



SC-4 SIGNAL CONDITIONER

OPERATION

The **SC-4 Signal Conditioner Controller** is a system used for monitoring temperature. This system is used with PTC type Maxi-Tronic RB Series belt misalignment and HB Series bearing temperature sensors.

The SC-4 Unit allows for the use of existing RB and HB or most other PTC (Positive Temperature Coefficient Thermistor) sensors in conjunction with a PLC and computer-based systems. Note: not for use with thermocouple or RTD type sensors.

When each of the sensor inputs is wired to the SC-4 Unit (Fig. 1), it then controls the **OFF** and **ON** action of a SPDT output relay. Contacts are rated at 3 amp @117VAC, 2 amp @24VDC.

Typical Operation:

When the **temperature exceeds the TURN ON point**, the following occurs:

- Red LED indicator will turn ON
- Green LED will turn OFF
- Output RELAY will switch to the OPEN position.

When the **temperature drops 10% below its TURN ON point**, the following occurs:

- Red LED will turn OFF
- Green LED will turn ON
- Output RELAY will switch back to the CLOSED position.

Failsafe operation: If the sensor should get damaged or the wire leads going to sensor break, the following occurs:

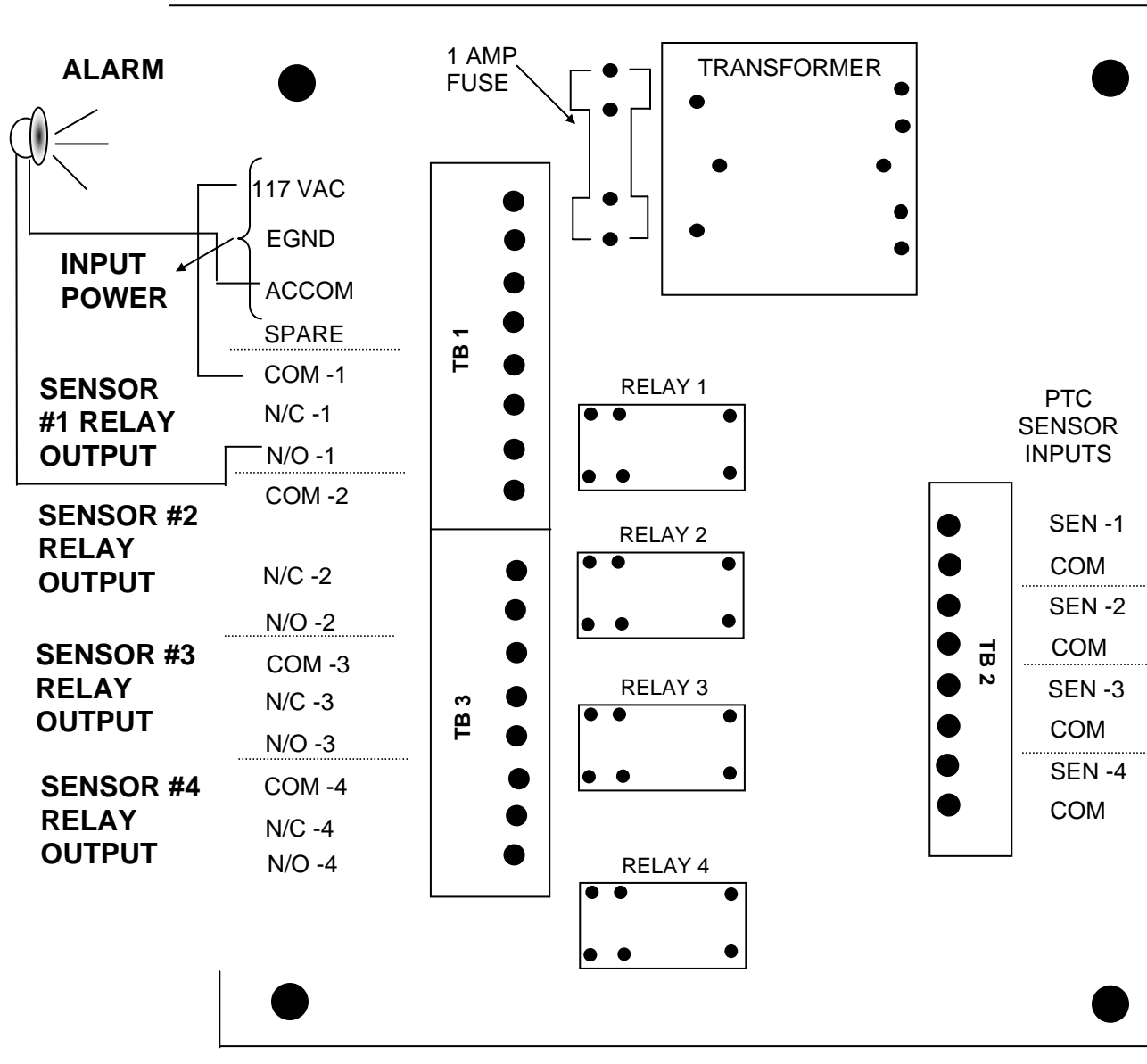
- Red LED indicator will turn ON
- Green LED will turn OFF
- Output RELAY will switch to the OPEN position.

WIRING DIAGRAMS

Figure 1

High Voltage Connections and Relay Outputs are located on TB1 and TB3.

PTC Sensor Inputs are located on TB2.



When using one 117V external alarm, jumper relay contact outputs N/O together.

OPTIONS

An optional status display can be mounted remotely in a NEMA 3-4-12 housings. The display can be mounted up to 50 feet from CPU board using a display cable. Different supply voltages are available for the SC4. Contact Maxi-Tronic for options.

SPECIFICATIONS

- Sensor Voltage – 12 volts @ 200mA Maximum
- Sensor lead runs up to 2500 feet using 16 AWG wire
- Sensor lead runs up to 500 feet using 22 AWG wire
- SC4 Supply Voltage: 117 VAC @ 1 AMP, 60 Hz. (other options available)
- Relays rated at 3 AMPS @ 117/250 VAC or 2 AMP @ 24 VDC
- Relays work in FAIL SAFE operation (Normal Operation = Relayed Energized)
- Center to Center on Mounting Holes – 6.25" x 4.25"
- P.C. Board Size – 5.25"width x 7.2" length x 1.5" height

CAUTION: DO NOT use with THERMOCOUPLE or RTD Sensors.

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