

GP:50

INSTALLATION, CALIBRATION & TROUBLESHOOTING MANUAL

Model 7500 Transducer



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Record of Changes

REV	DESCRIPTION	DATE	BY
A	Revised connector option designation	8/17/09	MM

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Disclaimer

No representations or warranties are made with respect to the contents of this Installation Guide. GP:50 reserves the right to revise this guide and to make changes periodically to the content hereof, without obligation to notify any persons of such revisions.

Warning

Pressurized vessels as such and associated equipment are potentially dangerous. The product described in the guide should be operated only by personnel trained in the procedures that will assure safety to themselves, to others, to the equipment, and to the product. Before performing any maintenance, turn the power off.

Introduction

The Model 7500 pressure transducer is designed for pressure measurement and easy recalibration. The all stainless steel parts construction and the hermetically sealed enclosure ensure that the product meets all customer specifications. The pressure transducers are designed and manufactured in accordance with MIL-Standards and GP: 50 QA procedures.

Unpacking and Inspection

The Model 7500 pressure transducer was thoroughly tested and inspected and carefully packed. Upon receipt of the shipment thoroughly inspect the transducer.

If you see any visible signs of obvious shipping damage, notify the Freight Company immediately.

Mechanical Installation

Installation Note- Transducers are precision instruments and should be given the same care as any other precision instrument during installation and operation.

Handling- the transducer has a protective cap covering the pressure ports and electrical connector of the transducer. This ensures that the surface is protected from nicks and scratches. It is recommended that the caps remain in place during storage and handling, in order to prevent damage to the diaphragm and connector.

Installation- Remove the protective plugs from the pressure port before installation. Thread the pressure port into a plumbing system. Use proper wrench size installation. Installation torque is 120inlb for port options FA,FD. For port option FJ use 45ft-lbs torque with compatible thread sealing compound or tape.

In additional, mounting brackets can be employed for extra support if required by application. See Outline drawing for recommended location of the brackets.

Included in the package is a O-ring for option FD connector so either the metal to metal joint or o-ring joint configuration can be used to seal the transducer to the manifold.

Electrical Installation

USE ESD PRECAUTIONS DURING CONNECTION TO THE TRANSDUCER.

Ensure power is off prior to connection or disconnection from the transducer or your instrumentation system.

The electrical connection for the model 7500 is either a 6 pin bayonet style, or 6 pin military grade threaded style connector. Below is a list of standard non-environmental plug part numbers available at the factory, please contact factory for other mating plug needs:

Option CA use P/N: PT06E-10-6S

Option CI use P/N: D38999/26WB98SN*

Option DB use P/N: D38999/26WA35SN*

- Plug only, backshell must be purchased separately.

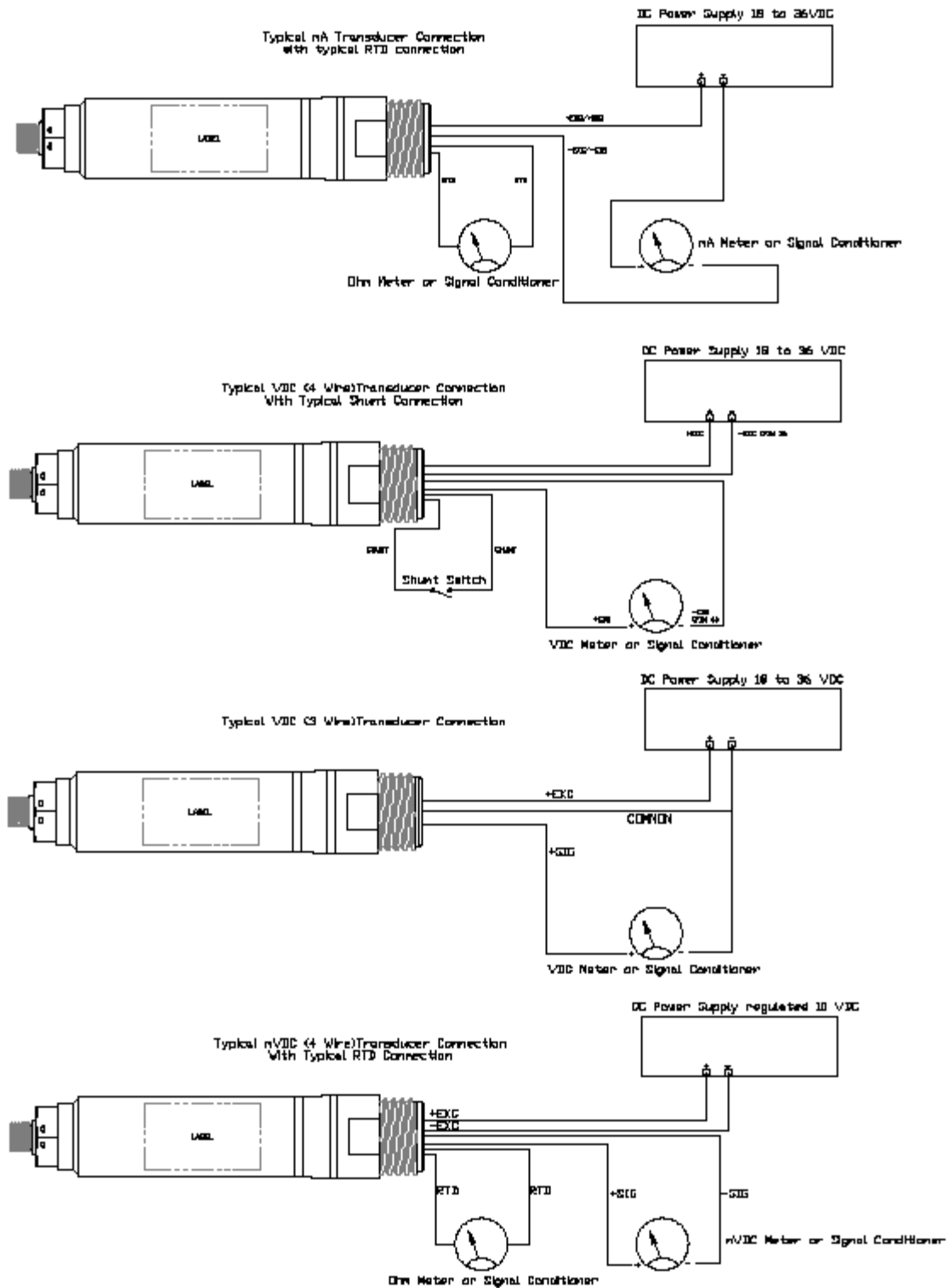
Output of the transducer is as follows:

