

Pressure Transducers

Description

Wasco Inc.'s T1, T2 and T3 Series pressure transducers are designed for a wide range of media compatibility. The temperature range (-40°F to +220°F) handles even the most demanding applications. All of Wasco Inc.'s pressure transducers have three different output options (.5 - 4.5V, 1 - 5 V, and 4 - 20 mA) and ten available fittings, which enable them to be the top choice for a broad range of industries. These miniature, robust sensors measure pressures from vacuum to 3,000 Psi.



Features

All Stainless steel wetted parts

0.5% Accuracy from -40° to +220°F

Signal conditioning and reverse polarity protection

All welded design

Applications

Semiconductor
Agriculture
Aerospace
Medical

Factory Automation
Fluid Control
Refrigeration
Pharmaceutical

T1 Series

.5 - 4.5 Volt Output

T2 Series

1 - 5 Volt Output

T3 Series

4 - 20 mA Output



Wasco INC.

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Transducer Specifications

Performance Specifications

	T1 Series	T2 Series	T3 Series
Output Type	0.5 to 4.5 Volts	1 - 5 Volts	4 - 20 mA
Accuracy ¹	0.5% FS -40 to 220°F	0.5% FS -40 to 220°F	0.5% FS -40 to 220°F
Linearity ²	< 0.25%FS (15 - 500 Psia) < 0.5%FS (750 - 3000 Psia)	< 0.25%FS (15 - 500 Psia) < 0.5%FS (750 - 3000 Psia)	< 0.25%FS (15 - 500 Psia) < 0.5%FS (750 - 3000 Psia)
Zero Pressure Offset ³ (Consult Factory for other options)	0.5 V +/-0.05 V	1 V +/- 0.05 V	4mA +/- 0.2 mA
Operating Temperature	-40 to 220°F	-40 to 220°F	-40 to 220°F
Storage Temperature	-40 to 220°F	-40 to 220°F	-40 to 220°F
Proof Pressure	3 X FS	3 X FS	3 X FS
Burst Pressure	10 X FS or 15,000 Psia (whichever is less)	10 X FS or 15,000 Psia (whichever is less)	10 X FS or 15,000 Psia (whichever is less)

Electrical Specifications

	T1 Series	T2 Series	T3 Series
Output Type	0.5 to 4.5 Volts	1 - 5 Volts	4 - 20 mA
Supply Voltage	5 +/- 0.5	8 to 30 Volts	8 to 30 Volts
Supply Current	< 6 mA	< 3 mA	Not Applicable
Output Current	0.45 mA Max (Sink or Source)	0.45 mA Max (Sink or Source)	Not Applicable
Response Time	< 1 ms	< 1 ms	< 1ms

Reliability and Environmental Performance

	Test Conditions	Value	Units
Wetted Materials	304L & 316L Stainless Steel	-	-
Pressure/Temperature Cycles ⁴	0 to FS @ 8Hz; and -40°F to 220°F	>1.8x10 ⁶	Cycles
Thermal Shock	220°F to -40°F, 0.5 hr soak at temperature (2s transfer)	250	Cycles
Vibration	10 to 2050 Hz, 20 Sinusoidal, 3 Axes	144	Hours
Humidity	185°F and 90% to 95% relative humidity	250	Hours
Weight	T1 Series with 1/8" NPT 316L stainless steel fitting	≤1.5	Ounces

¹Includes pressure and temperature hysteresis, repeatability, non-linearity and calibration.

²Calibrated using BFSL

³Sensor output @ 14.5 psia.

⁴Pressure cycling performed at rated full scale pressure.

