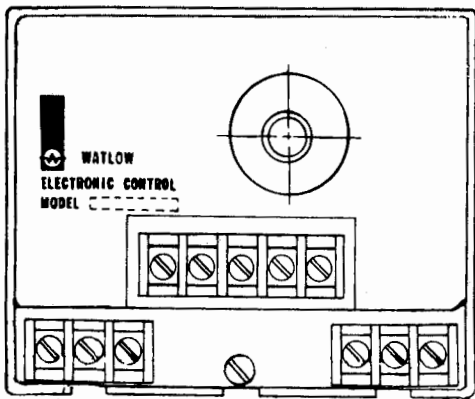


# DATA SHEET

## 258 SERIES



### FEATURES

- Sub-panel Mount
- Dual Output (15A/1A S.S.)
- Time Proportioning (Both Outputs)
- Automatic Reset (Both Outputs)
- Adjustable Rate (Both Outputs)
- 115/230 VAC Operation (Field Selectable)
- Analog and Digital Meter Drive for Temperature Indication
- RTD, Thermistor, and Thermocouple Sensor Inputs
- Adjustable Dead Band, T.P., Reset, Rate
- Range Change Possible by Change of Bridge Board
- Sensor Change Possible by Change of Bridge Board
- Program Input Bridge Boards Available
- Remote or Integral Set Point Potentiometer

### GENERAL

The Series 258 sub-panel controller is a dual output, heat/cool temperature control with time proportioning, auto reset, and rate for each output as the control mode. There are potentiometers for external adjustment of each of these features.

The controller will accept thermistor, RTD, or thermocouple inputs. The standard bridge boards will drive a full scale analog meter and special bridge boards feature a 5 mv/LSD output capable of driving a digital meter. The special bridge boards will accept the standard type of set point assembly or they will accept a 5 mv/LSD program input.

### SPECIFICATIONS:

#### CONTROL MODE:

Dual output with time proportioning, automatic reset, and rate on both outputs.

**OUTPUTS: HEATING:** Solid state zero switching, isolated triac rated 15 amp. at 120/240 VAC.

Note: Load current must be .1 amp to insure proper triac switching.

**COOLING:** Solid state zero switching, isolated triac rated 1 amp at 120/240 VAC.

Note: Load current must be .05 amp to insure proper triac switching.

**AUXILIARY OUTPUTS:** Depends on model. Available options:

- 1) 0 to 1 mA available for direct temperature indication on calibrated meter.
- 2) 5 mv/°F available for direct temperature indication on digital meter — RTD models only.

**LINE VOLTAGE:** 120/240 VAC  $\pm$  20%, 50/60 Hz.

**POWER CONSUMPTION:** Less than 3.5 V.A.

**OPERATING AMBIENT:** 30 to 130°F.

#### CONTROL ACCURACY:

Typically  $\pm$  1/2°C, depending on design of thermal system.

#### SET POINT SHIFT W/AMBIENT:

Typically 5 microvolts/°F ambient referred to the input (thermocouple models).

Typically  $\pm$  1°F (RTD and thermistor models).

#### SET POINT SHIFT W/LINE VOLTAGE:

$\pm$  20% change in line voltage will produce a set point shift of less than  $\pm$  .25% of span.

**ISOLATION:** Thermocouple Models — T.C. input to line and load. D.C. resistance:  $10^{11}$  ohms. Capacitance: 50 pf.

RTD and Thermistor Models — Sensor and control circuitry are isolated from line and load.

#### SENSOR PROTECTION:

RTD and Thermocouple Models — In the event of an open sensor, the cooling output will energize.

Thermistor Models — In the event of a shorted sensor, the cooling output will energize.

#### COLD JUNCTION COMPENSATION:

Automatic; thermocouple is connected directly to unit.

**PROPORTIONAL BAND:** Adjustable 5 to 50°F.

**AUTOMATIC RESET:** Adjustable .5 to .05 repeats per minute (equivalent to 2 to 20 minutes).

**RATE:** Adjustable 0 to 5 minutes.

**CYCLE TIME:** Varies cycle time automatically when control is within proportional band — typically 5 seconds minimum, 60 seconds maximum.

**DEAD BAND:** (Cooling Potentiometer) Adjustable from 0 to a minimum of 10°F.

**SET POINT ADJUSTMENTS:** Depends on model. Available options:

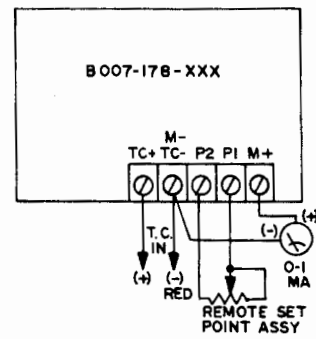
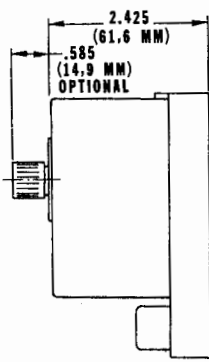
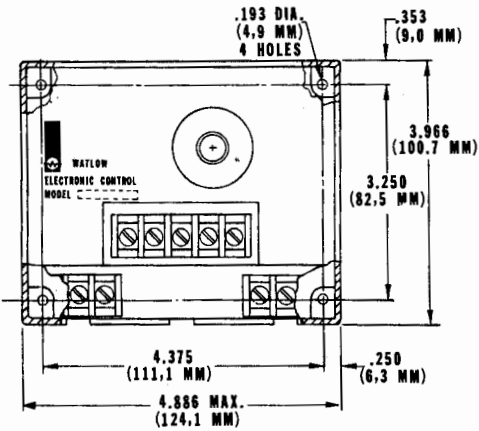
- 1) Integral set point.
- 2) Remote set point.
- 3) 5 mv/°F with auxiliary remote set point for local/remote capability. (5 mv signal supplied with external programmer.)

