



OMEGA
ENGINEERING, INC.
An OMEGA Technologies Company



PCM1/PCM2
4-20 mA
SSR Drivers



Operator's Manual



WARRANTY

OMEGA warrants this unit to be free of defects in materials and workmanship and to give satisfactory service for a period of 13 months from date of purchase. OMEGA Warranty adds an additional one (1) month grace period to the normal one (1) year product warranty to cover handling and shipping time. This ensures that our customers receive maximum coverage on each product. If the unit should malfunction, it must be returned to the factory for evaluation. Our Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective it will be repaired or replaced at no charge. However, this WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of being damaged as a result of excessive current, heat, moisture, vibration, or misuse. Components which wear or which are damaged by misuse are not warranted. These include contact points, fuses, and triacs.

THERE ARE NO WARRANTIES EXCEPT AS STATED HEREIN. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL OMEGA ENGINEERING, INC. BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES. THE BUYER'S SOLE REMEDY FOR ANY BREACH OF THIS AGREEMENT BY OMEGA ENGINEERING, INC. OR ANY BREACH OF ANY WARRANTY BY OMEGA ENGINEERING, INC. SHALL NOT EXCEED THE PURCHASE PRICE PAID BY THE PURCHASER TO OMEGA ENGINEERING, INC. FOR THE UNIT OR UNITS OR EQUIPMENT DIRECTLY AFFECTED BY SUCH BREACH.



One Omega Drive, Box 4047
Stamford, Connecticut 06907-0047

Call OMEGA Toll Free* — Use these direct lines to get the service you want!

Sales: It's Easy to Order from OMEGA! 1-800-82-66342

1-800-TC-OMEGA

For the BEST in Customer Service:

1-800-622-2378

1-800-622-BEST

WHEN You Need Engineering Support and Technical Assistance, Dial:

1-800-872-9436

1-800-USA-WHEN

*In CT: (203) 359-1660
And International

CABLE: OMEGA
TELEX: 996404

EASYLINK: 62968934
FAX: (203) 359-7700

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. That way our customers get the latest in technology and engineering.

Return Requests/Inquiries

Direct all warranty and repair requests/inquiries to OMEGA Customer Service Department, telephone number (203) 359-1660. BEFORE RETURNING ANY INSTRUMENT, PLEASE CONTACT THE OMEGA CUSTOMER SERVICE DEPARTMENT TO OBTAIN AN AUTHORIZED RETURN (AR) NUMBER. The designated AR number should then be marked on the outside of the return package.

To avoid processing delays, also please be sure to include:

1. Returnee's name, address, and phone number.
2. Model and Serial numbers.
3. Repair instructions.

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M957/0289

GENERAL DESCRIPTION

The OMEGA® PCM Series driver modules allow simple conversion of an ON/OFF Solid State Relay (SSR) to a proportional power regulator. The module mounts directly to the input terminals of the solid state relay. Screw terminals are provided on the driver module for the 4-20mA control signal. The Solid State Relay's power section connects in standard fashion to the line and load.

The PCM module plus SSR provides a rectangular shape, time proportional (zero fired) control signal to the load. Thus the average power to the load is proportional to the 4-20mA input signal.

Two models are available. Use Model PCM1 to control single phase loads. Model PCM2 comes with an additional circuit board that enables one module to fire two SSR's. Therefore, Model PCM2 can be used for 3-Phase, 3-Wire (delta) applications. To control 3-Phase, 4-Wire (Wye) loads, simply use 3 PCM1 units. Each unit is supplied with operator's manual and mounting screws.

UNPACKING

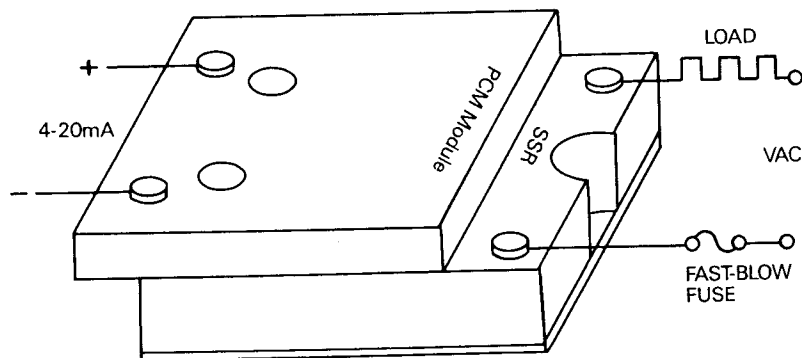
Remove the packing list and verify that all equipment has been received. If there are any questions about the shipment, please call OMEGA Customer Service Department at (203) 359-1660.

