



Customer Service and Product
Quality Are Our No.1 Priority

Terwin 2000 Series “Environmentally Friendly” Extrusion Pressure / Temperature Transducers



Advantages:

- ✓ Accuracy $\pm 0.5\%$
(typically $\pm 0.25\%$).
- ✓ 4 x thicker Di-Hard™
abrasion / corrosion
resistant diaphragm.
- ✓ Stainless steel
construction
throughout.
- ✓ Compatible with food,
film and
pharmaceutical
applications.
- ✓ DOES NOT contain
Mercury, NaK (sodium
Potassium or any
other toxic product to
contaminate the
extrudate.
- ✓ Compliant with
EN50082 part 1 and
EN55022-1987 class A.
- ✓ Protected by UK
patent No. 2,153,538
USA patent No.
4,625,559 and
European patent No.
0156081.
- ✓ Suitable for extrudate
temperatures up to
450°C / 842°F.
- ✓ Interchangeable with
most other brands.

Description:

The Terwin 2000 series transducers have been designed to meet the most exacting requirements in modern day extrusion technology. Fitted with the unique Di-Hard™ diaphragm, these transducers are suitable for extrudate temperatures up to 450°C / 842°F and are resilient against attack from most abrasive or corrosive products.

The 2000 series incorporates unequalled mechanical and electrical design features to overcome the problems of large zero and span shifts caused by changes in process temperatures. This has only been obtainable in the past with transducers that utilise a liquid filled system incorporating substances such as Mercury or Sodium Potassium. All Terwin 2000 series transducers are constructed throughout from stainless steel and do not employ any toxic substances, thus allowing them to be used on machines involved in the process of food, film or pharmaceutical products.

When it is required to measure temperature as well as pressure, the 2000 series is available with type “J” or “K” integral thermocouples. Standard thermocouples have grounded junctions.

The 2000 series is also available with a variety of head and connection / calibration types.

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Specifications:

Standard Pressure Ranges:	psi:	0-1,500	0-3,000	0-5,000	0-7,500	0-10,000	0-15,000
	bar:	0-100	0-200	0-350	0-500	0-700	0-1,000
Available Pressure Ranges:	psi: 0-500 to 0-30,000 bar: 0-35 to 0-2,000						
Combined Error:	Standard ranges:			Non-standard ranges:			
	Within ±0.5%. F.R.O. (Typically ±0.25%)			Within ±1%. F.R.O. (Typically ±0.5%)			
Repeatability:	Within ±0.1% F.R.O.						
Resolution:	Infinite.						
Maximum Pressure:	1.5 x full range or 25,000psi (1,700 bar) whichever is less. On 30,000psi (2,000bar) sensors, the maximum pressure is 35,000psi (2,400 bar).						
Body Material:	17-4PH Stainless steel.						
Diaphragm Material:	Terwin Di-Hard™ Extra Thick, Abrasion & Corrosion Resistant Long-Life Diaphragm						
Optional Diaphragm Coatings:	(DCN) Double Chromium Nitride Outperforms TN and Hastelloy coatings in most applications.			(TN) Titanium Nitride Additional anti-abrasion resistance which also helps prevent thread galling.			
Standard Thread Size:	1/2"-20UNF-2A						
Mounting Torque:	20ft lbs (27Nm) (240 inch/lbs)						
Available Metric Thread Adaptor:	M18 x 1.5mm						
Electrical Specifications:							
Excitation:	5-12V D.C.						
Configuration:	Four-arm bonded foil Wheatstone bridge strain gauge						
Bridge Resistance:	350Ω ±10%						
Output:	3.0mV/V D.C. ±10% on ranges 0-1,500 psi (0-100 bar) and above. 2.0mV/V D.C. ±10% on ranges of 0-1,000 psi (0-70 bar) and below.						
Zero Balance:	±7.5% F.R.O.						
Internal Negative Shunt Calibration:	6-wire 80% F.S.O. ±0.1% - Other calibration types are available.						
Electrical Connectors:	6-Pin (D6) PT02A-10-6P	8-Pin (D8) PT02E-12-8P	9-Pin (D9)	12-Pin (D12)	Cannon 6-Pin (G) (Gentran)	Cannon 6-Pin (BC) (Barber Coleman)	½"-NPT direct cable outlet
Integral Temperature Sensors:	"J" I/C grounded junction. "K" C/A grounded junction.			Un-grounded (insulated) junctions are optional.			
Maximum Diaphragm Temperature:	450°C (842°F)						
Maximum Strain Gauge Temperature:	200°C (392°F)						
Zero Drift:	<0.01% F.S.O./°C (<0.005% F.S.O./°F)						
Sensitivity (span) Drift:	<0.01% F.S.O./°C (<0.005% F.S.O./°F)						