Limited Warranty (for Wasco Transducers only)

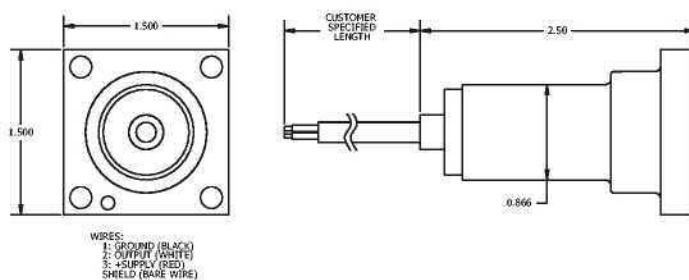
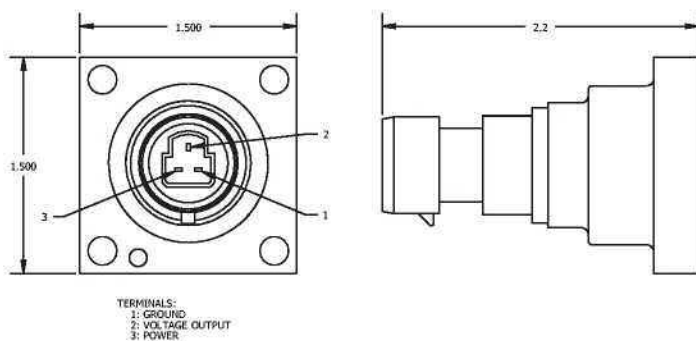
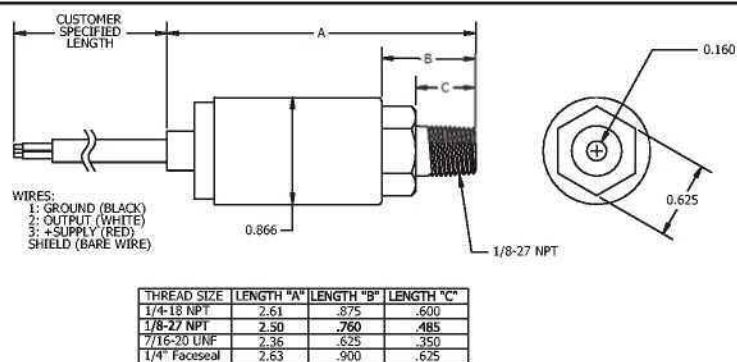
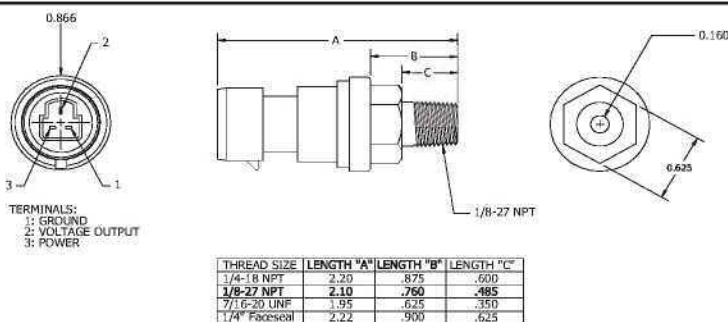
All WASCO INC. transducers are warranted against defective materials and workmanship for a period of one (1) year from the date of delivery to the original purchaser. Any product that is found to be defective within the one year period will be replaced or repaired at the discretion of WASCO INC. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, PERFORMANCE, OR OTHERWISE. WASCO INC. is not an expert in the customer's technical field and therefore does not warrant the suitability of its products for the applications selected by the customer. WASCO INC. accepts no responsibility for misuse, misapplication or unauthorized modification of its products. WASCO INC.'s obligation under this limited warranty is strictly and exclusively limited to the repair or replacement free of charge of such products as are to be found to be defective in material or workmanship on the condition that the purchaser gives prompt written notice to WASCO INC. of any claim to breach of warranty within the warranty period, and if requested, returns the defective product(s) to WASCO INC. WASCO INC. will not assume any expenses or liability for repairs made to its products outside of its plant without its prior written consent. WASCO INC. reserves the right to satisfy its warranty obligation in full, with respect to defective products, by the payment to the purchaser of all sums paid by the purchaser to WASCO INC. for such products. IN NO EVENT SHALL WASCO INC. BE LIABLE FOR CLAIMS (BASED UPON BREACH OR EXPRESS OR IMPLIED WARRANTY, NEGLIGENCE OR OTHERWISE) FOR ANY DAMAGES, WHETHER DIRECT, IMMEDIATE, INCIDENTAL, FORSEEABLE, CONSEQUENTIAL, OR SPECIAL. WASCO INC. reserves the right to change its specifications at any time without notice.



