

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **61 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **five (5) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's 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. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been 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 in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company 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 purchaser 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.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S 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. Purchase Order 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 relative to the product.

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

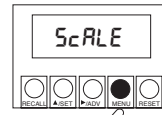
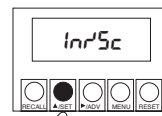
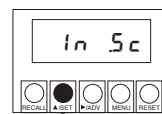
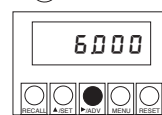



1. Purchase Order number to cover the COST of the repair or calibration,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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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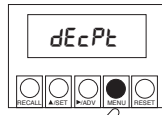
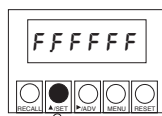
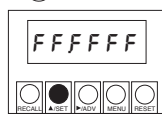

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To Change Scale Factor Value

1. Press MENU until the display shows *ScALe* .

2. Press ▲SET to show the current mathematical operation.

3. Press ▲SET to select the setting from *InrSc* or *In.Sc* .

4. Press ►ADV to show current scale factor value.

5. Press ►ADV to select the digit you want to change.

6. Press ▲SET to increase the value of the flashing digit.

7. Press MENU to store the value into volatile memory.


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To Change the Decimal Point Position:

1. Press MENU until the display shows *dEcPt* .

2. Press ▲SET to show the current location of the decimal point.

3. Press ▲SET to move the decimal point to the right. Continue to press ▲SET until the meter displays *Flt0* for auto ranging.

4. Press MENU to store the decimal point into volatile memory.


It is the policy of OMEGA to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives.

! This device is marked with the international caution symbol. It is important to read the Setup Guide before installing or commissioning this device as it contains important information relating to safety and EMC.

WARNING: These products are not designed for use in, and should not be used for, patient connected applications.

The information contained in this document is believed to be correct but OMEGA Engineering, Inc. accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

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**DPF700
 Low-Cost Ratemeter/
 Totalizer/Controller**

OMEGA™
 omega.com info@omega.com

U.S.A. Headquarters:
 Omega Engineering, Inc.
 Toll-Free: 1-800-826-6342 (USA & Canada only)
 Customer Service: 1-800-622-2378 (USA & Canada only)
 Engineering Service: 1-800-872-9436 (USA & Canada only)
 Tel: (203) 359-1660 Fax: (203) 359-7700
 e-mail: info@omega.com

For Other Locations Visit omega.com/worldwide

Using this Quick Reference

Use this Quick Reference with your controller for information on wiring and to make changes to the operating mode, scale factor, and decimal point position. For detailed instructions, refer to the appropriate section in the Reference Manual.

Safety Consideration

! This device is marked with the international "Caution, risk of danger" symbol.

The instrument is a panel mount device protected in accordance with EN61010-1 (Safety requirements for electrical equipment for measurement, control, and laboratory standard). Remember that the unit has no power-on switch. Building installation should include a switch or circuit-breaker that must be compliant to IEC 947-1 and 947-3.

SAFETY:

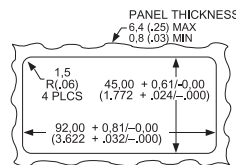
- Do not exceed voltage rating on the label located on the top of the instrument housing.
- Always disconnect power before changing signal and power connections.
- Do not use this instrument on a work bench without its case for safety reasons.
- Do not operate this instrument in flammable or explosive atmospheres.
- Do not expose this instrument to rain or moisture.

EMC:

- Whenever EMC is an issue, always use shielded cables.
- Never run signal and power wires in the same conduit.
- Use signal wire connections with twisted-pair cables.
- Install Ferrite Bead(s) on signal wire close to the instrument if EMC problems persist.

Wiring

- Remove the panel at the back of the unit.
- Locate the TB1 connector.
- Insert the correct wire in each terminal as shown in the following figure and tighten the lockdown screws.
- Tug gently on the wires to verify the connections.



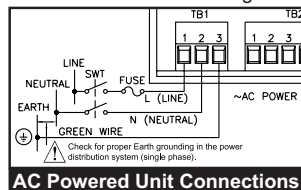
! **CAUTION: Do not connect AC power to your device until you have completed all input and output connections. This device must only be installed by a specially trained electrician with corresponding qualifications. Failure to follow all instructions and warnings may result in injury!**

Mount the Unit

- Cut a panel opening using the dimensions shown to the right.
- Position the unit in the opening, making sure the front bezel is flush with the panel.
- Install retaining clips on both sides of the meter and tighten against the panel.

