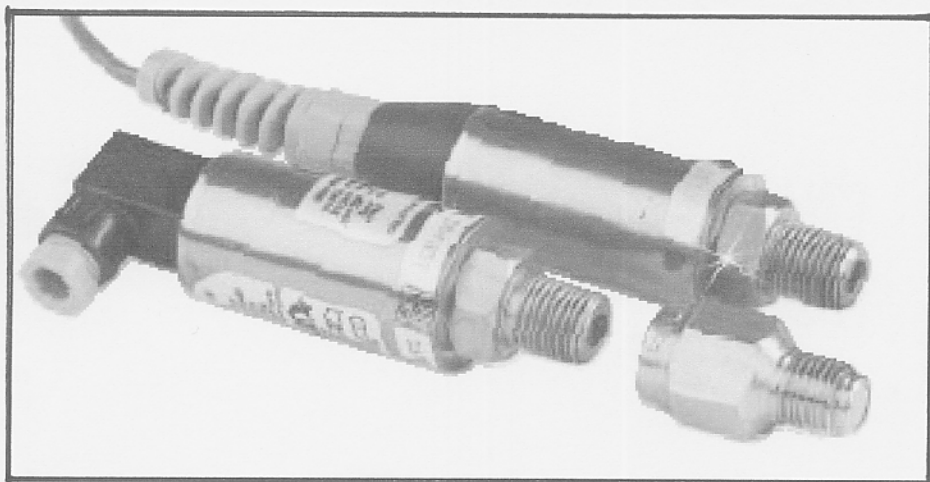




User's Guide



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PX202, PX203, PX205, PX212, PX213, PX215
Pressure Transducers



Please Note: The PX202, PX203, PX205, PX212, PX213 & PX215 series are designed and manufactured in accordance with sound engineering practice as defined by the Pressure Equipment Directive 97/23/EC. This product must not be used as a "safety accessory" as defined by the Pressure Equipment Directive, Article 1, Paragraph 2.1.3. The CE Mark on the unit does not relate to the Pressure Equipment Directive.

COMMON SPECIFICATIONS FOR ALL UNITS

ACCURACY: 0.25% (Linearity, Hysteresis and Repeatability)	PROOF PRESSURE: 150%
ZERO BALANCE: 1% FS	RESPONSE TIME: 1 msec
COMPENSATED TEMP: -4° to 176°F (-20° to 80° C)	GAGE TYPE: Chemical vapor deposited polysilicon strain gages reverse polarity protected
THERMAL EFFECTS: 1.5% FS over -20° to 80°C	ELECTRICAL CONNECTION: Miniature DIN conn screw terminals or 36" pigtail
VIBRATION: Withstands 35g peak, 5 to 2000Hz	WETTED PARTS: 17-4SS
PRESSURE PORT: ¼-18 NPT	CASE: Stainless Steel
BURST PRESSURE: 400%, 17000 PSI max.	FATIGUE: 100 million cycles FS
	WEIGHT: 3.5 oz (100 gm)

PX202, PX215 SERIES
MILLIVOLT OUTPUT

EXCITATION:	10V d.c, 15V d.c. max
OUTPUT:	100mV ±1mV
OPERATING TEMP:	-40° to 257°F (-40° to 125°C)
INPUT RESISTANCE:	2.5k to 6kΩ
OUTPUT RESISTANCE:	1.2 to 4.3kΩ
WIRING:	+EXC Red/Pin 1 +SIG White/Pin 2 -SIG Green/Pin 3 -EXC Black/Pin 4

PX203, PX213 SERIES
VOLTAGE INPUT

EXCITATION:	24V d.c @ 15mA (7-35V d.c.)
OUTPUT:	0.5 – 535V d.c.
SPAN:	5V d.c. ±50mV
OPERATING TEMP:	-40° to 257°F (-40° to 125°C)
OUTPUT RESISTANCE:	100Ω
WIRING:	+EXC Red/Pin 1 COMMON Black/Pin 2 +OUT White/Pin 3 EARTH Drain/Pin 4

PX205, PX215 SERIES
CURRENT OUTPUT

EXCITATION:	24V d.c (7-35V d.c.) Reverse polarity protected
OUTPUT:	4-20mA (2-wire)
OPERATING TEMPERATURE:	-40° to 257°F (-40° to 125°C)
SPAN TOLERANCE:	1% FS
MAX. LOOP RESISTANCE:	50x (supply voltage -7) Ω
WIRING:	+ Red/Pin 1 - Black/Pin 2 EARTH Drain/Pin 4

WIRING DIN CONNECTOR

To access the terminals inside the DIN connector process as follows:

1. Remove the screw at the top of the connector.
2. Separate the DIN connector from the transducer
3. Insert a small blade screwdriver in the slot provided and pry the DIN connector apart
4. After wiring the terminals, snap the DIN connector back together,
5. Mount the DIN connector to the transducer (using the rubber gasket in between), observing the blade orientations.
6. Insert the screw at the top of the DIN connector and tighten.

