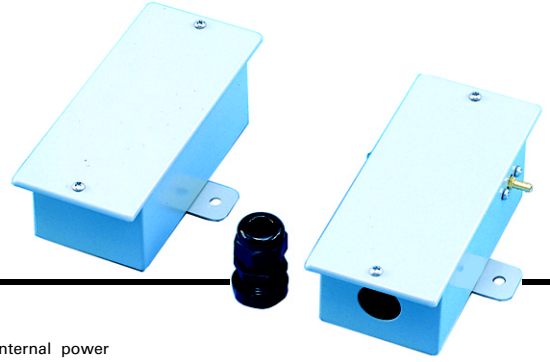


Pneumatic Pressure Transducer
PX-271A



M3504/0303

SPECIFICATIONS

Accuracy*: ± 1% FS

Maximum Pressure: 40 PSIG

Supply Voltage: 12 - 40 VDC; 12 - 35 VAC (VDC output transducers only)

Supply Current: 10 mA maximum VDC output transducers; 20 mA maximum mA output transducers

Enclosure: 18 Ga. C.R. steel NEMA-4 (IP-65)

Finish: Baked on enamel PMS2GR88B

Conformance: EMC standards EN50082-1(1992), EN55014(1993)/EN60730-1(1992)

Compensated Temperature Range: 0°F to 180°F (18°C to 82°C)

T. C. Error: ± 0.025%/°F (.03%/°C)

Media Compatibility: Clean dry air or any inert gas

Port Connection: 5/32" I.D.; 1/4" O.D. hose barb

Environmental: 10 to 90% RH non-condensing

Termination: Unpluggable screw terminal block

Wire Size: 12 Ga. maximum

Load Impedance: 1.6K ohms maximum at 40 VDC (mA output transducers); 1,000 ohms minimum (VDC output transducers)

Weight: 1.0 lb. (.45 kg)

* Includes nonlinearity, hysteresis, and non-repeatability.

INSTALLATION PRECAUTIONS

Do not use on oxygen service, in an explosive or hazardous environment, or with flammable or combustible material.

Disconnect the power supply before installing the transducer. Failure to do so can result in electrical shock and equipment damage.

Make all connections in accordance with the job wiring diagram and national and local electrical codes.

Use electrostatic discharge precautions such as wrist straps when installing and wiring the transducer.

Do not exceed ratings for the transducer.

If using grounded AC, ensure that the hot wire is on the [+] terminal. Also, if using a controller without built-in isolation, use an isolation transformer to supply the transducer.

This transducer contains a half-wave rectifier power supply and must not be powered from transformers powering other devices with non-isolated full-wave rectifier power supplies.

When multiple transducers are powered from the same transformer, damage will result unless all 24-gauge power leads are connected to the same power lead on all transducers. Maintain the correct phasing when powering more than one transducer from a single transformer.

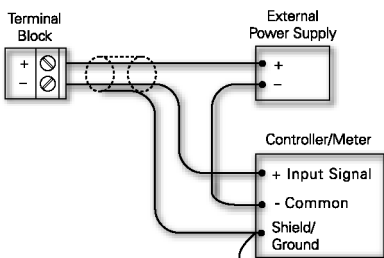
WIRING

Use 12 AWG wire maximum for wiring terminals and flexible 1/4-inch O.D. (5/32-inch I.D.) tubing for pressure connections.

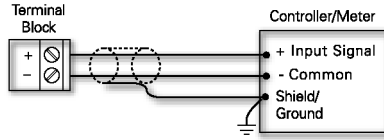
The mA output pneumatic pressure transducer must be powered with a 12 - 40 VDC power supply. The VDC output pneumatic pressure transducer is field selectable for 0 - 5 VDC or 0 - 10 VDC output and can be powered with either 12 - 40 VDC or 12 - 35 VAC.

Wiring for mA Output:

1. Remove the blue terminal block by carefully pulling it off the circuit board.
2. Note the block's terminal markings on the circuit board.
3. If using an external power supply, make these connections:
 - supply voltage wire to the [+] terminal
 - power supply common to the common bus of the controller/meter
 - input signal of the controller/meter to the [-] terminal



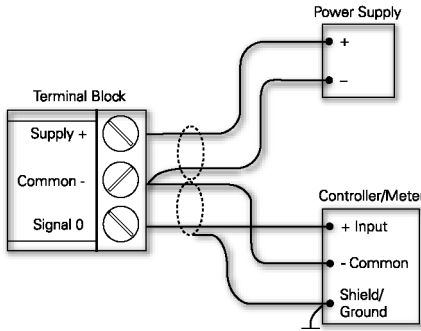
4. If using a controller/ meter with an internal power supply, make these connections:
 - controller/meter input signal to the [+] terminal
 - controller/meter common to the [-] terminal



5. Reinsert the terminal block onto the circuit board and apply power to the transducer.
6. Check for the appropriate output signal using a digital voltmeter set to DC milliamps connected in series to the [-] terminal.