# WATLOW WINONA, INC.

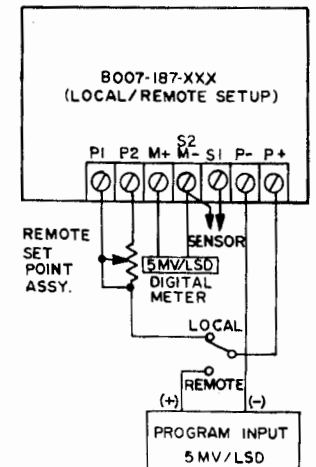
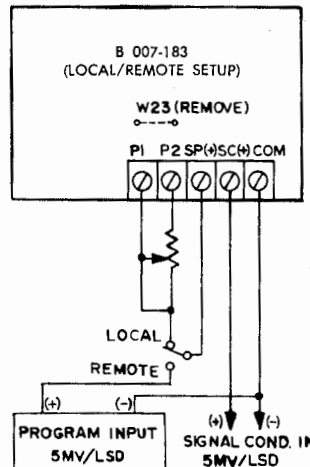
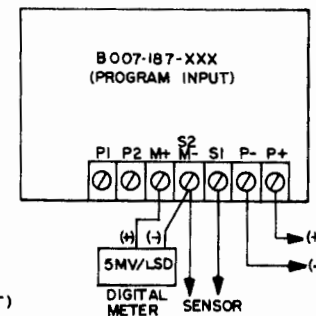
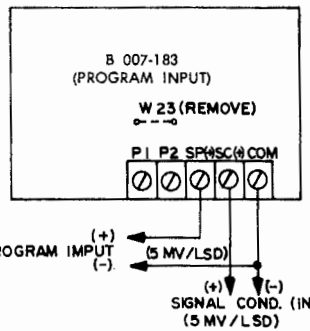
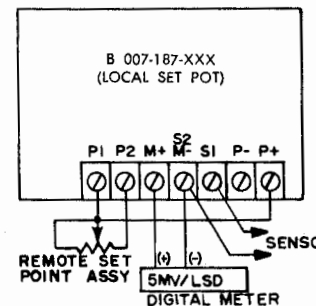
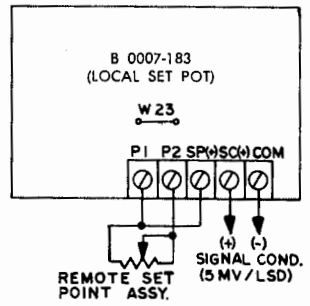
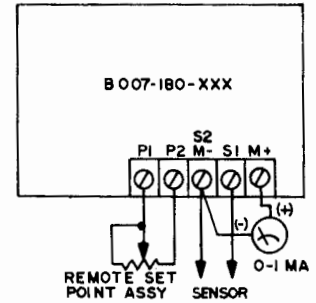
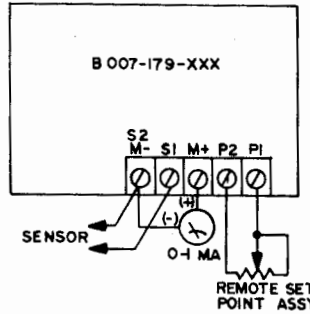
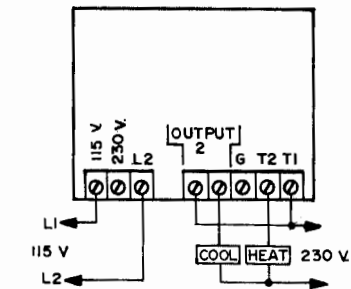
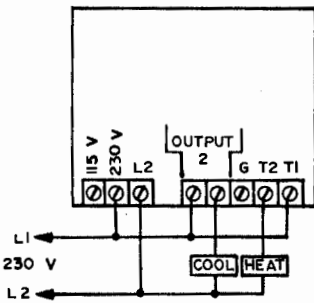
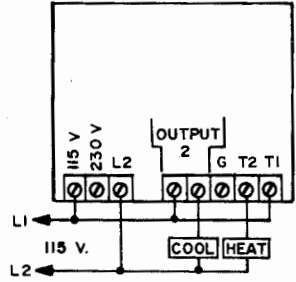
WINONA, MINNESOTA 55987

1265 EAST SANBORN STREET

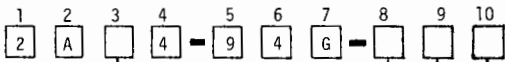
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CONTROL (LOWER BOARD)



ORDERING INFORMATION



3. Set Point  
 0 - Special  
 1 - Internal (Ω)  
 2 - External (Ω)

CODE: SEE RANGE CHART #2