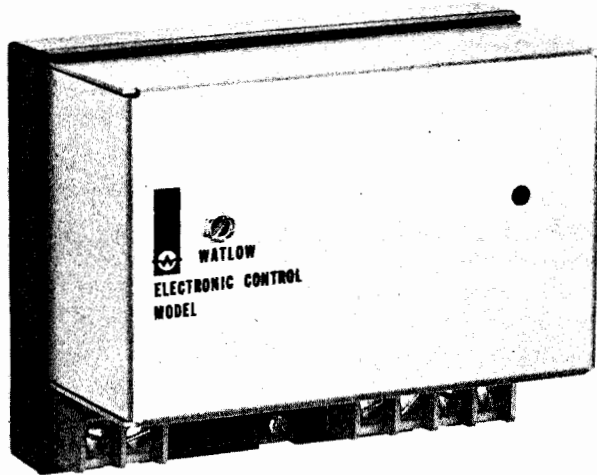


SERIES 266 THERMOCOUPLE SIGNAL CONDITIONER

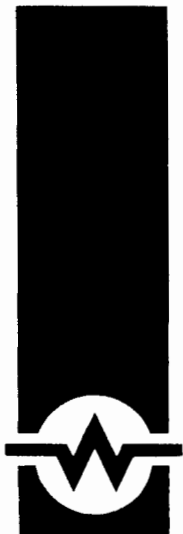
GENERAL



Watlow Series 266 is a sub-panel thermocouple signal conditioner which linearizes the thermocouple millivolt input allowing it to interface with microprocessor-based control systems requiring accurate linear signals. Watlow Series 266 may also interface with digital and analog indicators, chart recorders, data loggers, programmable controllers, computers, etc. The unit is highly stable over the ambient temperature range, and its common mode rejection minimizes the effects of spurious signals, such as R.F.I. and E.M.I. The signal conditioner is designed to interface with Watlow Series 201 through Series 259 sub-panel controls featuring interchangeable bridge boards. The programmable input bridge board for the above controls is used to interface with the Series 266 signal conditioner in a microprocessor-based system. Competitive controls, including the above capabilities, may also be used in conjunction with the signal conditioner.

FEATURES

- Thermocouple Signal Conditioning
- Low Cost Sub-panel Design
- Accepts Type "J" and "K" Thermocouple Inputs
- Factory Selectable Line Voltage
- Automatic Reference Compensation
- Thermocouple Break Protection
- Screw Terminals Standard
- Compatible with Watlow Sub-panel Controllers and Similar Competitive Controls
- Custom Options Available. Consult factory



WATLOW

SPECIFICATIONS

- Factory Selectable Options:

Line Voltage: 115/230 VAC, 50/60 Hz., $\pm 10\%$.

Sensor Input: Type "J" and "K" standard. Other types available on special order.

Calibration Scaling Factors: 5 mV/degree or 2 mV/degree standard. Other scaling factors available on special order.

Temperature Ranges Available from -99°F to 2500°F/0°C to 1360°C. Other ranges available on special order.

- Isolation: Isolation between sensor circuit and output circuit typically less than 20pf. Leakage resistance greater than 100M Ω . Isolation voltage level greater than 250 VAC.
- Linearity: $\pm .25\%$ of span.
- Calibration Accuracy: $\pm .25\%$ of span.
- Calibration Stability: $\pm 20 \mu V$ referred to input over 50°F to 110°F ambient temperature range.
- Operating Ambient: 30°F to 130°F.
- Reference Compensation: Automatic cold junction compensation.
- Thermocouple Break Protection: Upscale.
- Weight: Less than 14 oz.