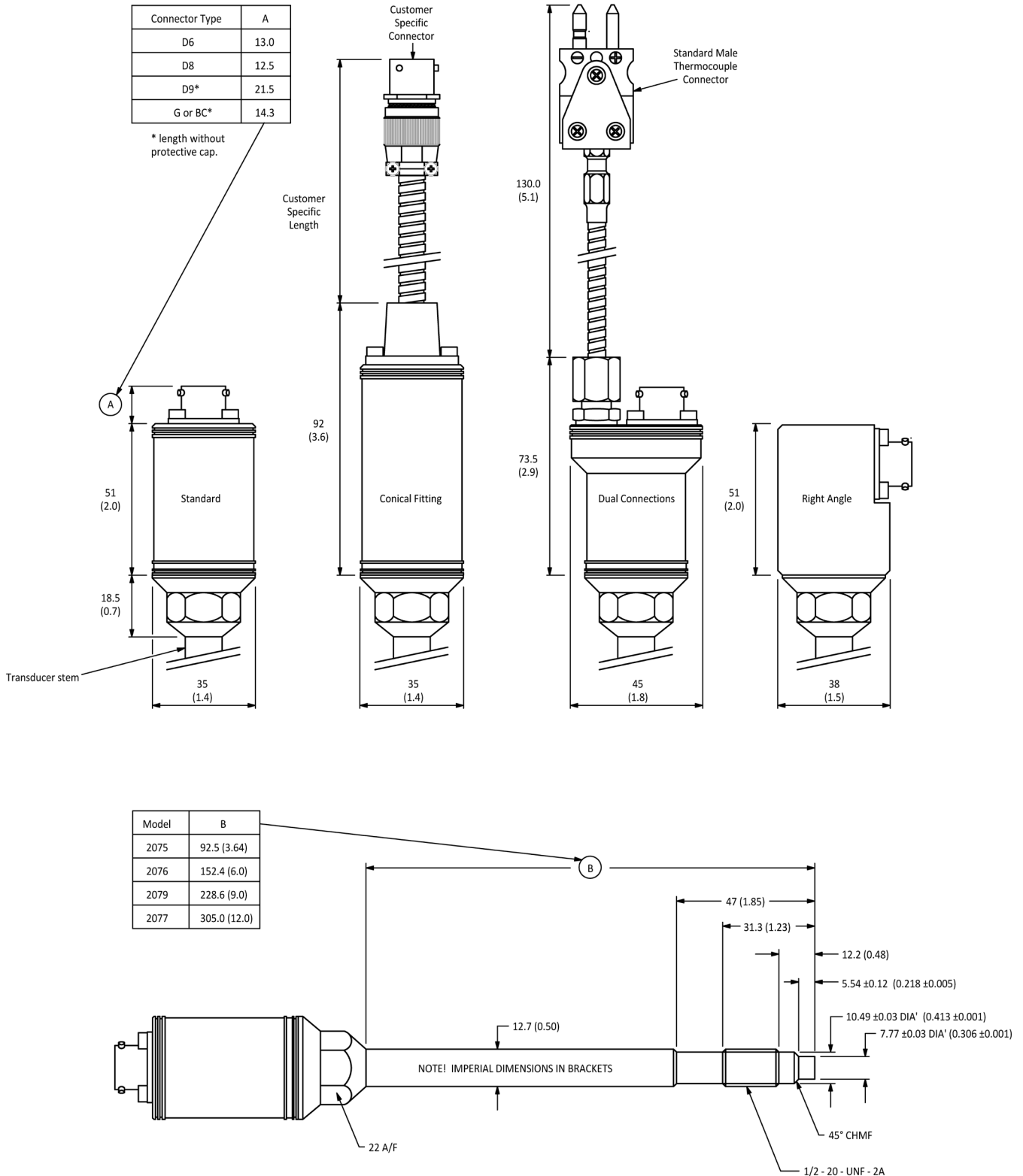
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Dimensions:



