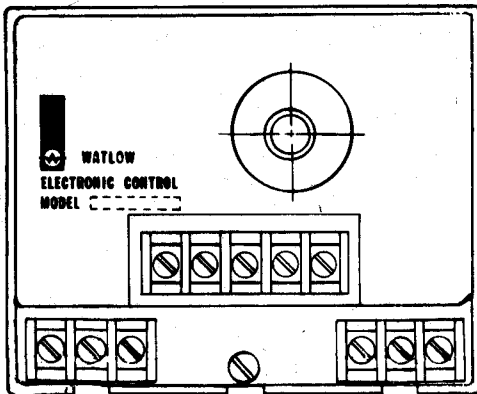


Temperature Controller

DATA SHEET 200 SERIES



FEATURES

- Sub-panel Mount.
- 120/240 VAC operation
(field selectable)
- Range change possible by
change of bridge board
- Sensor change possible by
change of bridge board
- On/Off or time proportioning
- RTD, Thermistor, or T.C.
Sensors
- Relay output
- Line isolated
- Remote or integral setpoint
potentiometer
- Heating or cooling mode
available

GENERAL

The Series 200 Controller is a sub-panel controller. It can operate in a simple on/off mode or as a time proportioning temperature controller. It can accept thermistor, RTD, or thermocouple sensor inputs. The control has been designed for maximum reliability, simple mounting, maximum flexibility, and low cost.

SPECIFICATIONS:

LINE VOLTAGE: 115/230 VAC \pm 20%, 50/60 Hz., field selectable.

POWER CONSUMPTION: Less than 3.5 V.A.

OUTPUT:

S.P.D.T. Relay Contact rated at 10A/120V, 5A/240V resistive; 50 V.A. inductive load. The relay is plug-in for easy replacement.

SWITCHING SENSITIVITY (ON/OFF MODE):

Thermistor sensor — typically 0.1°F. RTD and Thermocouple sensors — typically 0.3°F.

PROPORTIONAL BAND (T.P. MODE): Fixed at 25°F.

CYCLE TIME (T.P. MODE):

Cycle time varies automatically when the control is within the proportional band, typically five (5) seconds when operating at a 50% duty cycle.

SENSOR PROTECTION:

RTD and Thermocouple sensors — In the event of an open sensor, load power will de-energize.

Thermistor — In the event of a shorted sensor, load power will de-energize

OPERATING AMBIENT: 30 to 130°F.

COLD JUNCTION COMPENSATION:

(T.C. Sensor) Automatic: thermocouple is connected directly to the unit.

ISOLATION:

(RTD and Thermistor) Sensor and circuitry are isolated from the line and load.

(Thermocouple) T.C. input to load and line.

D.C. resistance: 10^{11} ohms. Capacitance: 50 pf.

SETPOINT SHIFT WITH AMBIENT:

(T.C. Sensor) Typically 5 microvolts/°F ambient referred to the input.

(RTD and Thermistor Sensors) Typically \pm 1°F.

SETPOINT SHIFT WITH LINE VOLTAGE:

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

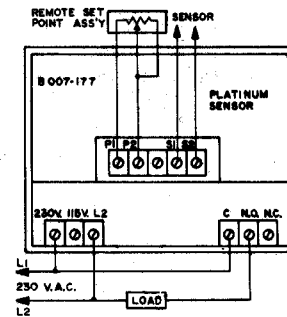
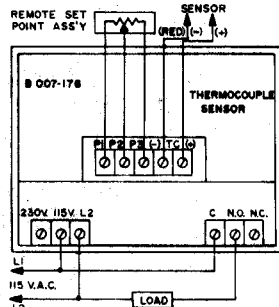
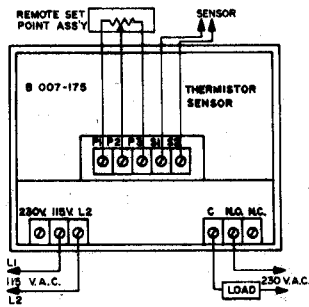
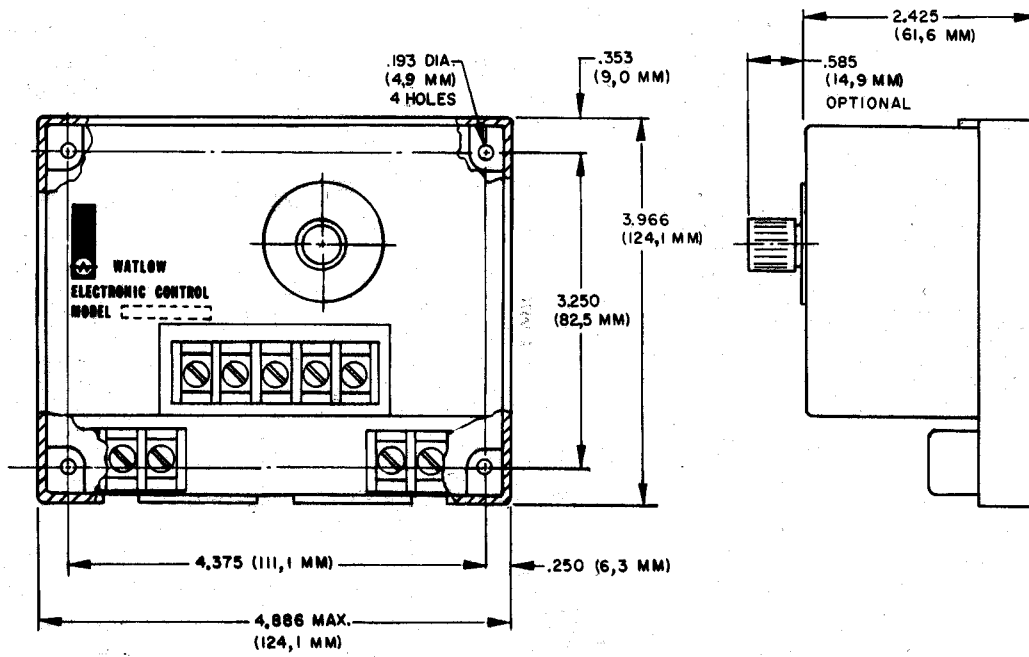
SETPOINT: Standard is remote mounted. Optional: Integral to bridge board.