ORDER INFORMATION

2 6 6 - 0 0 0 0 0

LINE VOLTAGE

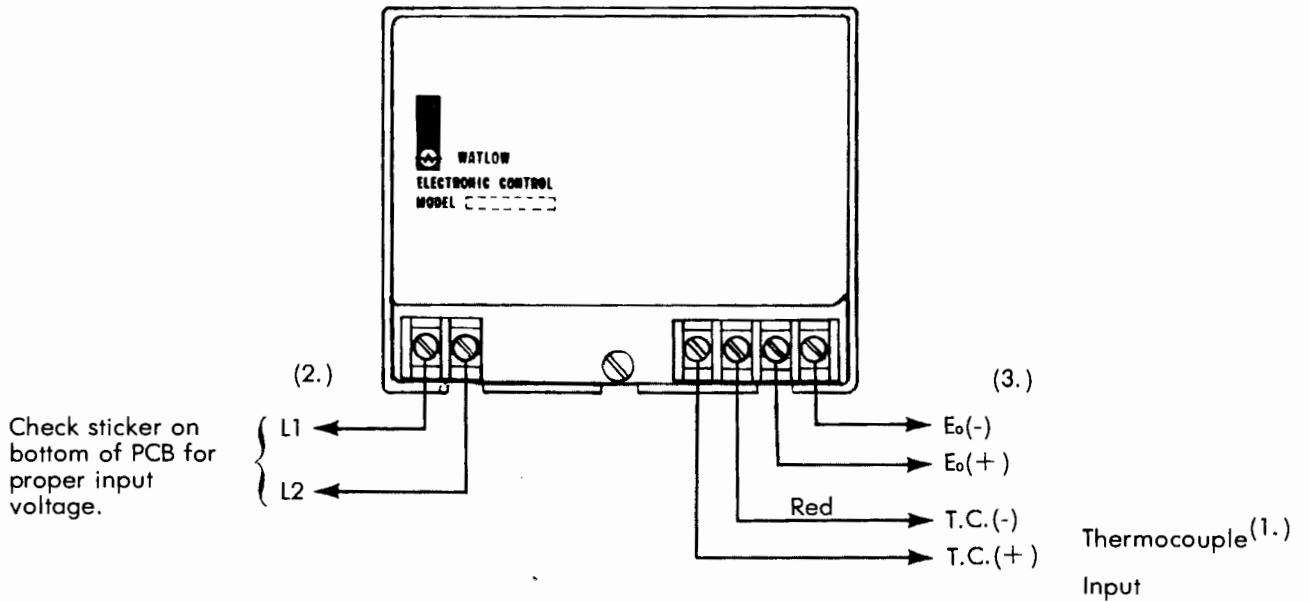
- A = 115 VAC
- B = 230 VAC

TEMPERATURE RANGE, SENSOR AND SCALING

- | | | |
|------|---------------|-----------------|
| 600. | 0 to 1600°F | Type "J" 2mV/°F |
| 601. | 0 to 850°C | Type "J" 5mV/°C |
| 602. | 0 to 2500°F | Type "K" 2mV/°C |
| 603. | 0 to 1360°C | Type "K" 2mV/°C |
| 604. | 0 to 1000°C | Type "K" 5mV/°C |
| 605. | -99 to +999°F | Type "J" 5mV/°F |
| 606. | 0 to 1000°F | Type "K" 5mV/°F |

