

Model 1000 General Purpose Pressure Transducer



- **Eliminate Drift** – Fused Bond sensor technology for long-term stability
- **Eliminate Noise** – Maximum RF/EMI protection on every transducer
- **Outputs** - 4-20mA, 0-5V & 0-10V – custom outputs available
- **Pressure ranges** 0-10" WC to 0-30,000 PSI
- **Accuracies to 0.1% BFSL**
- **Unparalleled long-term stability**
- **Temperature compensation at the sensor element.**
- **Custom designs available (contact factory)**

CE

Spectre's Model 1000 is specifically engineered to eliminate the two most common problems with pressure transducers, noise and drift. It's large, raw sensor output (10-70X that of a bonded foil strain gauge device), The long term stability of Model 1000 and standard RF/EMI protection provide the most rugged and reliable transducer for industrial applications. Originally designed to withstand the rigorous testing requirements of defense and space applications, The Model 1000 offers aerospace performance to the industrial marketplace.

Performance @ 25°C (77°F)

Accuracy: $\pm 0.5\%$ BFSL (0.2% and 0.1% optional)
Stability (2 year): $\pm 0.05\%$ FS, typical
Over pressure protection: 2X Rated Pressure
Burst Pressure: 5X minimum
Pressure Cycles: >50 Million
Temp. range: -40 to +100°C (-40 to + 212°F)
Optional: -60 to +130°C (-76 to +266°F)
Temperature Accuracy: $\pm 1^\circ\text{C}$ ($\pm 2^\circ\text{F}$)

Environmental Data

Operating temp: -40 to +100°C (-40 to +212°F)
(Optional to +275°F, consult factory)
Storage temp: -50 to +125°C (-60 to +250°F)
Compensated range: 0 to 50°C (+32 to +125°F)
Temp comp Zero: $\pm 1.5\%$ FS
Temp comp Span: $\pm 1.5\%$ FS

Electrical Data

Excitation:
9-36 Vdc (4-20mA and 0-5 Vdc outputs)
13-36 Vdc (0-10 Vdc output)
Option C29: Maximum 29 Vdc excitation
Current consumption: <math>< 5\text{ mA}</math> (voltage outputs)
Zero offset: $\pm 0.25\%$ of FS - field adjustable
Span tolerance: $\pm 1.0\%$ of FS
Output load: >10K Ohm

Physical data

Sensor wetted material: 17-4 PH stainless (optional:
316 stainless steel)

Pressure connection: 1/4 male NPT, SAE-4
(others on application)

Electrical Connection: Cable, DIN, Cannon, Bendix
(others available on application)

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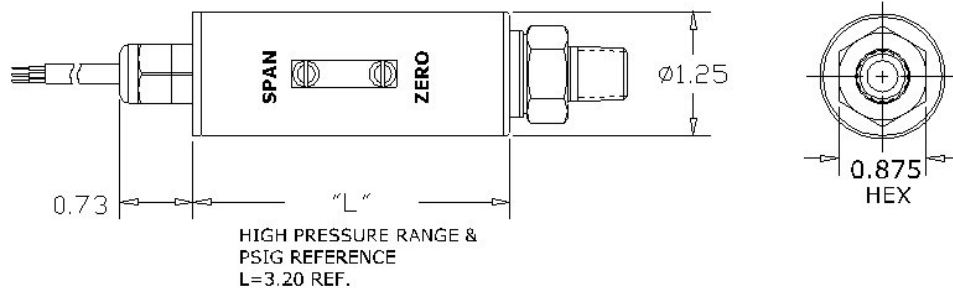
Ordering guide – Example: 1000-A-(0-500PSI)-2-D-5-EC2

A	(0-500)	2	D	5	EC1
Pressure Port	Range	Units	Output	Accuracy	Connector
A=1/4" MNPT B=SAE-4 (w/o-ring) C=Other D=1/8"MNPT E=Autoclave F250C	Specify Pressure Range in PSI, BAR, kPa or inches WC	1=Absolute 2=Gauge 3=Vacuum 4=Sealed 5=Compound 6=Other	D=4-20mA E=0-5VDC F=0-10VDC X=Other (4-wire, isolated versions available – Contact Factory)	5=0.5% BFSL* 2=0.2% 1=0.1%	EC1=36" pigtail EC2=DIN 43650 with mate-Large EC3=Mini DIN EC4=Bendix 6-pin EC9=1/2" NPT conduit connection with 36" leads

*BFSL = Best Full Scale Line

Dimensions

(For reference only. Actual dimensions may vary)



For pressure ranges below 300 PSI, the "L" dimension is 4.20"

Current Output

Wiring	4-20mA, DIN 43650
Pin 1	+ excitation
Pin 2	- excitation/signal
Pin 3	no connection
Pin 4	no connection
Power	9-32 Vdc

Wiring	4-20mA, Cable
White	+ excitation
Black	- excitation/signal
Power	9-32 Vdc

Voltage Output

Wiring	Voltage, DIN 43650
Pin 1	+ excitation
Pin 2	- excitation/signal
Pin 3	+ signal
Pin 4	no connection
Output	Power
0-5 Vdc	9-32 Vdc
0-10 Vdc	13-32 Vdc

Wiring	Voltage, Cable
Red	+ excitation
Green	+ signal
Black	- excitation/signal
White	no connection
Output	Power
0-5 Vdc	9-32 Vdc
0-10 Vdc	13-32 Vdc