Johnson Controls TE-6100-2

Johnson Controls TE-6100-2 Nickel Temperature Sensing Element Instruction Manual

Model: TE-6100-2

1. Product Overview

The Johnson Controls TE-6100-2 Series Nickel Temperature Sensing Element is designed for a wide variety of temperature sensing applications. This unit features a nickel sensor element, providing specific resistance ranges suitable for various control systems. It is often used in HVAC systems as an accessory for thermostats.

Key features include:

- **Nickel Sensor Element:** Provides specific resistance ranges for diverse applications.
- **Conduit Box Design:** Facilitates secure and protected wiring connections.
- **Averaging Capability:** Designed for 8-foot averaging temperature sensing.

Figure 1: Johnson Controls TE-6100-2 Nickel Temperature Sensing Element. This image shows the metallic conduit box with an attached label indicating "TE-6100-2 AVERAGING TEMP. SENSOR 1000 OHM-8 FOOT" and several copper wires extending from the top, coiled for an 8-foot averaging length.

2. Setup and Installation

Proper installation is crucial for accurate temperature sensing. This device is intended for use by qualified personnel.

2.1 Safety Precautions

- Disconnect all power to the system before installation to prevent electrical shock or equipment damage.
- Follow all local and national electrical codes.
- Ensure proper grounding of the conduit box if required by local codes.

2.2 Mounting

The TE-6100-2 can be mounted using various optional mounting assemblies, such as brackets or wall plates, depending on the application requirements. Secure the conduit box firmly to a stable surface in the desired sensing location.

2.3 Wiring

Connect the sensor wires to the appropriate terminals on your control system or thermostat. Refer to the wiring diagram provided with your specific control system for correct connections. The nickel sensor element provides a 1000 ohm resistance at a reference temperature (typically 70°F or 21°C).

- Ensure all connections are secure and insulated.
- Avoid routing sensor wires near sources of electromagnetic interference.

3. Operation

The TE-6100-2 functions by changing its electrical resistance in response to temperature variations. This resistance change is then interpreted by a compatible control system (e.g., a thermostat or building management system) to regulate heating, ventilation, or air conditioning.

- The sensor provides an 8-foot averaging temperature measurement, meaning it senses the average temperature along its 8-foot length.
- The 1000 ohm nickel element offers specific resistance characteristics that must be matched with the input requirements of the connected controller.

Once installed and wired correctly, the sensor continuously provides temperature data to the connected control system without requiring user interaction.

4. Maintenance

The Johnson Controls TE-6100-2 is designed for reliable, long-term operation with minimal maintenance. Regular inspection can help ensure optimal performance.

- **Periodic Inspection:** Annually inspect the sensor and its wiring for any signs of physical damage, corrosion, or loose connections.
- **Cleaning:** If the conduit box or sensor wires accumulate dust or debris, gently clean them with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Environmental Conditions:** Ensure the sensor remains within its specified operating environmental conditions to prevent premature failure.

5. Troubleshooting

If the temperature sensing system is not functioning as expected, consider the following troubleshooting steps:

- **No Reading or Incorrect Reading:**
  - Verify that power is supplied to the control system.
  - Check all wiring connections for tightness and correct polarity.
  - Inspect the sensor wires for any breaks or damage.
  - Ensure the sensor type (nickel 1000 ohm) is correctly configured in the connected control system.
- **Intermittent Readings:**
  - Check for loose wiring connections.
  - Investigate potential sources of electromagnetic interference near the sensor wiring.
- **Sensor Damage:** If the sensor or its wires are physically damaged, replacement may be necessary.

If issues persist after performing these checks, consult a qualified HVAC technician or contact Johnson

Controls technical support.

