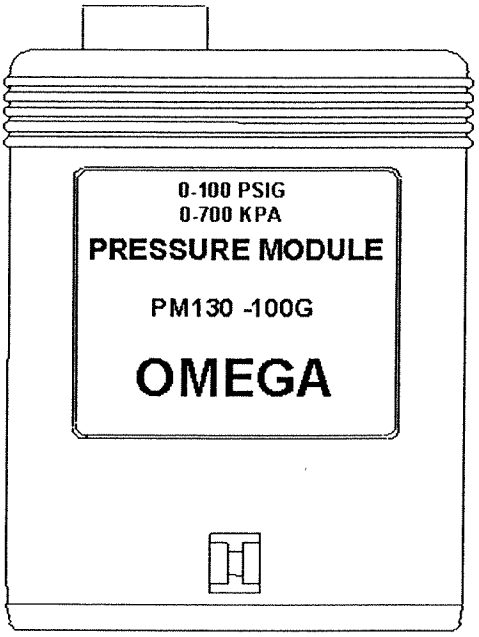

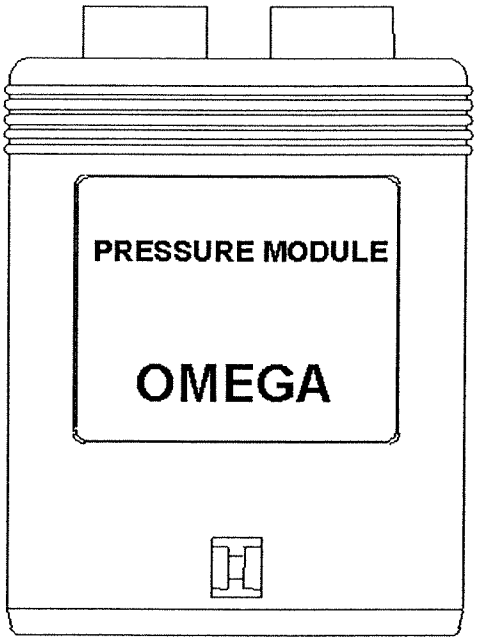

User's Guide

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MADE IN USA

CE

PM-130
Pressure Module

OPERATING INSTRUCTIONS

Safety Considerations

- It is imperative that all system pressure is relieved prior to making any connections or disconnections. Failure to relieve system pressure could result in serious personal injury and/or equipment damage.
- Always exercise standard physical protection practices (i.e., eye protection, gloves, protective clothing, etc.) when working around pressure devices.

Connections

Connect the Model PCL-100 to the line or device under test via the pressure input port(s) at the top of the case. External air supply fittings must be installed in the pressure input port(s) bulkhead fitting. This is a 1/8"-27 NPT female thread.

To install the fitting:

1) Wrap the supply fitting threads with two turns of Teflon tape.

2) Securely tighten the supply fitting. Use a 5/8" open-end wrench on the input port to prevent it from rotating while the supply fitting is being tightened.

Operating Modes

- **Pressure Measurement mode:** The PM130 pressure module plugs into a PCL130-MH Module Holder which provides an electrical connection to an Omega PCL-130 Process Calibrator.
- **Connections:** Refer to the calibrator manual for additional operation instructions and connection diagrams.

Basic Maintenance

- **Cleaning:** If the unit has been exposed to chemicals that might harden, it is advisable to clean the pressure port with alcohol or another appropriate solvent. Great care must be taken to avoid damage to the internal sensor diaphragm.
- The lower pressure range sensors (300 PSI and below) have an internal CPC pressure fitting in the bottom of the module. If these modules fail to provide a bubble tight connection, it is advised to check this fitting. This can be done by pushing up on the white plastic ring to ensure that the fitting is internally sealed. If this procedure does not repair the leak, the module might have to be returned for service.

Calibration

- The QuikCal 90 modules must be sent back to Omega if temperature characterized recalibration is desired. This type of recalibration is required to guarantee the specifications of the module across the entire operating temperature range. Recalibration at a single temperature may be performed at any qualified calibration laboratory provided they have a Transmation QuikCal™ Model 190. A verification of pressure accuracy, without adjustment, may be accomplished using a deadweight tester.