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Part Numbers:

Complete Part Number = Model Number + Specification Code:

Transducer with standard specifications / options.

Format: 207AB-CD-EF-G

Example: 2076J-D8-10M-DCN

Transducer with non-standard options.

Format: 207AB-CD-EF-G-SP0xxx

Example: 2076J-NN-10M-TN-SP0348

Effective Stem Length:

5 = 3.64" (92.5mm)
6 = 6.0" (152.4mm)
9 = 9.0" (228.6mm)
7 = 12.0" (305mm)

N = Non-standard - An SP suffix number will be added.

Integral Thermocouple Type:

Blank = None
J = J/I/C Grounded junction (standard)
Ji = J/I/C Insulated junction
K = K/C/A Grounded junction (standard)
Ki = K/C/A Insulated junction

N = Non-standard - An SP suffix number will be added.

Connector & Calibration Type:

D6 = PT02A-10-6P connector with 6-wire 80% negative shunt calibration
D8 = PT02E-12-8P connector with 6-wire 80% negative shunt calibration
D9 = Special 9-pin IP65 connector with 6-wire 80% negative shunt calibration
D12 = Special 12-pin IP65 connector with 6-wire 80% negative shunt calibration
G = WK-6-32S connector with 4-wire 30K1 ohm positive shunt calibration
G9 = Special 9-pin IP65 connector with 4-wire 30K1 ohm positive shunt calibration
GD6 = PT02A-10-6P connector with 4-wire 30K1 ohm positive shunt calibration
BC = WK-6-32S connector with Barber Colman 4-wire 30K1 ohm positive shunt calibration
BCD6 = PT02A-10-6P connector with Barber Colman 4-wire 30K1 ohm positive shunt calibration

N = Non-standard - An SP suffix number will be added.

Standard Pressure Range & Units:

1.5M = 0-1,500 psi g
3M = 0-3,000 psi g
5M = 0-5,000 psi g
7.5M = 0-7,500 psi g
10M = 0-10,000 psi g
15M = 0-15,000 psi g

100B = 0-100 bar g
200B = 0-200 bar g
350B = 0-350 bar g
500B = 0-500 bar g
700B = 0-700 bar g
1000B = 0-1,000 bar g

Other pressure range are available but an additional charge may be applicable.
Most pressure units are available to order at no extra cost, i.e. MPa, Kg/cm² etc.

N = Non-standard - An SP suffix number will be added.

Diaphragm Coating Options:

Blank = None
TN = Titanium Nitride (TiN) - Extra abrasion and thread galling resistance.
DCN = Double Chromium Nitride (CrN) - Extra corrosion resistance.

N = Non-standard - An SP suffix number will be added.

Special Options:

Blank = None
Specials will have a unique SP number added here.

207AB - CD - EF - G - SP0xxx

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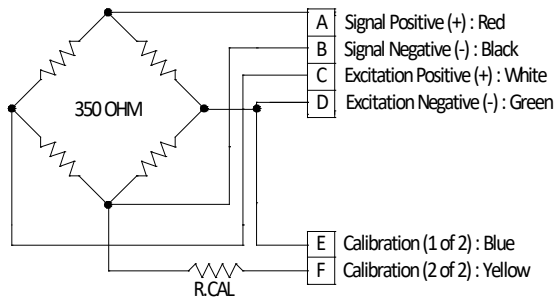