6. Specifications

Feature	Specification
Model Number	TE-6100-2
Sensor Type	Nickel Temperature Sensing Element
Resistance	1000 ohms (+/-1%)
Averaging Length	8 feet
Product Dimensions	11.5 x 9 x 3 inches
Item Weight	1.15 Pounds
Manufacturer	Johnson Controls Inc

7. Warranty Information

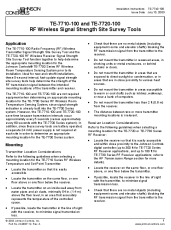
Specific warranty details for the Johnson Controls TE-6100-2 are typically provided at the point of purchase or can be found in the official product documentation from Johnson Controls. Please retain your proof of purchase for warranty claims. For detailed warranty terms and conditions, refer to the official Johnson Controls website or contact their customer service.

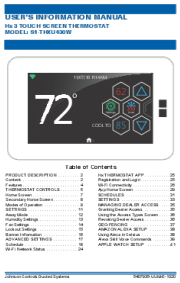
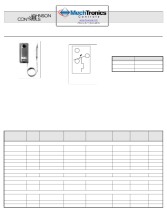
8. Customer Support

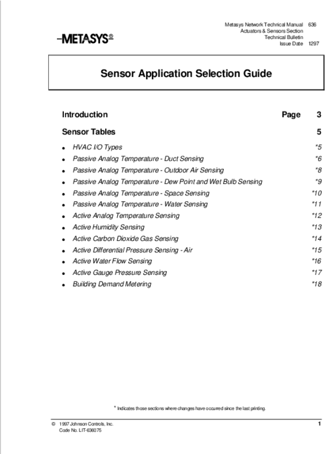
For technical assistance, product inquiries, or support, please contact Johnson Controls directly. Their official website usually provides contact information for customer service and technical support departments.

- Visit the official Johnson Controls website for the latest support resources.
- Have your product model number (TE-6100-2) and any relevant system information ready when contacting support.

Related Documents - TE-6100-2

	TE-7710-100 and TE-7720-100 RF Wireless Signal Strength Site Survey Tools Installation Guide Installation instructions and guide for Johnson Controls TE-7710-100 and TE-7720-100 RF Wireless Signal Strength Site Survey Tools, detailing application, mounting, setup, signal checking, and technical specifications for the TE-7700 Series RF Wireless Room Temperature Sensing System.

	[Johnson Controls A421 Series Electronic Temperature Controls with Off-Cycle Defrost Installation Instructions] Comprehensive installation guide for Johnson Controls PENN A421 Series Electronic Temperature Controls, featuring off-cycle defrost functionality. Covers product overview, applications, dimensions, mounting, wiring, setup, adjustments, troubleshooting, and technical specifications.
	[Hx 3 Touch Screen Thermostat User Information Manual] This user information manual provides detailed instructions and guidance for the Johnson Controls Hx 3 Touch Screen Thermostat (Model: S1-THXU430W), covering installation, features, operation, app connectivity, and settings.
	[A419 Series Electronic Temperature Controls with Display and NEMA 1 or NEMA 4X Watertight Enclosures] This technical bulletin from Johnson Controls details the A419 Series Electronic Temperature Controls, designed for single-stage refrigeration and HVAC applications. It covers features, benefits, NEMA 1 and NEMA 4X enclosure options, operation, wiring, adjustments, troubleshooting, fault codes, ordering information, and technical specifications.
	[TEC3000 Series Wireless Economizer Thermostat Controllers: Installation Guide] Comprehensive installation instructions for the Johnson Controls TEC3000 Series Wireless Single- or Two-Stage Economizer Thermostat Controllers, covering applications, location, wiring, setup, adjustments, and troubleshooting.
	[Johnson Controls A19 Series Remote Bulb Control - Temperature Sensors] Detailed specifications and selection guide for Johnson Controls A19 Series remote bulb temperature controls, used in HVAC, heating, ventilating, and refrigeration applications. Includes model numbers, electrical ratings, and features.



[pdf] User Manual Guide Technical Bulletin

Sensor Application Selection Guide METASYS RELEASE 9 Emily N Petrick 636075 cgproducts johnsoncontrols 80 MET

Metasys Network Technical Manual Actuators Sensors Section Technical Bulletin Issue Date 636 1297 ... PTC Element 673 to RTD 2 to 4 wire -50 to 250F 1000 ohm at 70F 1597 ohms FM-IUN101 -45 to 121C **TE-6100-2** or TE-6315P- -50 to 250F 1 /- 1.0 -45 to 121C 8 ft Element Silicon PTC 1035 ohm at ...

