

**Model WRM
Weld Current
RMS Module**

SENSOTEC

Weld Sensor Group

2080 Arlingate Lane, Columbus, Ohio 43228 USA • (614)850-1140

Sensotec, Inc.

Weld Sensor Group

2080 Arlingate Lane

Columbus, Ohio 43228 USA

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Telephone: (614)850-1140

FAX: (614)850-1141

Toll Free: 1-800-848-6564

E-mail: sales@sensotec.com

WWW: <http://www.weldsensor.com>

Model WRM Weld Current Sensor Amplifier

Sensotec Part Number: 008-0605-00

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IMPORTANT! IT IS RECOMMENDED THAT YOU READ THIS DOCUMENT THOROUGHLY BEFORE APPLYING POWER TO THIS UNIT. THIS DOCUMENT CONTAINS INFORMATION ON WIRING, CALIBRATION, AND USE OF FEATURES.

Sensotec continually improves its products, and thus the information herein is subject to change without notice.

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Chapter 1

INTRODUCTION

1.1 Overview

The Model WRM Weld Current RMS Module (Sensotec order code AW350) is designed to be used with Sensotec sensors that are capable of measuring weld current. These products include:

- Sensotec model WT9000 WeldThru Sensor with current option
- Sensotec model WIS Weld Current Sensor

The amplifier module provides excitation to the weld current sensor and converts its output signal into an easily-measured DC voltage.

1.2 Specifications

The following specifications are applicable when the amplifier module is connected to a Sensotec Weld Current sensor.

Sensotec continually improves its products, and thus these specifications are subject to change without notice.

Power Requirements: +/- 15 VDC (+/- 0.7 VDC)

Current Sensor Excitation: 14.3 VDC

Input Range: 0 - 7 VRMS with no DC offset
(+/- 12 V peak transient)

Frequency Range: DC to 30 kHz

Input Maximum Offset: + 5 VDC

Accuracy: < 1% of reading @ 10 Hz to
30 kHz

Operating Temperature: 30 to 160 °F

Chapter 2

WIRING

2.1 Internal Arrangement

The figure below shows the internal arrangement of the Weld Current RMS Module.

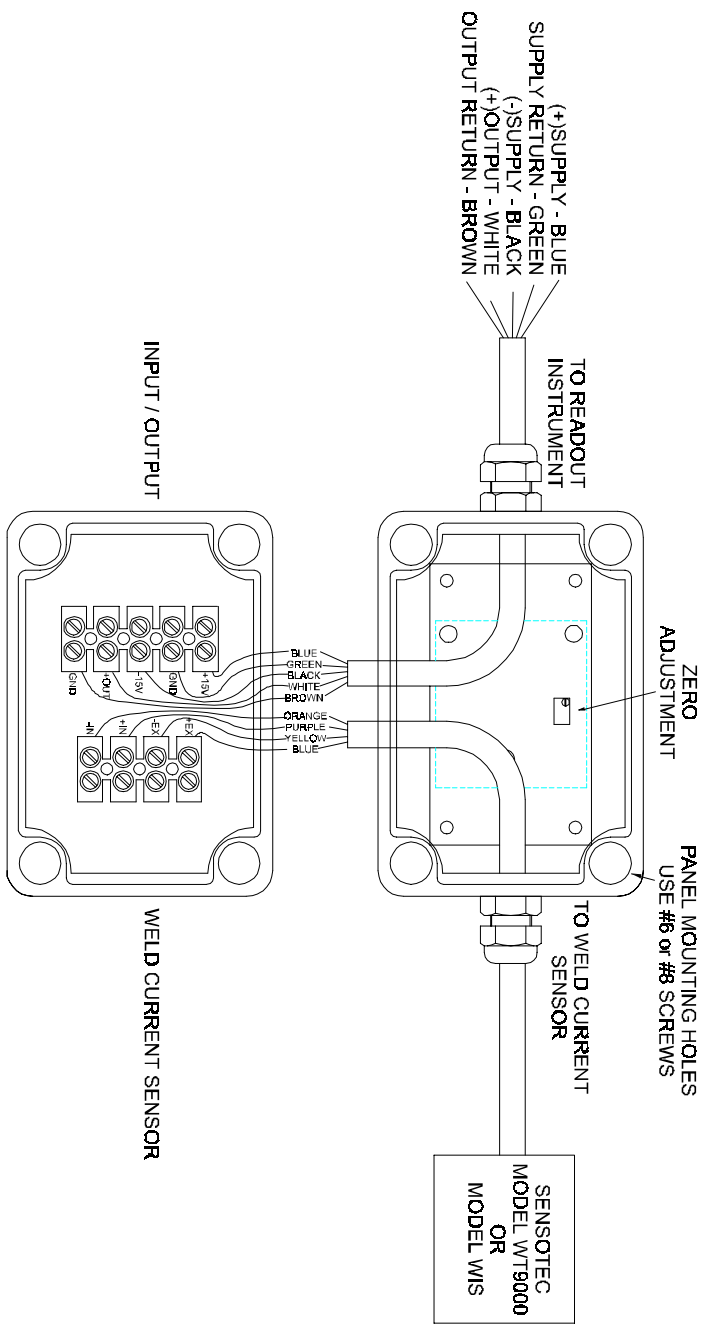


Figure 2-1: Internal Arrangement of Model WRM

2.2 Weld Sensor Connection

Using the table below, connect the amplifier to a Sensotec weld current sensor.