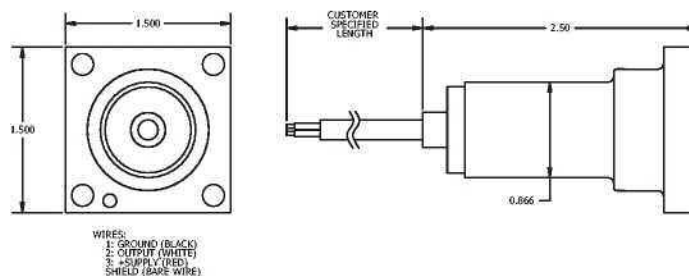
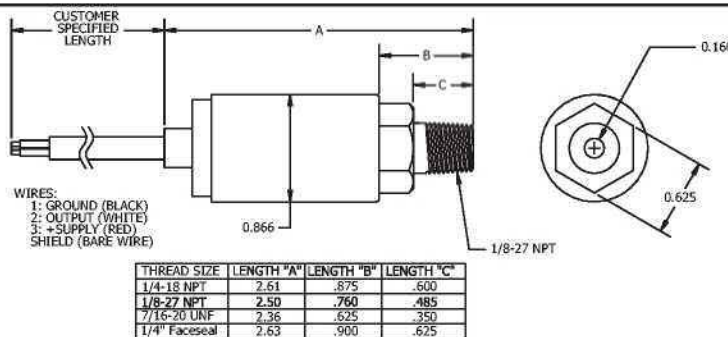
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Transducer Drawings

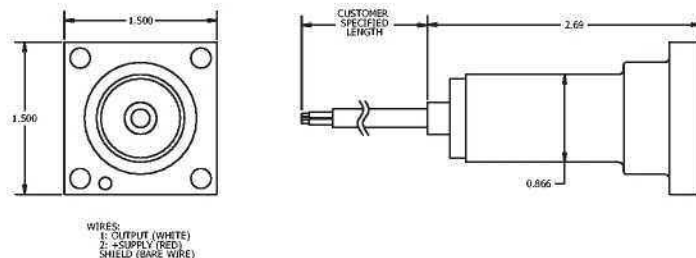
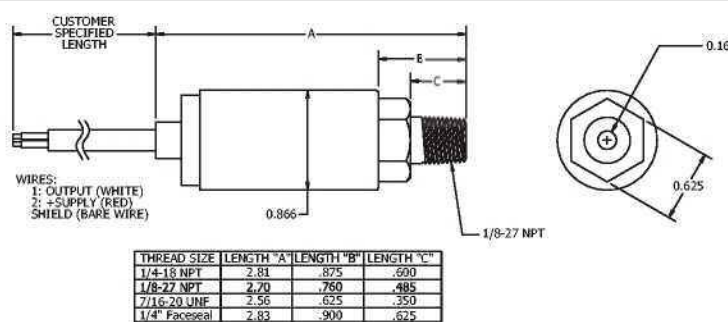
T1 Series Dimensional Drawings