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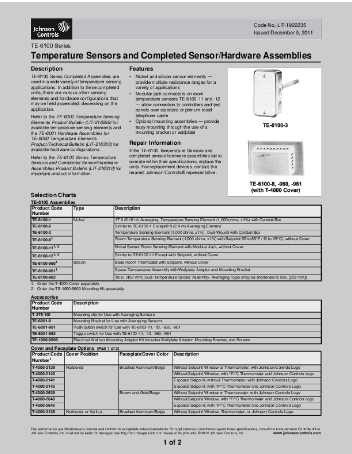

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TE 6100 Series Temperature Sensors and Completed Sensor Hardware Assemblies Catalog Page Specification SheetTE 2 alpscontrols1922235cdn epartsservices newdocs johnson controls 1922235 Sheetproduct overviewTE alpscontrolsTE 6300 105 Johnson Controls Trimmable 12 Thermometer Central1397945235tecdn 1922235thermometercentral media industrialstores product attachments 1397945235te overviewDownloadTE CentralBE CompletedAssembliesTE6100BE CompletedAssembliesTE6100cdn 1397945235tetyco widen net content prdgxsscs6 original BE CompletedAssembliesTE6100 u d73svt true |||

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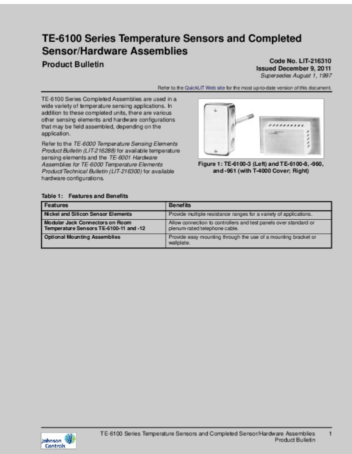

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TE-6100 Series Temperature Sensors and Completed Sensor/Hardware Assemblies Product Bulletin Code ... following selection chart. Table 2: Selection Chart Product Code Number Type TE-6100-1 Nickel **TE-6100-2** TE-6100-3 TE-6100-81 TE-6100-111,2 TE-6100-121,2 TE-6100-9601 TE-6100-9611 TE-6100-962 Si...

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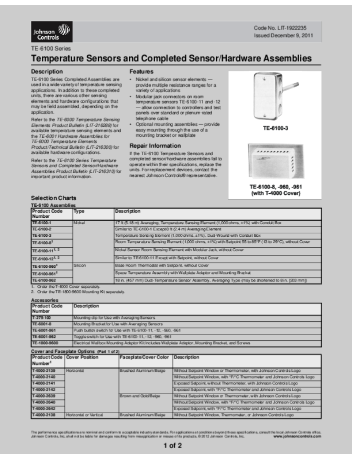

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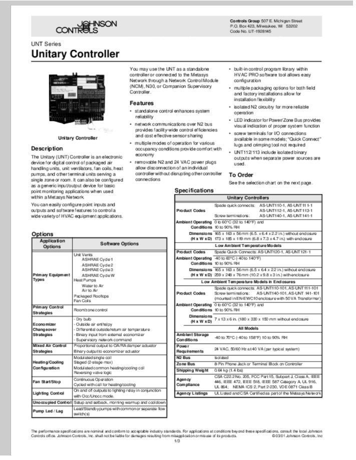

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Controls Group 507 E. Michigan Street P.O. Box 423, Milwaukee, WI 53202 Code No. LIT-1928145 unt_co ... ber Description C-1 1 TE-1 1 TE-2 1 TE-3 1 S-1 1 DA-1 1 XFR-1 1 AS-UNT110-1 TE-67NP-1B00 **TE-6100-2** TE-6001-2 TE-6000-1 P32AC-2 M110CGA-2 AS-XFR050-0 Digital Controller Zone Temperature Sen...