Wiring for VDC Output:

1. Remove the blue terminal block by carefully pulling it off the circuit board.
2. Note the block's terminal markings on the circuit board.
3. Connect the power supply voltage wire to the [+] terminal and the power supply common to the [-] terminal.
4. Connect the controller/meter input wire to the [0] terminal and the controller/meter common wire to the [-] terminal.



5. Reinsert the terminal block onto the circuit board and apply power to the transducer.
6. Check the appropriate VDC output using a digital voltmeter set to DC volts connected to the [0] and [-] terminals.

PRESSURE RANGES AND JUMPER CONFIGURATIONS

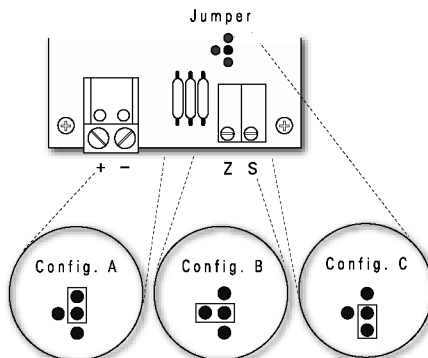
Jumper Configurations for mA Output Transducers

Range	A	B	C
020	0 - 20 PSIG	0 - 10 PSIG	0 - 5 PSIG
030	0 - 30 PSIG	0 - 15 PSIG	0 - 7.5 PSIG
X15	3 - 15 PSIG	-	-

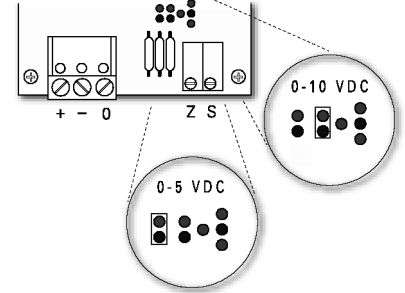
Jumper Configurations for VDC Output Transducers

Range	A	B	C
020	0 - 20 PSIG	0 - 10 PSIG	0 - 5 PSIG
030	0 - 30 PSIG	0 - 15 PSIG	0 - 7.5 PSIG
X15	-	3 - 15 PSIG	-

Jumper Configurations for Pressure Ranges



Jumper Configurations for VDC Output

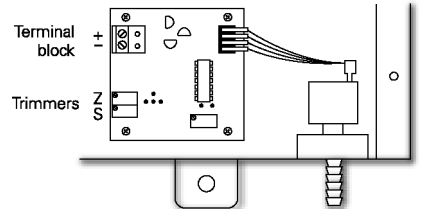


CALIBRATION

All transducers are factory calibrated to meet or exceed published specifications. If field adjustment is necessary, follow these instructions.

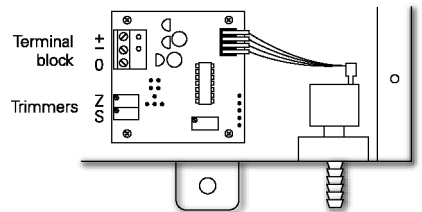
1. Connect the [+] and [-] terminals to the appropriate power source.
2. If calibrating an mA output transducer, connect a digital voltmeter in series to the [-] terminal.

mA Output Transducer



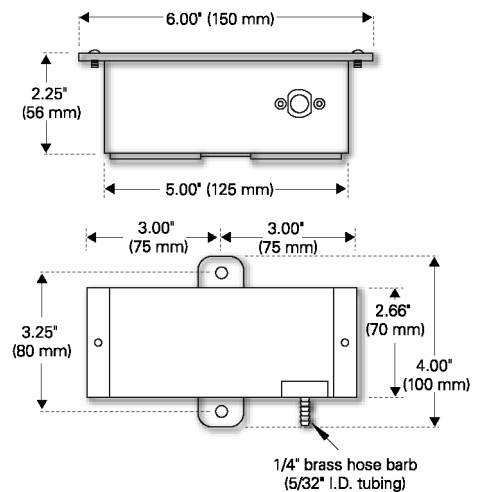
3. If calibrating a VDC output transducer, connect a digital voltmeter on DC volts across the [0] and [-] terminals.

VDC Output Transducer



4. Apply low pressure to the transducer and carefully adjust the zero trimmer [Z] to obtain the desired low output pressure.
5. Apply high pressure to the transducer and adjust the span trimmer [S] to obtain the desired high output pressure.
6. Repeat steps 4 and 5 until the transducer is fully calibrated.

DIMENSIONS





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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.

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