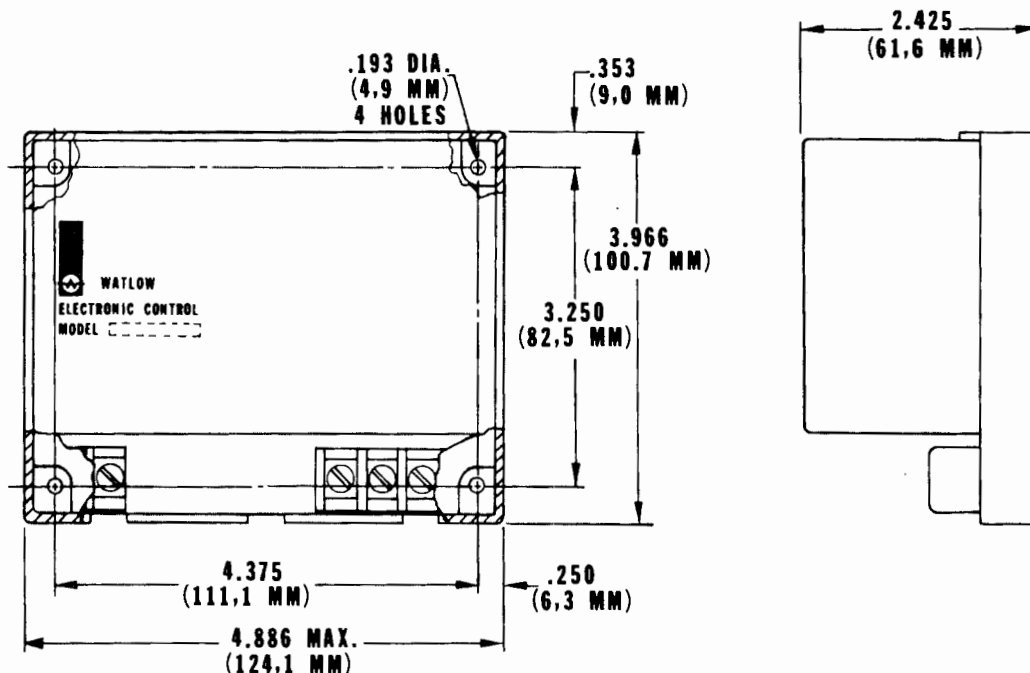
TRANSFORMER REPLACEMENT NUMBER: 0004-0137-0000

ELECTRICAL CONNECTIONS



1. Observe thermocouple type (check sticker on bottom of PCB for proper T.C. type) and polarity (red lead is negative). Whenever possible, thermocouple leads should be twisted pairs routed separately from other wiring or equipment. Wherever heavy electrical currents are being switched or other electrically noisy devices are present, such as, contactors, solenoids, motors, etc., it is recommended that shield thermocouple lead wire be used with the shield grounded at the sensor end only.
2. All wiring should conform to the National Electric Code NFPA70. Contact your local Board for additional information.
3. Linearized mV output to customer supplied indicator, controller, chart recorder, data logger, microprocessor, computer, etc.

INSTALLATION AND DIMENSIONAL INFORMATION



TROUBLESHOOTING CHART

Symptom	Diagnosis	Remedy
No indication or incorrect indication on customer-supplied control/indicator.	Check for presence or proper connection of A.C. input. If not present and proper.....	Connect per Electrical Connection Diagram.
	If present and proper.....	Check fuses or circuit breakers. Check power at A.C. input terminals.
	Check for presence or proper connection of T.C. input. If not present and proper.....	Connect per Electrical Connection Diagram.
	If present and proper.....	Check sensor and sticker on bottom of unit for proper T.C. type. Check for open sensor with customer-supplied DVM.
	Check for presence or proper connection of millivolt output. If not present and proper..	Connect per Electrical Connection Diagram.
	If present and proper.....	Check for proper mV output with customer supplied DVM. Check customer-supplied equipment for proper calibration/operation. Return unit to factory.

RETURNING MERCHANDISE

The following procedure must be used on any returns of product to the factory.

1. Approval from the factory to return the material must be obtained prior to shipping as well as how and why the material is being returned.
2. After receipt of the returns, examination will be made to determine the cause for returning.
3. If it is a manufacturing defect, credit will be issued for the material which may be scrapped or a repair order may be entered to repair or a replacement order may be entered. This is at the discretion of Watlow.
4. If the cost of repairs exceeds 50% of the original cost, the control will be returned as received or scrapped per the instructions on your purchase order.
5. A 20% restocking charge will be applied to all returned stock controls and accessories.

WARRANTY INFORMATION

All Watlow products are warranted to be free of defects in material and workmanship for 18 months from date of shipment or 12 months after delivery to the first purchaser for use, whichever occurs first, providing that the units have not been mis-applied. Since Watlow has no control over their use and sometimes misuse, we cannot guarantee against failure. Watlow's obligations hereunder, at Watlow's option, is limited to replacement, repair or refund of purchase price, any part or parts which upon examination prove to have been defective within the warranty period specified. Authorization must be obtained from Watlow prior to the return of any product under this warranty. This warranty does not apply to damage resulting from transportation, alteration, misuse or abuse.