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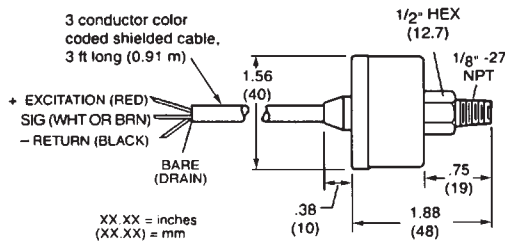
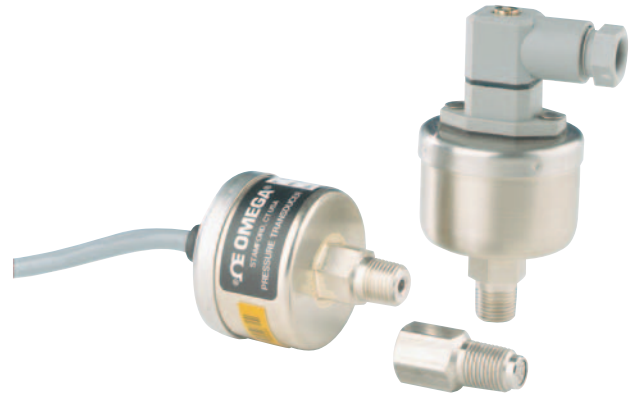
PX176/PX177 Series

Pressure Transducer

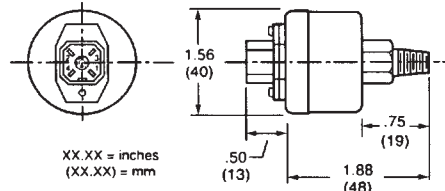
**INSTRUCTION
SHEET**

M0213/1008

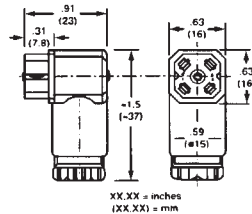
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PX176/PX177 with cable



PX176/PX177 with Hirschmann Connector



Common Specifications For All Units

Accuracy: 1% FS (includes repeatability, linearity BFSL, and hysteresis)

Proof Pressure: 2x FS < or = 300 psi

Pressure: 1.5 FS > or = 500 psi

Burst Pressure: 20x FS < or = 25 psi

Pressure: 10x FS < or = 200 psi

5x FS > or = 500 psi range

Response Time: 50 Hx

Wetted Parts: Brazed assembly of 300 series SS

Pressure Port: 1/8 NPT

Weight: 3/8 UNF optional on 5000 psi units
4 oz.

PX176 Series Voltage Output Specifications

Excitation:	9-20 Vdc @ 15 mA (reverse polarity protected)
Output:	1-6 Vdc
Zero Balance:	1 ± 0.15 Vdc
Span	
Tolerance:	5 ± 0.1 Vdc
Operating Temp:	-67 to 221° F -55 to 105° C
Compensated Temp:	30 to 185° F -1 to 85° C
Temp Effects:	Zero 1% FS per 100° F change Span 1% FS per 100° F change
Shock Resistance:	50 g's peak @ 5 ms
Electrical Connection:	3 cond shield pigtail leads 3 ft long with drain lead or Hirschmann Connector
Wiring:	Red or Pin #4 White or brown or Pin #2 Black or Pin #3

PX177 Series Voltage Output Specifications

Excitation:	12 to 45 Vdc (reverse polarity protected) linear derating to 35 Vdc from 77° F to 212° F
Output:	4-20 mA
Zero Balance:	4 ± 0.4 mA
Span	
Tolerance:	16 ± 0.32 mA
Operating Temp:	0 to 212° F -18 to 100° C
Compensated Temp:	30 to 130° F -1 to 54° C
Temp Effects:	Zero 1% FS Span 1% FS
Shock Resistance:	50 g's peak @ 5 ms
Electrical Connection:	2 cond 22 AWG shield pigtail leads 3 ft long with drain lead or Hirschmann Connector
Wiring:	Red or Pin #1 Black or Pin #2

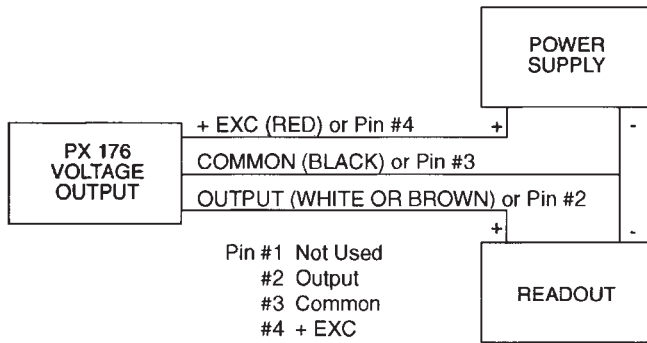
PRECAUTIONS

- Do not use the case of the unit to apply torque to make or break the pressure connection. Always use a wrench on the hex head directly behind the threaded port.
- Do not subject the transducer to high temperature as a result of soldering, brazing, or welding of the system plumbing. In high humidity environments where condensation may occur, mount the transducer so that the connector attaches from the bottom or side. This prevents creating a moisture trap.
- Guard against subjecting the unit to temperatures above its specified maximum during operation.

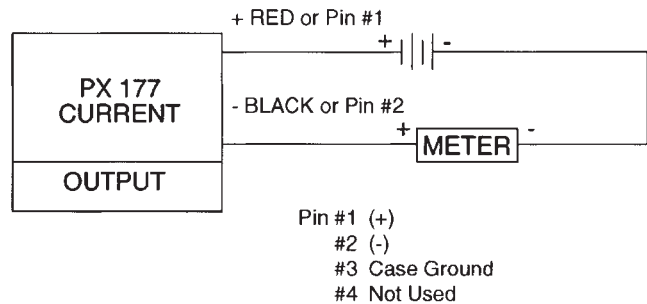
! WARNING – Read Before Installation !

- Fluid hammer and surges can destroy any pressure transducer and must always be avoided. Install a pressure snubber 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, keep fluid lines full (if possible), bring pumps up to power slowly, and open valves slowly. To avoid damage from both fluid hammer and surges, install a surge chamber and a pressure snubber on every transducer.
- Symptoms of fluid hammer and surge's damaging effects:
 - a) Pressure transducer exhibits an output at zero pressure (large zero offset). If zero offset is less than 10% FS, you can usually rezero the meter, install the proper snubber and continue monitoring pressures.
 - b) Pressure transducer output remains constant regardless of pressure.
 - c) In severe cases, there will be no output.

WIRING - PX176 SERIES



WIRING - PX177 SERIES



NOTE: Parts with "-C" suffix have a connector. Spare mating connector part number: PX176-Connector or PX177-Connector.



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WARRANTY / DISCLAIMER

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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.

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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