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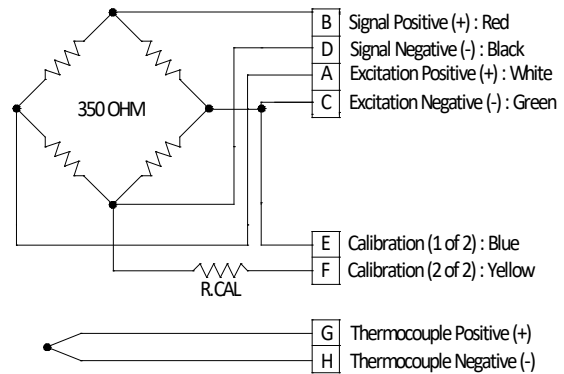
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Wiring Information:

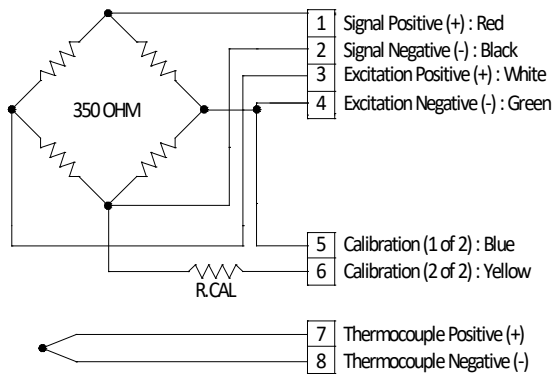
"D6" PRESSURE TRANSDUCER



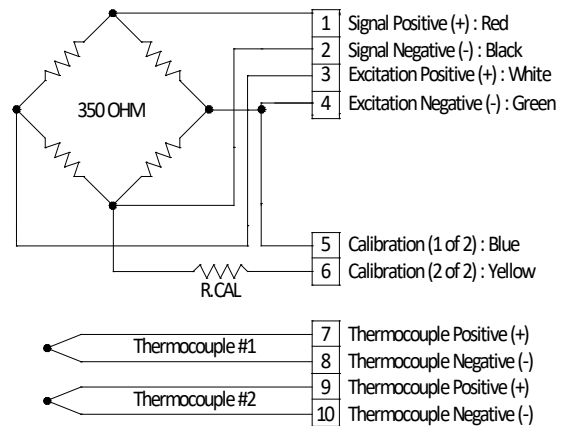
"D8" PRESSURE / TEMPERATURE TRANSDUCER



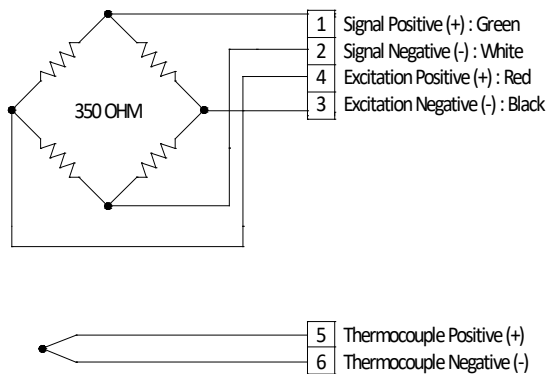
