Superior Temperature Control and Accuracy for Both Refrigeration and Heating Applications...and It’s Universal, Too!

- 16E09-101 replaces most mechanical and electronic single stage controls using an SPDT output relay
- Offers the widest multiple voltage operating range: 24/120/208/240 VAC for truly universal replacement
- Does not require a common wire when electrical load is greater than 2.5 amps — saving 30 to 60 minutes installation time when upgrading a mechanical control
- Offers a wider than industry standard setpoint temperature range (-40°F to 220°F) and adjustable differential settings
- Reduces inventory — 16E09-101 replaces most competitive mechanical and electronic refrigeration controls

**Features**
- Multiple Input Voltages
  - (24/120/208/240 Volts AC)
- No Common Wire Required* (Electrical load must be greater than 2.5 amps and uninterrupted)
- Electronic Temperature Accuracy
- Alarm Output (with selectable delay – up to 99 minutes)
- Adjustable Anti-Short Cycle Delay
- Setpoint Locking Function

**Applications**
- Convenience Store Freezer Control
- Reach-In Coolers
- Supermarket Display Cases (meat/produce)
- Boiler Control
- Restaurant/Convenience Store Walk-In Coolers
- Condenser Fan Cycling
- Pump Control
- Space and Return Air Temperature

**Includes**
- NTC Sensor with 7.5-Ft. Leads
- Cross-Reference Replacement Guide

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*Electrical load must be greater than 2.5 amps and uninterrupted
### 16E09-101
Universal Replacement
Electronic Refrigeration
or Heating Control

- Alarm Output with Selectable Delay
  Prevents false alarms
- No Common Wire Required (Electrical load must be greater than 2.5 amps and uninterrupted)
  Saves 30-60 minutes installation time when upgrading a mechanical control

### Specifications

- Setpoint Range:
  - -40° to 220°F (-40° to 104°C)
- Differential Range: 1° to 30°F (1° to 30°C)
- Supply Voltage: 24/120/208/240 VAC, 60Hz
- Sensor: Negative Temperature Coefficient (NTC) or Positive Temperature Coefficient (PTC) with 7.5-ft Leads (Maximum length for remote temperature sensing – 400 feet)
- Control Enclosure Ambient Temperatures
  - Operating: -29° to 140°F (-34° to 60°C)
  - Storage: -40° to 185°F (-40° to 85°C)

### Control Material
- Cover and Case: NEMA 1 high-impact plastic
- Thermoplastic: Non-flammable UL94V0
- Switch Action: SPDT
- Transformer: 1:1 to 1:1
- Switch Action: SPST
- Supply Voltage: 120VAC, 60Hz Max. (Class 2)
- Horsepower: 1 hp
- Locked rotor amps: 96 Amps
- Full load amps: 16 Amps
- Applied voltage: 120 VAC
- Minimum load: 1 Amp @ 24 VAC

### For Additional Information
Visit www.white-rodgers.com

### Typical Wiring

#### Line Voltage Application (Power Stealing)

- Voltage Input
- Contactors
- Transformer
- Switches
- Radiant Panel
- Bin
- Load
- Alarm

#### Line Voltage Application (Non-Power Stealing)

- Voltage Input
- Contactors
- Transformer
- Switches
- Radiant Panel
- Bin
- Load
- Alarm

#### VAC Applications (Non-Power Stealing)

- Voltage Input
- Contactors
- Transformer
- Switches
- Radiant Panel
- Bin
- Load
- Alarm

### Alarm Output with Selectable Delay

- Prevents false alarms
- For optional connection to customer alarm equipment

### Alarm Relay Electrical Ratings

- **N.C. and Load Contacts (Maximum Load Current)**
  - 24 VAC: 100 VA, 30 VAC Max. (Class 2)
  - 1 hp 1 hp 1 hp
  - Locked rotor amps: 96 Amps 55.2 Amps 48 Amps
  - Full load amps: 16 Amps 9.2 Amps 8 Amps
  - Applied voltage: 120 VAC 208 VAC 240 VAC

### Universal Replacement

- Replaces the Following Models
  - T675A1516
  - T675A1508
  - T675A1458
  - T675A1441
  - T675A1425
  - T675A1136
  - T675A1045
  - T6054A1054

### 16E09-101 Replaces the Following Models

- Honeywell
  - T675A1034
  - T675A1036
  - T675A1040
  - T675A1046
  - T675A1050
  - T675A1516
  - T675A1518

- Johnson Controls
  - A419ABC-1C
  - A320ABC-1C
  - A19BBC-2C†
  - A19BAC-1C†
  - A19BAB-3C†
  - A19ABC-24C†

- Ranco ETC Commercial
  - 060-109†
  - 060-101†
  - 060-100†

- Emerson
  - 060-200†

### 16E09-101 is not rated as a limit control

- 16E09-101 is a replacement on non-inductive applications up to 16 amps

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St. Louis, Missouri
314-553-3600
www.white-rodgers.com
www.emerson.com

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