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produkter Minikatalog 2014 Johnson Controls Systems Service AB Stockholm Rissneleden 136 174 57 ... 9SY-1C A99LY-xxxC Temperaturgivare NI1000 fr FEC.., FX.. och DX.. Best. nr TE-6000-100 TE-6100-1 **TE-6100-2** Omrde C Prod.grupp Applikation. Element Material Beskrivning -46/ 121 300 Ls givare N...

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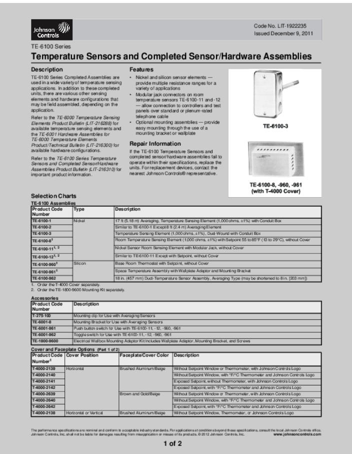

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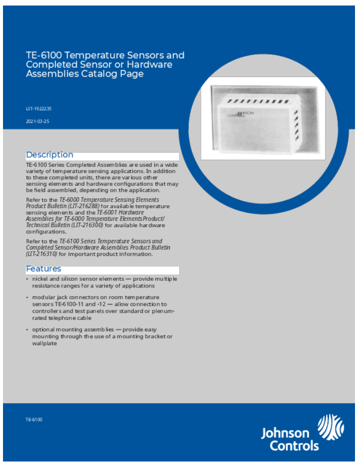

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TE-6100 Temperature Sensors and Completed Sensor or Hardware Assemblies Catalog Page LIT-1922235 202 ... trols representative. Selection Charts Table 1: TE-6100 Assemblies Product Code Number TE-6100-1 **TE-6100-2** TE-6100-3 TE-6100-811 TE-6100-1121, 2 Type Nickel Description 17 ft 5.18 m Averaging, ...

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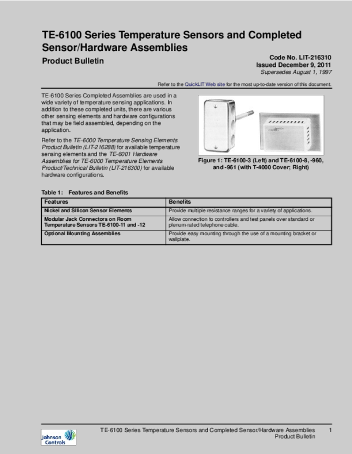

TE-6100 Series Temperature Sensors and Completed Sensor/Hardware Assemblies

Product Bulletin

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TE 6100 Series Temperature Sensors and Completed Sensor Hardware Assemblies Product Bulletin 4 Ordering Information Specify the code number from following selection chart Table 2 Selection Chart Code Number Type Description 1 216310 BE ProdBulliten CompletedAssembliesTE6100 cgproducts johnsoncontrols met 80 media jci be united states hvac controls control sensors files prodbulliten completedassemblieste6100 la en

TE-6100 Series Temperature Sensors and Completed Sensor/Hardware Assemblies Product Bulletin Code ... following selection chart. Table 2: Selection Chart Product Code Number Type TE-6100-1 Nickel **TE-6100-2** TE-6100-3 TE-6100-81 TE-6100-111,2 TE-6100-121,2 TE-6100-9601 TE-6100-9611 TE-6100-962 Si...

