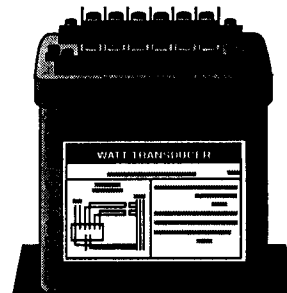




OM10 "AC POWER" SERIES

Watt Transducer
0.2% Accuracy Class

Specification Sheet M1706/1093



1. GENERAL

The Model OM10 AC Watt Transducer has an analog output equal to the Watts measured by the input.

2. SPECIFICATIONS

Input Burden	Voltage	120 VAC < 0.3 VA per element 240 VAC < 0.6 VA per element
	Current	< 0.2 VA per element
Voltage Input Range		120 V: 85 - 135 VAC, Input Powered Models 0 - 120% of Rated Input, Aux. Powered Models 240 V: 170 - 264 VAC, Input Powered Models 0 - 120% of Rated Input, Aux. Powered Models
Sustained Voltage Input Over Range		150% of Rated Input Without Damage (Auxiliary Powered Only)
Current Input		0 - 200% of Rated Input
Current Input Over Range Capability		200% Continuous 1000% for 5 Seconds
Output Calibration		120 VAC/1 AMP = 0 - 100 Watts/Element 120 VAC/5 AMP = 0 - 500 Watts/Element 240 VAC/1 AMP = 0 - 200 Watts/Element 240 VAC/5 AMP = 0 - 1000 Watts/Element
Calibration Adjustment		ZERO : ± 5% Minimum SPAN : ± 10% Minimum
Output Compliance		10 VDC for 0 - 1 mADC 15 VDC for 4 - 20 mADC
Accuracy		0 ± 1 mADC = ± 0.1% of Reading ± 0.05% of Fullscale 4 - 20 mADC = ± 0.2% of Span
Response Time		< 400 mSEC (0 to 99% of Output)
Output Ripple		± 0.5% Span, peak to peak, max.
Isolation		2500 VAC Input to Output, Power & Case 2000 VAC Power to Output & Case 500 VAC Output to Case
SWC		IEEE472 / ANSI C37.90.1 - 1989 JIS C1111 (5KV, 1.2 x 50 μSEC)
Insulation Resistance		> 10 MΩ / 500 VDC Input / Output / Power / Case
Operating Temp.		-20° to +70°C for 0-1 mADC -20° to +60°C for 4-20 mADC (-4.0° to +140°F)
Operating Humidity		0 - 90% Relative Humidity (Non-Condensing)

Temperature Effect	0 - 1mADC = ±50 ppm/ °C of Fullscale 4 - 20mADC = ±75 ppm/ °C of Span
Weight	1200 g. (2.62 lb)
External Magnetic Field	< 0.2% at 400 AT/m
Shock	< 0.2% after 50 G, 6 Axis, 3 Repetitions
Vibration	< 0.2% after 16.7 Hz, 4 mmp-p 1 HR, 3 Axis
Influence of Power Factor	< 0.2% (JIS C1111)
Influence of Unbalanced Currents	< 0.2% (JIS C1111)
Influence of Phase Interaction	< 0.2% (JIS C1111)
Influence of Frequency	< 0.25%, 45 - 65 Hz, Fundamental thru 9th Harmonic

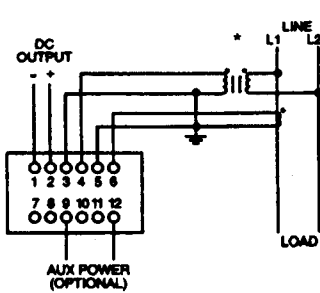
3. ORDER FORMAT OM10

Base Model	Transducer Function		Input	Input Frequency	Output
OM10	51	Watt Transducer Single Element	53 120 VAC/1 Amp	0 60 Hz	AFA 0 - 1 mADC
	53	Watt Transducer Two Element	54 120 VAC /5 Amp	1 50 Hz	AFB 0 to ± 1 mADC
	55	Watt Transducer Three Element	57 240 VAC/1 Amp	4 400 Hz	AHD 4 - 20 mADC
			58 240 VAC/5 Amp	5 Other	AHF 12 ± 8 mADC

