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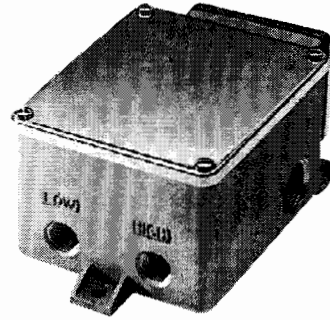
**PX653, PX654, PX655,  
PX656, PX657**

**PRESSURE TRANSDUCER**

**INSTRUCTION  
SHEET**

**M1436-0506**

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PX654, PX656



PX653, PX655

**COMMON SPECIFICATIONS FOR ALL UNITS**

Accuracy:	±0.50% FS (BFSL)	Static Pressure:	PX653, PX655	25 PSI
(Based on best fit straight line, although NIST cal. sheet is based on terminal point, therefore NIST cal. sheet could report a max. accuracy of 0.5% TP.)		PX654, PX656	100 PSI	
Linearity:	±0.30% FS (BFSL)	Process Media	Clean, dry clean non-corrosive gases	
Hysteresis:	±0.02% FS	Thermal Effects:		
Repeatability:	±0.05% FS	Zero:	PX653 ±0.015% FS/°F PX654 ±0.02%	
Operating Temp.:		Span:	PX655 ±0.015% FS/°F PX656 ±0.02%	
PX653, PX655:	-20° to 160°F (-29° to 72°C)	Gage Type	Capacitance	
PX654, PX656:	-20° to 185°F (-29° to 85°C)	Response Time	250 ms	
Compensated Temp.:		Enclosure:		
PX653, PX655:	35° to 135°F (2° to 57°C)	PX653, PX655	NEMA 2	
PX654, PX656:	0° to 160°F (-18° to 72°C)	PX654, PX656	NEMA 4X	
Storage Temp.:		Pressure Port:		
PX653, PX655:	-40 to 180°F	PX653, PX655:	¼ barbed fittings	
PX654, PX656:	-40 to 210°F	PX654, PX656:	¼ NPTF	
Proof Pressure:		Electrical Connection	Screw terminal	
Burst Pressure:	PX655 { 25 PSIS PX656 { 50 PSIS	PX654, PX656	Two 1/2 NPTF conduit	

**PX653 & PX654 (VOLTAGE OUTPUT)**

EXCITATION:	12-36Vdc
OUTPUT:	1-5Vdc
SUPPLY CURRENT:	<5mA
WEIGHT:	
PX653:	14 oz. (397 g)
PX654:	2.1 lb. (955 g)

**PX655 & PX656 (CURRENT OUTPUT)**

EXCITATION:	12-36Vdc
OUTPUT:	4-20mA (2 wire)
MAX. LOOP RES.:	(supply voltage -12) x 50 ohms
WEIGHT:	
PX655:	14 oz. (397 g)
PX656:	2.1 lb. (955 g)

**HANDLING PRECAUTIONS**

This sensor has a high insulation resistance. It can be damaged when exposed to high static discharges. Good instrumentation grounding practices should be used during handling, testing and installation.

**CALIBRATION REPORT**

All models are tested to meet or exceed the published specifications. Calibration testing was performed using NIST traceable instrumentation. All sensors come calibrated. **DO NOT ATTEMPT TO RECALIBRATE SENSOR, UNLESS YOU HAVE A KNOWN PRESSURE SOURCE THAT IS AT LEAST 5 TIMES MORE ACCURATE THAN THE SENSOR.**