Option 1	0 to 3 mV/VDC
Option 2	0 to 5 VDC (4 wire, input/output electrically non-isolated)
Option 3	4 to 20 mA (2 wire)
Option 4	0 to 5 VDC (4 wire, input/output electrically isolated)
Option 5	0 to 10 VDC (4 wire, input/output electrically non-isolated)
Option 6	0 to 10 VDC (4 wire, input/output electrically isolated)
Option 7	0 to 2 mV/VDC
Option 8	0 to 10 mV/VDC
Option 9	0 to 5 VDC (3 wire, input/output electrically non-isolated)
Option 10	0 to 10 VDC (3 wire, input/output electrically non-isolated)

For proper wiring see wiring diagram below.

Wiring

Reference attached Model 7500 outline drawing for specific model pin-outs.



Reference attached Model 7500 outline drawing for specific model pin-outs.

Please Note: Electronics have been designed so that momentary incorrect wiring of the power leads on the transducer will not damage the circuitry of the transducer.

Each transducer has been supplied with a calibration card for reference output data at different pressures and compensated temperatures also identifying the non-repeatability, hysteresis, non-linearity static accuracy and total transducer errors. Additionally, the card will identify optional RTD output resistance at 70°F or 80% / 100% optional shunt output.

Troubleshooting

Symptom/Problem	Action
No Output	<ul style="list-style-type: none"> • Verify power supply voltage meets transducer requirements • Check wiring connections • Verify pressure is being applied • Verify output load is not shorted
Erratic/Intermittent output or Zero drift	<ul style="list-style-type: none"> • Verify pressure applied is constant • Verify power supply remains within specifications • Inspect electrical connections for discontinuity or damage. • Verify output with a multi-meter • Check insulation resistance between amplifier and transducer case.
Loose or Leaking process connection	<ul style="list-style-type: none"> • Inspect Weld joint • Re-torque process connection • Replace Teflon o-ring on face seal

Warranty

GP:50 Warranty Statement

GP:50 warrants its products to the original customer/purchaser against defects in material and workmanship for a period of one (1) year from the date of sale by GP:50, as shown in its shipping documents, subject to the following terms and conditions:

Without charge GP:50 will repair or replace products found to be defective in materials or workmanship within the warranty period provided that:

1. The product has not been subjected to abuse, neglect, accident, incorrect wiring (not provided by GP:50), improper installation or servicing, or use in violation of instructions furnished by GP:50.
2. Electronic access screws have not been removed. This will void calibration and warranty
3. As to any prior defect in materials or workmanship covered by this warranty, the product has not been repaired or altered by anyone except GP:50 or its authorized service agencies.
4. The serial number has not been removed, defaced or otherwise changed.
5. Examination discloses, in the judgement of GP:50, a defect in materials or workmanship which developed under normal installation, use and service; and
6. GP:50 is notified in advance of, and approves the return; and the products are returned to GP:50 transportation prepaid.

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Contact our website <http://www.gp50.com> for a copy of our rework/repair policy or call our Aerospace dept.