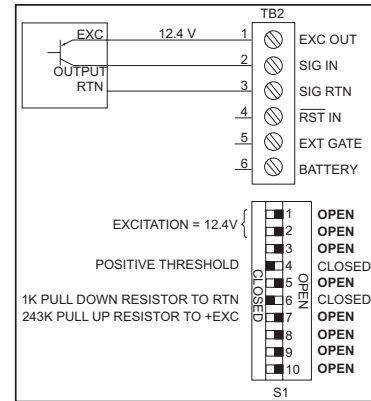
External Fuse Required:

- Time-delay, UL 248-14 listed
 - 125 mA (115 Vac line)
 - 63 mA (230 Vac line)
- Time-lag, IEC 127-2 recognized
 - 100 mA (115 Vac line)
 - 50 mA (230 Vac line)

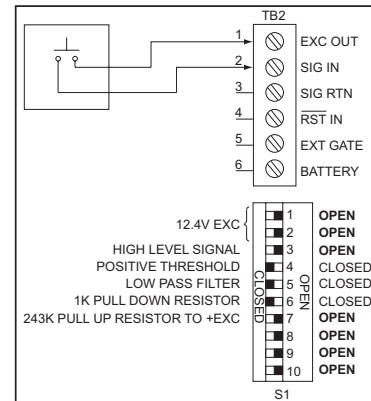


AC Powered Unit Connections

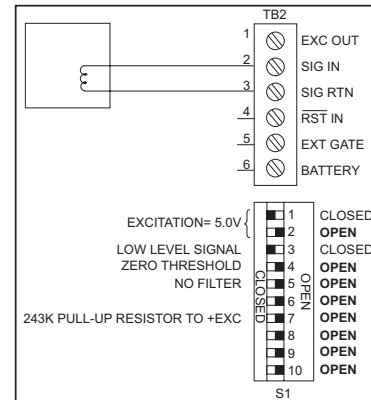
Wiring Examples



3-Wire Sensor Open Collector (PNP)



2-Wire Contact Closure



2-Wire Magnetic Pickup

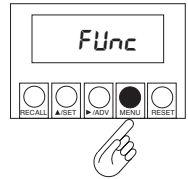
Note For complete wiring information on all setup options, please refer to the Operator's Manual.

Using the Menus

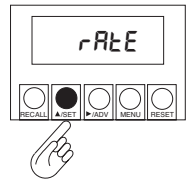
Menu Prompt	Menu Item	Prompt is starting point:
<i>FUnc</i>	Function	to select rate or totalize mode.
<i>ScALe</i>	Scale Factor	to select scale factor as a divider or multiplier and to enter scale factor value.
<i>oFFSEt</i>	Offset Value	to select offset value. Reading on meter = $input \times scale + offset$
<i>dEc Pt</i>	Decimal Point	to select position of decimal point in the digital display.
<i>SP Lo</i> <i>SP hi</i>	Setpoints Low and High	to enter setpoints. Shows only if the relay option board is installed.
<i>conF IG</i>	Configuration	to program internal software switches to specify analog, output, RS-232 input or alarm conditions
<i>Rn Lo</i>	Analog Low	to obtain reading for low analog output.
<i>Rn hi</i>	Analog High	to obtain reading for high analog output.
<i>noStor</i>	No Store	to save to the volatile (active) memory
<i>StorE</i>	Store	to save to the non-volatile (permanent) memory.

To Select Operating Mode (Rate or Total):

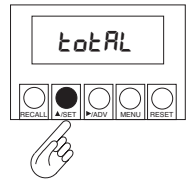
- Press MENU until the display shows *FUnc*.



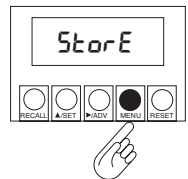
- Press ▲SET to show the current mode.



- Press ▲SET to select between *rALe* and *totAL*.



- Press MENU to store the mode into volatile memory.



To store the operating mode (or any value) into non-volatile memory:

- Press MENU until the meter displays *noStor*.
- Press ▲SET once to display *StorE*.
- Press MENU again.

The value is stored in non-volatile memory.