire leads



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