Upon receipt of the shipment, inspect the container and equipment for any signs of damage. Take particular note of any evidence of rough handling in transit. Immediately report any damage to the shipping agent.

NOTE

The carrier will not honor any claims unless all shipping material is saved for their examination. After examining and removing contents, save packing material and carton in the event reshipment is necessary.

TYPICAL APPLICATION



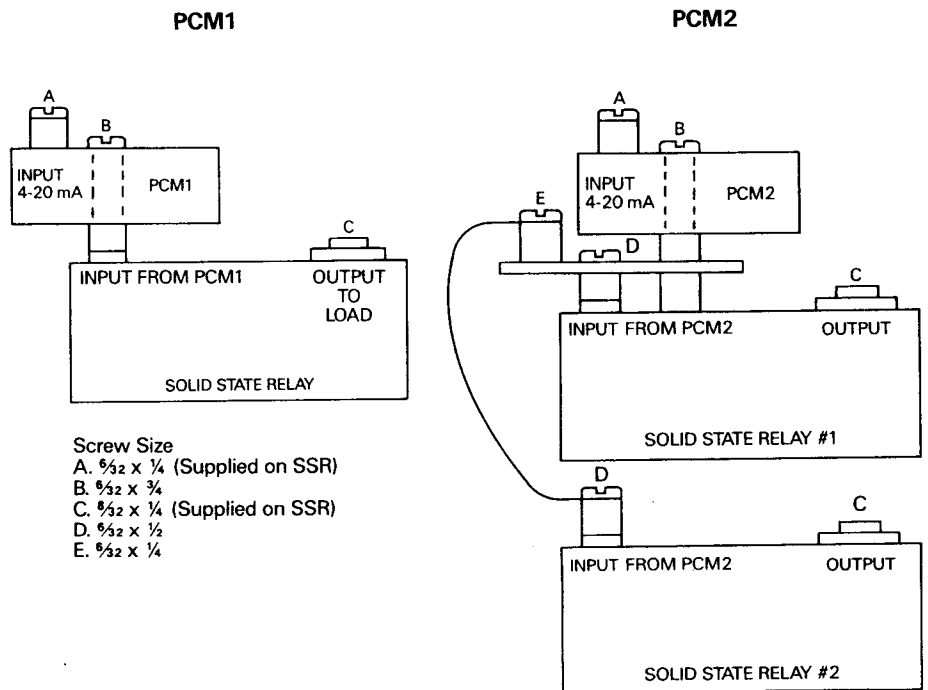
SPECIFICATIONS

ANALOG INPUT SIGNAL:	4 to 20 mA _{dc}
VOLTAGE DROP ACROSS MODULES:	PCM1—6.3V _{dc} ±10% PCM2—12 V _{dc} ±10%
AMBIENT TEMPERATURE:	32 to 104°F (0 to 40°C)

INPUT CURRENT	OUTPUT LEVEL*	CYCLE TIME
4.0mA	0%	.8 sec. .4 sec. .8 sec.
7.2mA	20%	
12.0mA	50%	
16.8mA	80%	
20.0mA	100%	