T2 Series Dimensional Drawings



T3 Series Dimensional Drawings



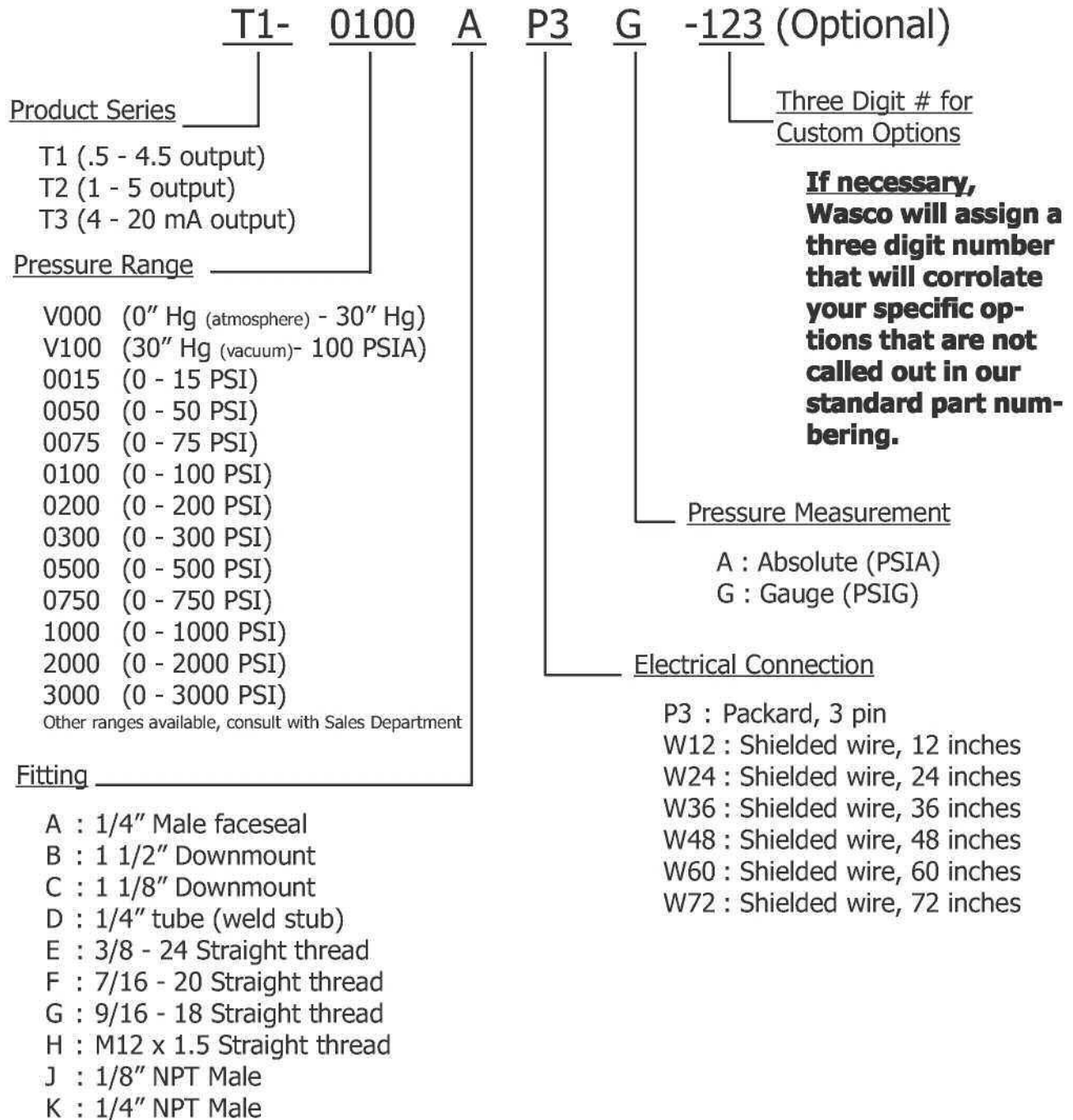
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How to Order: Transducers

This chart illustrates the part number matrix of Wasco pressure transducers

(Choose one of the following selections in each category)



Example: T1-0100AP3G

.5 - 4.5 VDC output transducer, 0-100 PSI range, 1/4" Male facesal, Packard 3 pin electrical connection, Gauge pressure reference.



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EU Declaration of Conformity



Product Name: Pressure Transducer/Transmitter
Model Numbers: T1, T2, T3
Test Reports: 366672-01 and EM/2008/10030

The undersigned hereby declares, on behalf of Wasco, Inc. of Santa Maria, California, that the above-referenced product, to which this declaration relates, is in conformity with the provisions of EMC Directive 2004/108/EC Requirements.

Test Required/Standards:

EN61000-6-4: 2005	EN 61000- 6-2: 2001 + EN61000-6-2: 2007
CISPR16-2-3	IEC 61000-4-2: 1995 with A1: 1998 with A2: 2000
	IEC 61000-4-3: 2002 with A1: 2002
	IEC 61000-4-4: 2004
	IEC 61000-4-6: 2003 with A1: 2004 with A2: 2006
	IEC 61000-4-8: 1993 with A1: 2000

The Technical Construction File required by this Directive is maintained at our corporate Headquarters in Santa Maria, California.