Table 1: Terminal Strip Wiring to Weld Sensor

terminal	function	Weld Sensor wire color
+EX	(+)Excitation	blue
-EX	(-)Excitation	yellow
+IN	(+)Input	purple
-IN	(-)Input	orange

2.3 Power Supply Connection

Connect a +/- 15 VDC power supply to the amplifier according to the table below.

Table 2: Terminal Strip Wiring to Power Supply

terminal	function
+15V	(+)Supply
GND	Supply Return
-15V	(-)Supply

If the amplifier is to be connected to a Sensotec WM9200 or WM9300 instrument, see the “Sensotec WM9200/WM9300 Connection” section in this chapter.

2.4 Instrument Connection

Connect a DC voltmeter or other readout instrument to the amplifier according to the table below.

Table 3: Terminal Strip Wiring to Instrument

terminal	function
+OUT	(+)Output
GND	Output Return

If the amplifier is to be connected to a Sensotec WM9200 or WM9300 instrument, see the “Sensotec WM9200/WM9300 Connection” section in this chapter.

2.5 Sensotec WM9200/WM9300 Connection

When using the amplifier with a Sensotec model WM9200 or WM9300 instrument, refer to the figure below for the correct wiring details.

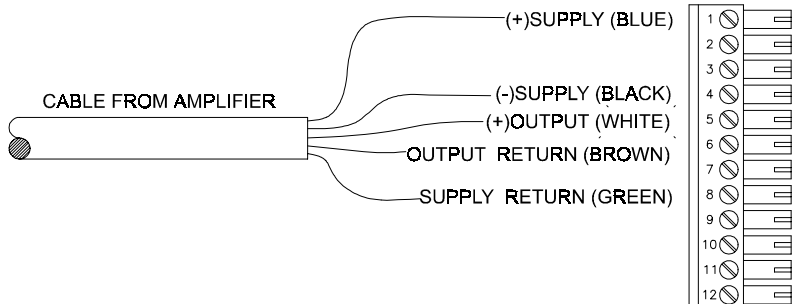


Figure 2-2: Connection to WM9000 instrument

The amplifier must be connected to a Voltage Input Card for proper operation.

Chapter 3

SETUP

Step 1. Remove the cover of the amplifier.

Step 2. Apply power to the amplifier and allow it to warm-up for one minute.

Step 3. With zero current passing through the weld current sensor, adjust the ZERO ADJUSTMENT potentiometer to indicate zero on the readout instrument or voltmeter connected to the output.

Step 4. Replace the cover.

Chapter 4

WARRANTY / REPAIR POLICY

4.1 Limited Warranty on Products

Any of our products which, under normal operating conditions, proves defective in material in workmanship within one year from the date of shipment by SENSOTEC, will be repaired or replaced free of charge provided that you obtain a return material authorization from SENSOTEC and send the defective product, transportation charges prepaid with notice of the defect, and establish that the product has been properly installed, maintained, and operated within the limits of rated and normal usage. Replacement product will be shipped F.O.B. our plant. The terms of this warranty do not extend to any product or part thereof which, under normal usage, has an inherently shorter useful life than one year. The replacement warranty detailed here is the buyer's exclusive remedy, and will satisfy all obligations of SENSOTEC whether based on contract, negligence, or otherwise. SENSOTEC is not responsible for any incidental or consequential loss or damage which might result from a failure of any SENSOTEC product. This express warranty is made in lieu of any and all other warranties, express or implied, including implied warranty of merchantability or fitness for particular purpose. Any unauthorized disassembly or attempt to repair voids this warranty.

4.2 Service Under Warranty

Advanced authorization is required prior to the return to SENSOTEC. Before returning the items, either write to the Customer Service Department c/o SENSOTEC, Inc., 2080 Arlingate Lane, Columbus, Ohio 43228, or call (800) 848-6564 with: 1) a part number; 2) a serial number for the defective product; 3) a technical description* of the defect; 4) a no-charge purchase order number (so products can be returned to you correctly); and 5) ship and bill addresses. Shipment to SENSOTEC shall be at Buyer's expense and repaired or replacement items will be shipped F.O.B. our plant in Columbus, Ohio. Non-verified problems or defects may be subject to an evaluation charge. Please return the original calibration data with the unit.

4.3 Non-Warranty Service

Advance authorization is required prior to the return to SENSOTEC. Before returning the item, either write to the Customer Service Department c/o SENSOTEC, Inc., 2080 Ringlet Lane, Columbus, Ohio 43228, or call (800) 848-6564 with: 1) a model number; 2) a serial number for the defective product; 3) a technical description* of the malfunction; 4) a purchase order number to cover SENSOTEC's repair cost; and 5) ship and bill addresses. After the product is evaluated by SENSOTEC, we will contact you to provide the estimated repair costs before proceeding. Shipment to SENSOTEC shall be at Buyer's expense and repaired items will be shipped to you F.O.B., our plant in Columbus, Ohio. Please return the original calibration data with the unit.

4.4 Repair Warranty

All repairs of SENSOTEC products are warranted for a period of 90 days from date of shipment. This warranty applies only to those items which were found defective and repaired, it does not apply to products in which no defect was found and returned as is or merely recalibrated. Out of warranty products may not be capable of being returned to the exact original specifications or dimensions.

* Technical description of the defect: In order to properly repair a product, it is necessary for SENSOTEC to receive information specifying the reason the product is being returned. Specific test data, written observations on the failure and the specific corrective action you require is needed.