WATLOW WINONA, INC.

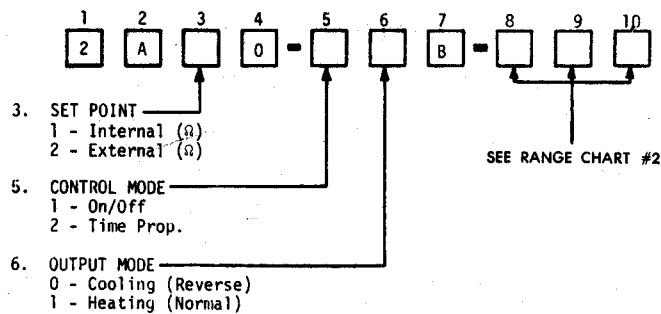
WINONA, MINNESOTA 55987

1265 EAST SANBORN STREET

PHONE 507 454-5300



ORDERING INFORMATION



S E R I E S 2 0 0

<u>OLD PART NUMBER</u>	<u>NEW PART NUMBER</u>	<u>RANGE CODE</u>		
2A10-10B-XXX	200A-2XXX-1000		<u>Thermistor</u>	
2A10-11B-XXX	200A-1XXX-1000		<u>Range</u>	<u>Set Pot</u> <u>Sensor</u>
2A20-10B-XXX	200A-2XXX-2000	300	0-140°F/-20-+60°C	A006-274 800-010
2A20-11B-XXX	200A-1XXX-2000	301	0-250°F/-20-+120°C	A006-275 800-012
2A20-11B-XXX-AA	200A-1XXX-20AA	302	200-600°F/100-320°C	A006-276 800-016
2A10-21B-XXX	200A-3XXX-1000	303	150-450 F/65-230°C	A006-302 800-016
2A20-21B-XXX	200A-3XXX-2000	304	50-150°F/10-65°C	A006-303 800-011
2A20-21B-602-AC	200A-3602-20AC	305	-10 - +100°C	A006-310 800-011
2A20-21B-XXX-AD	200A-3XXX-20AD	306	-30 - +70°C	A006-069 800-011
		307	-45 - +65°C	A006-077 800-010
		308	65 - 95°F	A006-311 800-040
		309	70 - 120°F	A006-312 800-011
		310	75 - 125°F	A006-228 800-011
		311	100 - 150°F	A006-140 800-041
		312	200 - 500°F	A006-313 800-002
		313	0 - 500°F	A006-314 800-018
		314	-20 - +60°C	A006-319 800-011
		315	20 - 120°F	A006-320 800-011
		316	-10 - +45°C	A006-161 800-044
		317	100 - 200°F	A006-333 800-046
		318	-60 - 0°C	A006-427 800-010
			<u>Thermocouple</u>	
		600	0-250°F/-20-+120°C	A006-280 "J"
		601	0-500°F/-20-+260°C	A006-279 "J"
		602	0-1000°F/-20-+540°C	A006-278 "J"
		603	0-2000°F/-20-+1100°C	A006-277 "K"
		604	0-1500°F/0-800°C	NONE "K"
		<u>RH</u>		
		500	0-100% R.H.	

RANGE CODE

Platinum

	<u>Range</u>	<u>Set Pot</u>	<u>Sensor</u>
100	0-600°F/-20-+320°C	A006-281	801-005
101	0-1000°F/-20-+540°C	A006-282	801-005
102	0- ¹⁴⁰ 1000 F / - 20 ¹⁴⁰ +540°C	A006-365	801-005