WARNING! READ BEFORE INSTALLATION

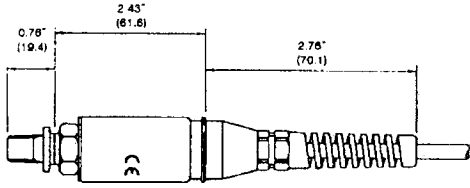
Fluid hammer and surges can destroy any pressure transducer and must always be avoided. A pressure snubber should be installed to eliminate the damaging hammer effects. Fluid hammer occurs when a liquid flow is suddenly stopped, as with quick closing solenoid valves. Surges occur when flow is suddenly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

Liquid surges are particularly damaging to pressure transducers if the pipe is originally empty. To avoid damaging surges, fluid lines should remain full (if possible), pumps should be brought up to power slowly and valve opened slowly. To avoid damage from both fluid hammer and surges, a surge chamber should be installed, and a pressure snubber should be installed on every transducer.

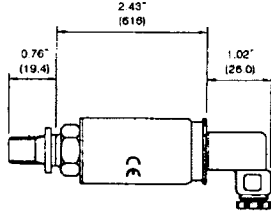
Symptoms of fluid hammer and surge's damaging effects:

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.

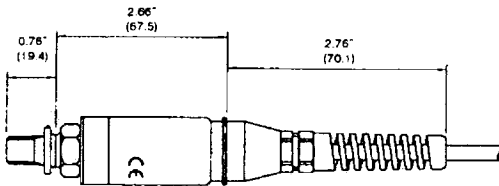
DIMENSIONS



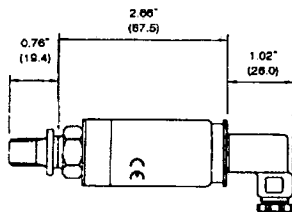
PX202



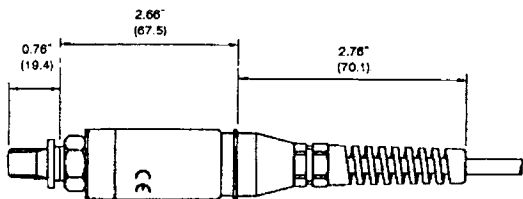
PX212



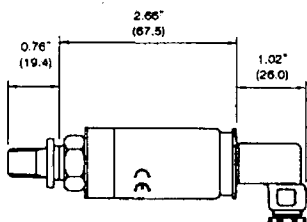
PX203



PX213

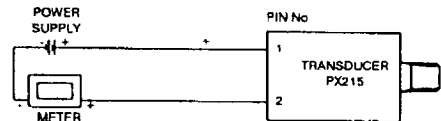
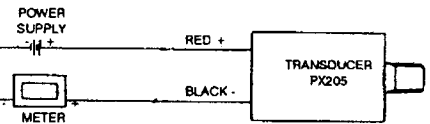
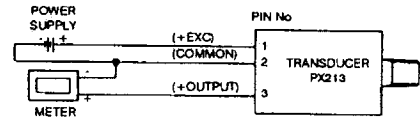
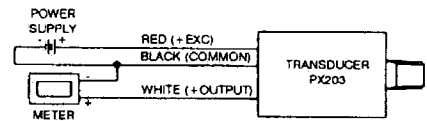
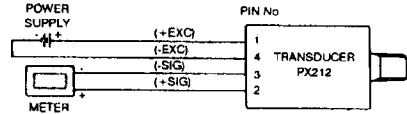
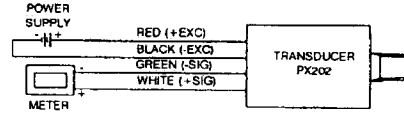


PX205



PX215

WIRING





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

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 which wear are not warranted, including but 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.

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.

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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