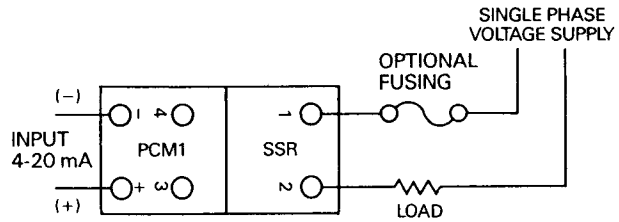
*Linearity: Output level within 2%

MOUNTING

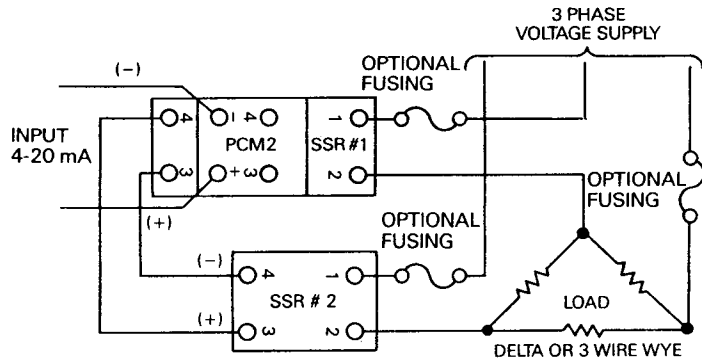


WIRING

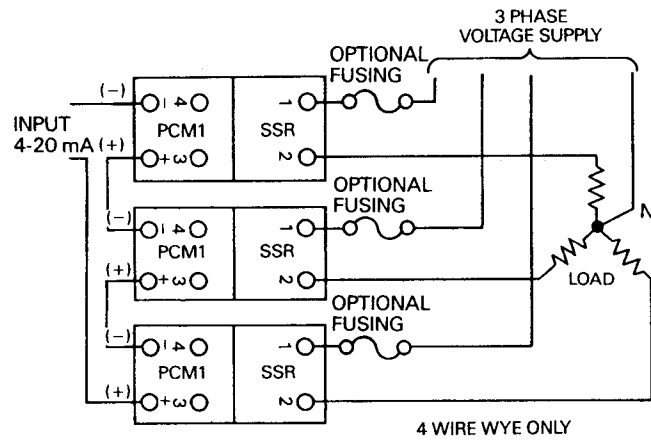
1 Phase Power Control



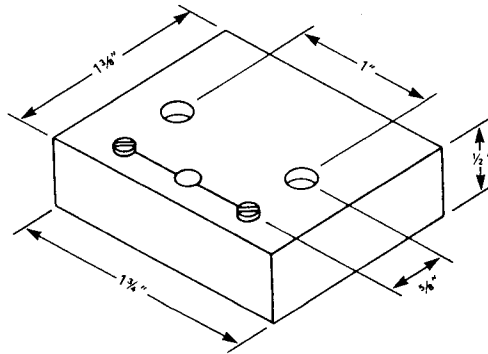
3 Phase 3 Wire Power Control



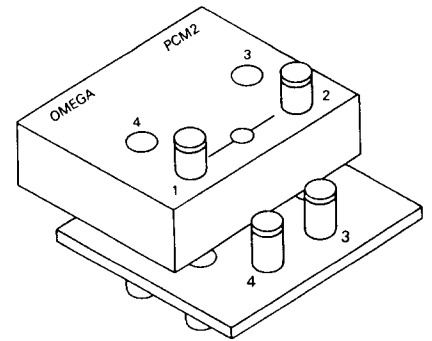
3 Phase 4 Wire Power Control



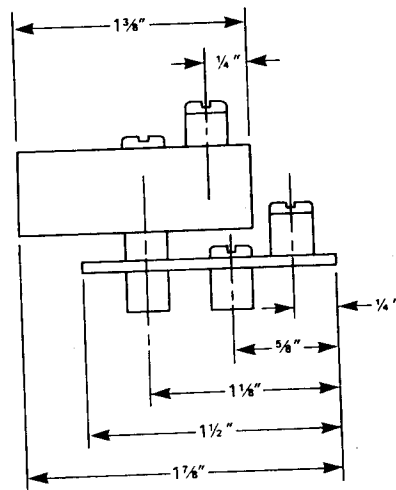
PCM1 DIMENSIONS



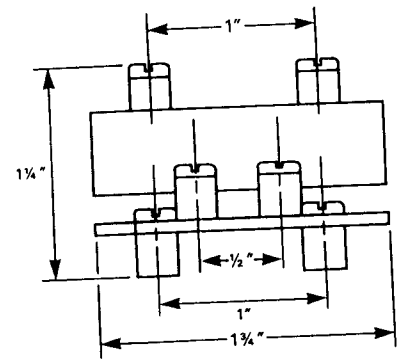
PCM2



PCM2 DIMENSIONS



(SIDE VIEW)



(SIDE VIEW)

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