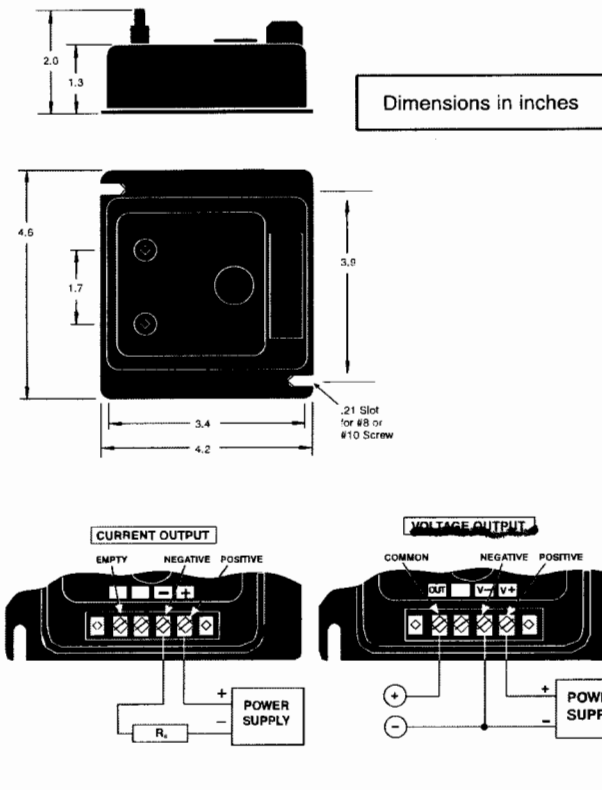
**WARNING! READ BEFORE INSTALLATION**

Fluid hammer and surges can destroy any pressure transducer and must always be avoided. A pressure snubber should be installed to eliminate the damaging hammer effects. Fluid hammer occurs when a liquid flow is suddenly stopped, as with quick closing solenoid valves. Surges occur when flow is suddenly begun, as when pump is turned on to full power or a valve is quickly opened.

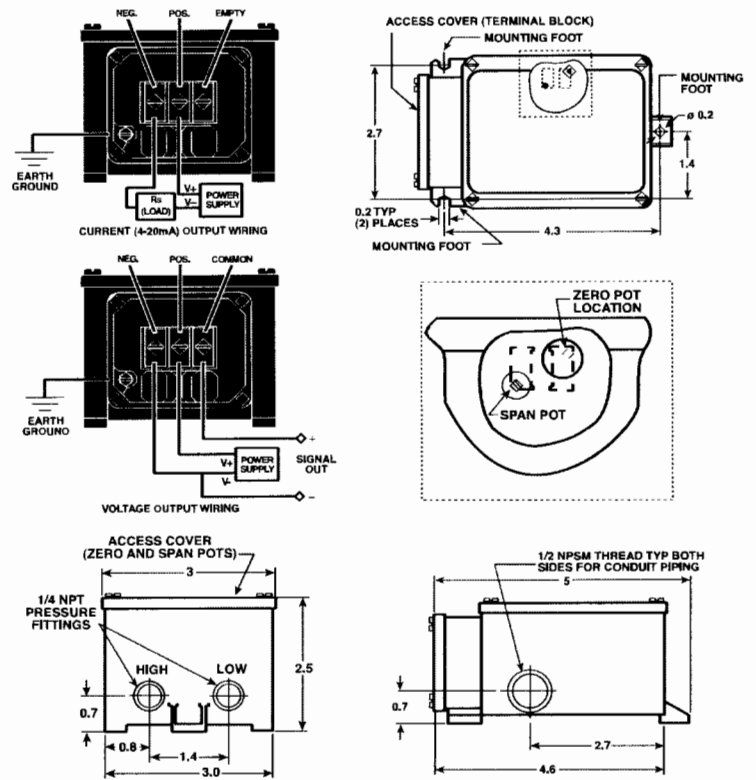
Symptoms of fluid hammer and surge's damaging effects:

1. Pressure transducer exhibits an output at zero pressure (large zero offset). If zero offset is less than 10% FS, user can usually re-zero meter, install proper snubber and continue monitoring pressures.
2. Pressure transducer output remains constant regardless of pressure.
3. In severe cases, there will be no output.

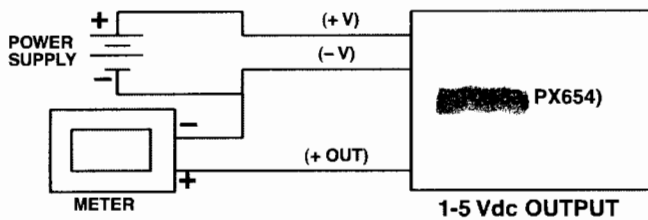
## PX653, PX655



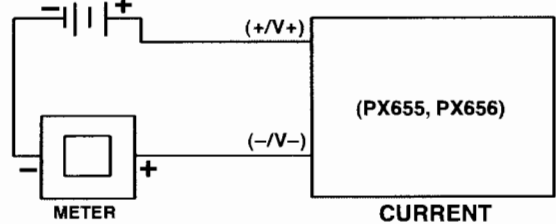
## PX654, PX656



## WIRING



## POWER SUPPLY



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## WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's 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 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.

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## 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. 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.

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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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,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.