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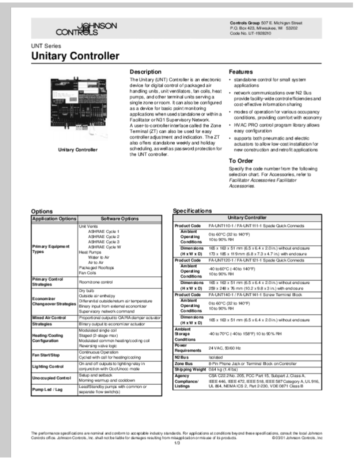

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UNT Series Unitary Controller 1928210 cgproducts johnsoncontrols 80 cat

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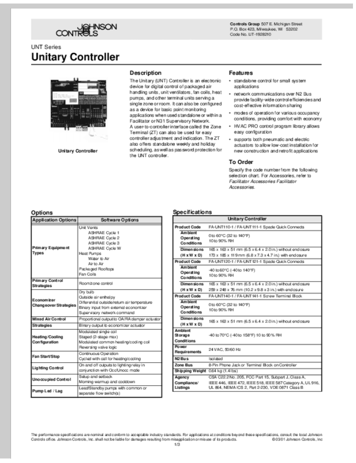

UNT Series

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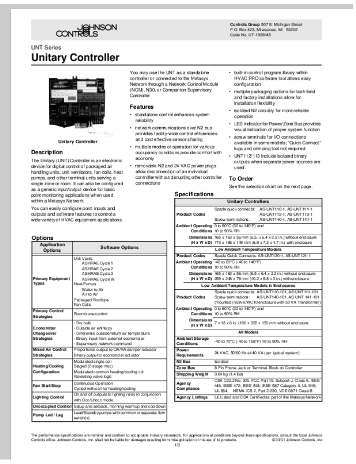

UNT Series

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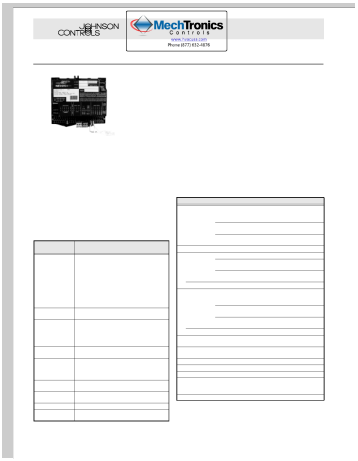

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Space or Room Air Control Application Note 6363228 cgproducts johnsoncontrols 80 MET

APPLICATION NOTE Issue Date 01/17/02 Space or Room Air Control Space or Room Air Control .... 100G, H, or C Series Actuators when using multiple actuators. Table 2: Air Sensor Mixed Air Sensor **TE-6100-2**, Nickel 1 , 1000 ohms at 70F 21C , 8 ft TE-6100-1, Nickel 1 , 1000 ohms at 70F 21C , 1...

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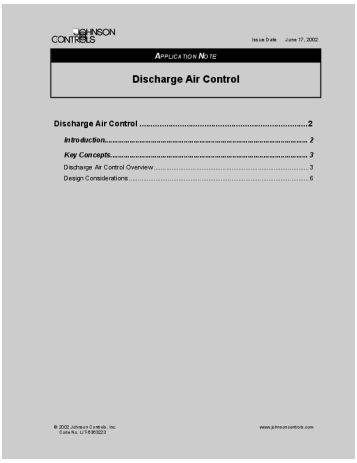

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Discharge Air Control Application Note 6363223 cgproducts johnsoncontrols 80 MET

APPLICATION NOTE Issue Date June 17, 2002 Discharge Air Control Discharge Air Control .... actuators. Discharge Air Control Application Note 5 Table 2: Mixed Air Sensor Mixed Air Sensor **TE-6100-2**, Nickel 1 , 1000 ohms at 70F 21C , 8 feet TE-6100-1, Nickel 1 , 1000 ohms at 70F 21C , 1...

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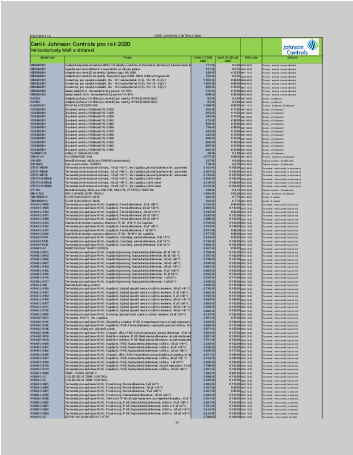

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