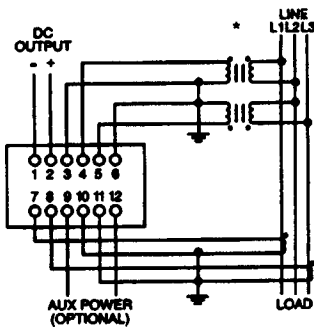
Auxiliary Power		Wiring	
0	Input Powered	0	Standard
1	85 - 135 VAC	1	Same as 2470 Series
2	170 - 264 VAC		

4. WIRING DIAGRAM

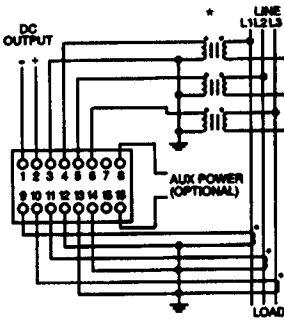
(1 Phase 2 Wire)



(3 Phase 3 Wire 2 Elements)



(3 Phase 4 Wire 3 Elements)

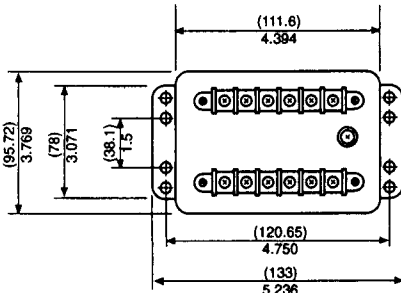


* Wiring Diagram shows optional current and potential transducers.

5. MOUNTING & OUTLINE

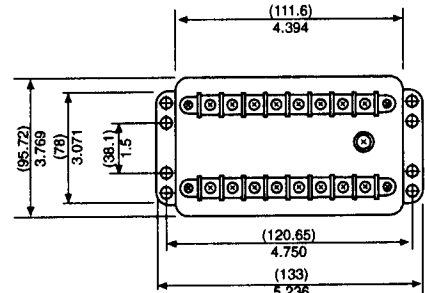
OM10-51
OM10-53

Single &
Two Element

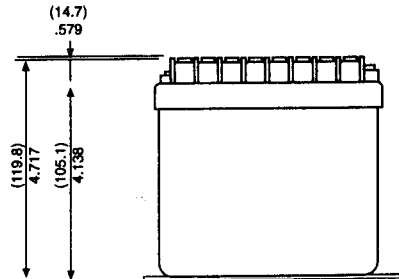
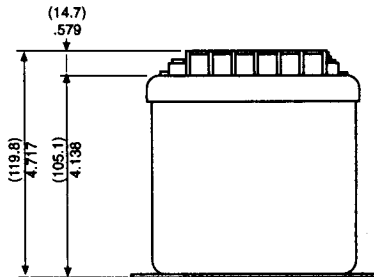


OM10-55

Three
Element



Dimensions shown in inches (mm)



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 corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components which wear or which are damaged by misuse are not warranted. These include contact points, fuses, and triacs.

We are glad to offer suggestions on the use of our various products. Nevertheless, OMEGA only warrants that the parts manufactured by it will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of buyer set forth herein are exclusive and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

Every precaution for accuracy has been taken in the preparation of this manual; however, OMEGA ENGINEERING, INC. neither assumes responsibility for any omissions or errors that may appear nor assumes liability for any damages that result from the use of the products in accordance with the information contained in the manual.

SPECIAL CONDITION: Should this equipment be used in or with any nuclear installation or activity, buyer will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the equipment in such a manner.



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Telephone: 44 (0455) 285520 FAX: 44 (0455) 283912

RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA ENGINEERING Customer Service Department. Call toll free in the USA and Canada: 1-800-822-2378, FAX: 203-359-7811; International: 203-359-1660, FAX: 203-359-7807.

BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, YOU MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OUR CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

FOR WARRANTY RETURNS, please have the following information available BEFORE contacting OMEGA:

1. P.O. number under which the product was PURCHASED.
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems you are having with the product.

FOR NON-WARRANTY REPAIRS OR CALIBRATION, consult OMEGA for current repair/calibration charges. Have the following information available BEFORE contacting OMEGA:

1. P.O. number to cover the COST of the of the repair/calibration.
2. Model and serial number of product, and
3. Repair instructions and/or specific problems you are having with the product.

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

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