Ranges/Resolution

Engineering Units	0 to 5 PSI		0 to 10 PSI		0 to 30 PSI		0 to 100 PSI	
	Max Rdg	Resolution	Max Rdg	Resolution	Max Rdg	Resolution	Max Rdg	Resolution
PSI	5.0000	.0001	10.000	.001	30.000	.001	100.00	.01
pa	34474	1	68948	1	99999	1	99999	1
Kpa	34.474	.001	68.948	.001	206.84	.01	689.48	.01
Mpa	0.0344	.0001	0.0689	.0001	0.2068	.0001	0.6894	.0001
Bar	0.3447	.0001	0.6894	.0001	2.068	.0001	6.8948	.0001
mBar	344.74	.01	689.48	.01	2068.4	.1	6894.8	.1
Atm	0.3402	.0001	0.6804	.0001	2.0414	.0001	6.8046	.0001
Kgf/cm2	0.3515	.0001	0.7030	.0001	2.1092	.0001	7.0307	.0001
torr	258.57	.01	517.15	.01	999.99	.01	5171.5	.1
mm Hg @ 0°C/32°F	258.27	.01	517.15	.01	999.99	.01	5171.5	.1
in Hg @0°C/32°F	10.180	.001	20.360	.001	61.081	.001	203.60	.01
in Hg @15°C/60°F	10.208	.001	20.418	.001	61.253	.001	204.18	.01
in H2O @ 4°C/39.2°F	138.40	.01	276.80	.01	830.40	.01	2768.0	.1
in H2O @ 15°C/60°F	138.53	.01	277.07	.01	831.22	.01	2770.7	.1
in H2O @ 20°C/68°F	138.64	.01	277.30	.01	831.89	.01	2773.0	.1
in H2O @ 23°C/73.4°F	138.74	.01	277.48	.01	832.45	.01	2774.8	.1
mm H2O @ 4°C/39.2°F	3515.3	.1	7030.7	.1	21092	1	70307	1
mm H2O @ 23°C/73.4°F	3524.0	.1	7048.1	.1	21144	1	70481	1
cm H2O @ 4°C/39.2°F	351.53	.01	703.07	.01	2109.2	.1	7030.7	.1
cm H2O @ 23°C/73.4°F	352.40	.01	704.81	.01	2114.4	.1	7048.1	.1

Engineering Units	0 to 300 PSI		0 to 500 PSI		0 to 1000 PSI		0 to 2500 PSI	
	Max Rdg	Resolution	Max Rdg	Resolution	Max Rdg	Resolution	Max Rdg	Resolution
PSI	300.00	.01	500.00	.01	999.99	.01	2500.0	.1
pa	99990	10	99990	10	99900	100	99900	100
Kpa	2068.4	.1	3447.4	.1	6894.8	.1	9999.9	.1
Mpa	2.0684	.0001	3.4474	.0001	6.8948	.0001	17.236	.001
Bar	20.684	.001	34.474	.001	68.948	.001	172.36	.001
mBar	20684	1	34474	1	68948	1	99999	1
Atm	20.414	.001	34.023	.001	68.046	.001	170.11	.01
Kgf/cm2	21.092	.001	35.153	.001	70.307	.001	175.76	.01
torr	9999.9	.1	25857	1	51715	1	99999	1
mm Hg @ 0°C/32°F	9999.9	.1	25857	1	51715	1	99999	1
in Hg @0°C/32°F	610.81	.01	999.99	.01	2036.0	.01	5090.1	.1
in Hg @15°C/60°F	612.53	.01	999.99	.01	2041.8	.1	5104.4	.1
in H2O @ 4°C/39.2°F	8304.0	.1	9999.9	.1	27680	1	69200	1
in H2O @ 15°C/60°F	8312.2	.1	9999.9	.1	27707	1	69268	1
in H2O @ 20°C/68°F	8318.9	.1	9999.9	.1	27730	1	69324	1
in H2O @ 23°C/73.4°F	8324.5	.1	9999.9	.1	27748	1	69371	1
mm H2O @ 4°C/39.2°F	99999	1	99999	1	99990	10	99990	10
mm H2O @ 23°C/73.4°F	99999	1	99999	1	99990	10	99990	10
cm H2O @ 4°C/39.2°F	21092	1	35153	1	70307	1	99999	1
cm H2O @ 23°C/73.4°F	21144	1	35240	1	70481	1	99999	1

Accuracy

Accuracy:

5 PSI ±(0.025% Rdg +0.0005 PSI)
10 PSI ±(0.025% Rdg +0.0009 PSI)
30 PSI ±(0.025% Rdg +0.003 PSI)
100 PSI±(0.025% Rdg +0.009 PSI)
300 PSI±(0.025% Rdg +0.03 PSI)
500 PSI±(0.025% Rdg +0.05 PSI)
1000 PSI ±(0.025% Rdg +0.1 PSI)
2500 PSI ±(0.025% Rdg +0.25 PSI)

Operating Temperature: -10°C to 50°C (13°F to 122°F)
Storage Temperature: -40°C to 85°C (-40°F to 185°F)
Size: (HWD) 73mm x 58mm x 48mm (2.875" x 2.375" x 2.0")
Weight: 0.4 kg (14.5 oz.)
Power: Powered by Calibrator
Temp. Effect: None, (Compensated over full range)
Connections: 1/8" NPT Female
Pressure Media: 316 SS compatible

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **37 months** from date of purchase. OMEGA Warranty adds an additional one (1) month grace period to the normal **three (3) years product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit should malfunction, 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 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 are not warranted, including but 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 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 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.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

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 relative to the product.

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

1. P.O. number to cover the COST of the repair,
2. Model and serial number of 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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Customer Service: 1-800-622-2378 / 1-800-622-BEST℠
Engineering Service: 1-800-872-9436 / 1-800-USA-WHEN℠
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FAX: 44 (161) 777-6622
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