"D9" PRESSURE / TEMPERATURE TRANSDUCER



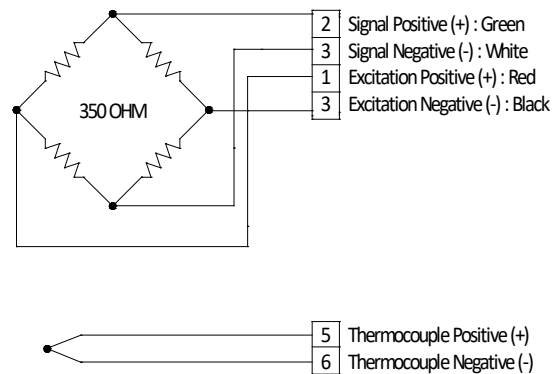
"D12" PRESSURE / TEMPERATURE TRANSDUCER



"G" PRESSURE / TEMPERATURE TRANSDUCER



"BC" PRESSURE / TEMPERATURE TRANSDUCER



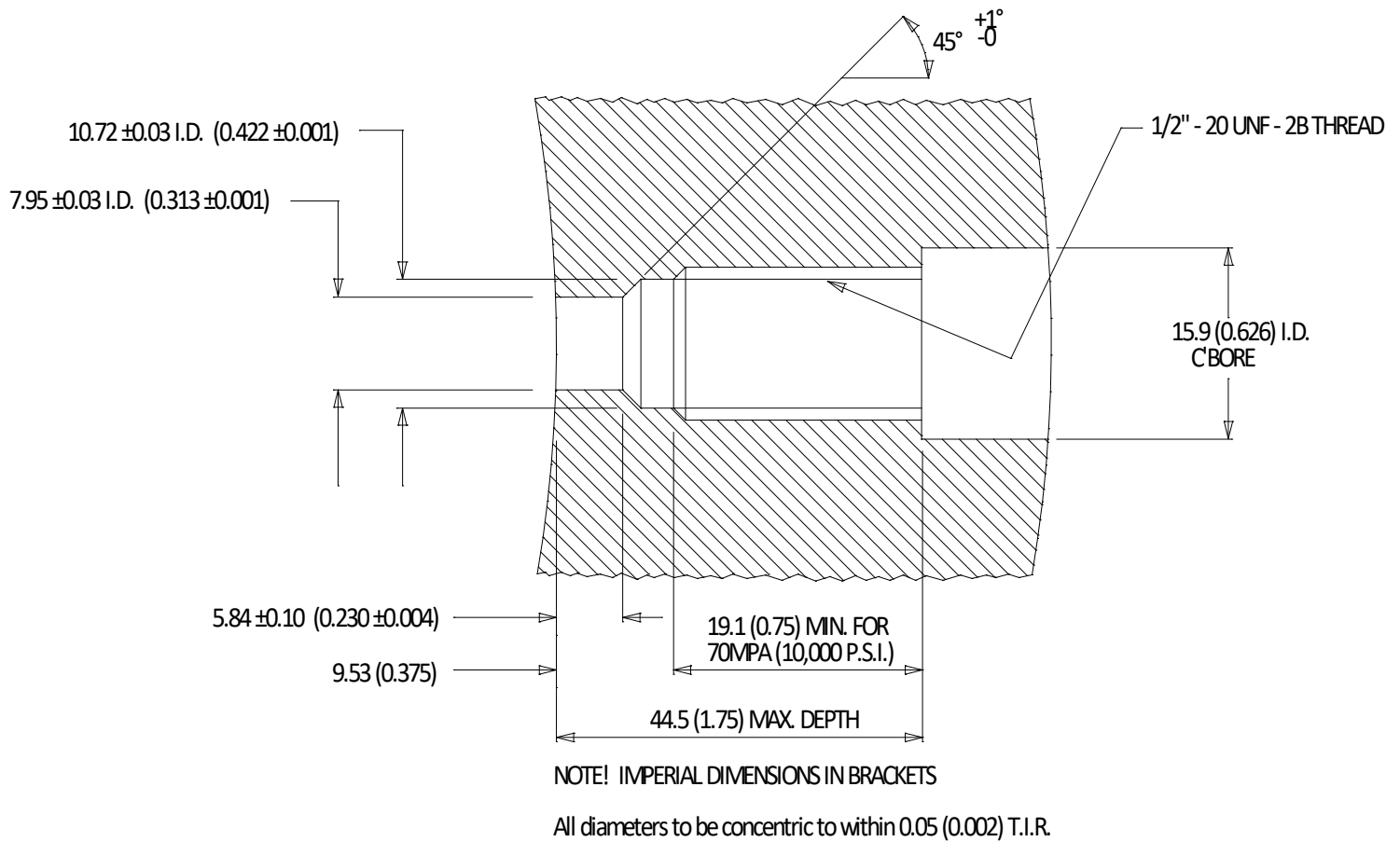
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Recommended Port Dimensions:



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