January 5, 2007

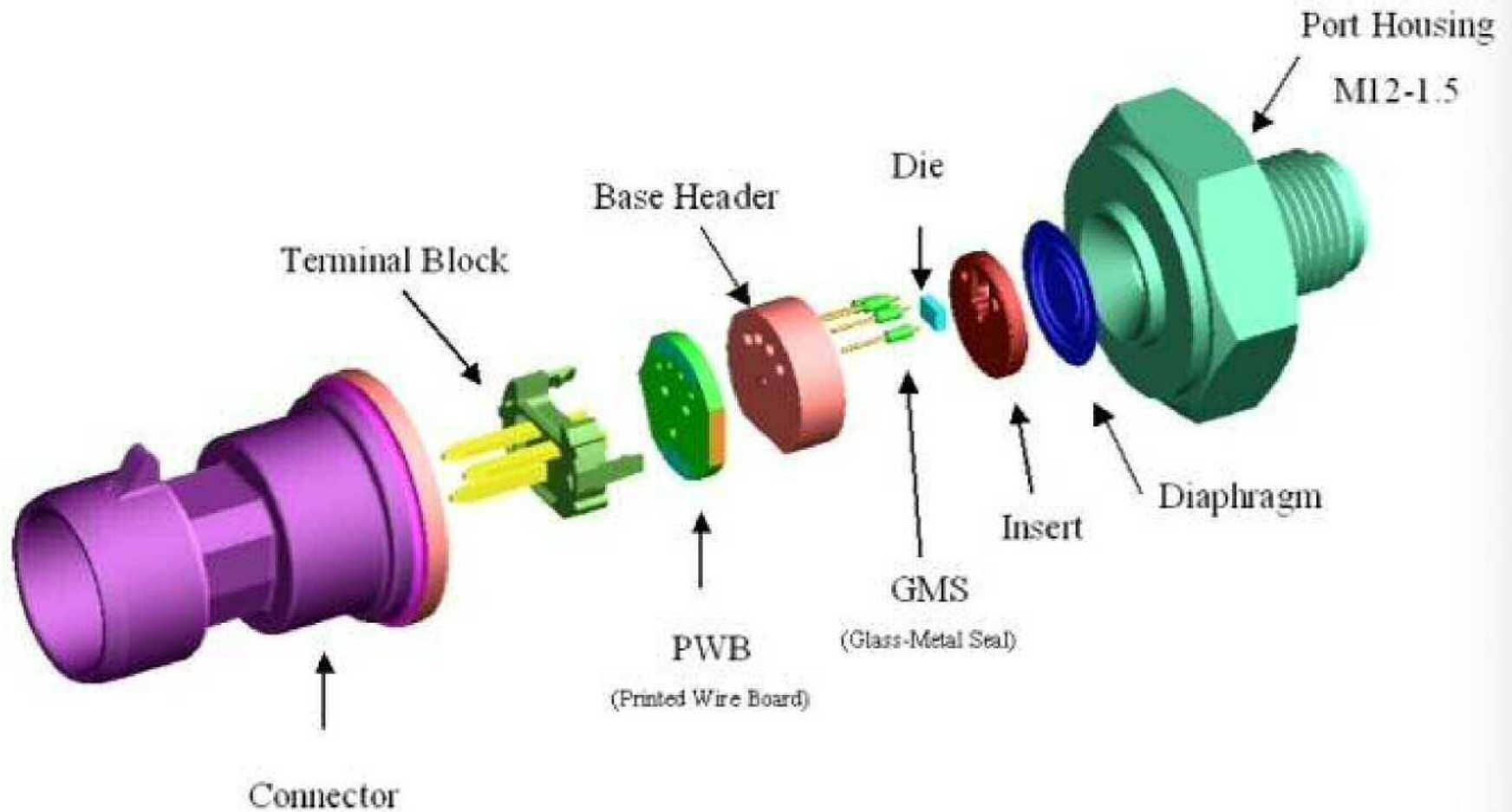
David Way
General Manager

Date



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