The TD1200 Series
Ultra High Resolution
Digital Measurement,
General Purpose, Absolute
Pressure Transducer

FEATURES
• Totally digital proprietary design
• Innovative redundant sensing elements
• 24V digital output for pressure or temp switch point
• Spike Monitoring Technology™
• Voltage and current outputs
• 15 to 300 psia absolute pressure ranges available
• Custom pressure Ranges and outputs available
• All stainless steel welded housing
• 0.25% accuracy
• ASIC technology, no zero/span potentiometers
• IP-69K rated seal available (high pressure wash down)
• Innovative low current consumption, ideal for custom wireless solutions
• Programable systems available for OEM/systems integrators for in-house configuring of outputs, ranges and set points to reduce inventory and lead times
• Calibration Certificates available (contact customer service)

DESCRIPTION
The TD1200 Series digital/configurable (an industry first) industrial absolute pressure transducer features stability and accuracy over a wide temperature range at lower cost than competitive units typically not found in older analog designs yet is plug and play with most lower grade competitive units.

With its proprietary digital/ASIC technology, the TD1200 Series features field proven redundant sensing elements without the need for solder in resistors or trim pots that can drift over time. This provides years of excellent performance and reliability even in the harshest/demanding applications. This combined with optional 4x over pressure and the optional integrated temperature or pressure digital switch feature, makes the TD1200 Series truly an industry first and second to none.

For extreme applications where power washers are used for wash down, the TD1200 Series optional IP69K seal, another industry first, makes it ideal no matter what the environment.

With its flexible low power design and lower manufacturing costs, the TD1200 Series offers outstanding value and makes it ideal for custom wireless applications.
INNOVATIVE SENSORS
FOR INDUSTRIAL AND HOME AUTOMATION

ELECTRICAL CONNECTIONS

**MATING CONNECTOR/CABLE**

P/N: TD4P9-00 Mating Connector (ordered separately)

P/N: TD4P9-03M 3 meter molded cable assembly (ordered separately)

Other Lengths Available

Wire Code for Voltage units:
- Red = + Power supply
- Black = Common
- White = Output
- Green = Digital Output (optional)

Wire Code for Current units:
- Red = + Power Supply
- Black = Output

Voltage Units

- Pin 1: +Power Supply
- Pin 2: -Power Supply
- Pin 3: Output
- Pin 4: Digital Output (optional)

Current Units

- Pin 1: +Power Supply
- Pin 2: Output
- Pin 3: N/C
- Pin 4: N/C

**M12 MATING CABLE ASSEMBLIES**

**VOLTAGE OUTPUT TRANSDUCERS ONLY**

M12 with 2 LEDs (green and yellow) Green shows power, Yellow shows digital output

P/N: TDM12-4F69-CR2L-01M 1 meter molded cable assembly

for voltage outputs only

**CURRENT OUTPUT TRANSDUCERS ONLY**

M12 with no LEDs

P/N: TDM12-4F69-CR-01M 1 meter molded cable assembly

for 4-20mA outputs (no digital output available with 4-20mA outputs)

Other Lengths Available

Wire Code for Voltage units:
- Brown = + Power Supply
- White = Output
- Blue = Common
- Black = Digital Output (optional)

Wire Code for Current units:
- Brown = + Power Supply
- Blue = Output

**DIMENSIONS**

- Voltage Unit: 1.90 (49.25)
- Current Unit: 1.38 (35.1)

**DIAGRAMS**

Diagram of Mating Connector/Cable

Diagram of M12 Mating Cable Assemblies

Diagram of Diaphragm selected to meet overload pressure requirements.
SPECIFICATIONS

Performance
Performance @ 25°C (77 °F)
Accur ray
0.25% BFSL - (0-15 psia range with 4-20mA output, 0.5% BFSL)
Overrange Protection
2x Rated Pressure
Pressure Range
15 to 300 psia
Burst Pressure
5x
Pressure Cycles
>100 million
Update Time
<=1msec
Digital Output
Optional digital output for pressure, maintenance or temp switch point (not available on 4-20mA output units), max load current 20mA

Environmental Data
Temperature
Compensated Temperatures
-40° to 100° C (-40 to 212° F)
Operating Temperatures
-40° to 100° C (-40 to 212° F)
Storage
-40° to 125° C (-40° to 250° F)
TEB
0.9% FS
Long Term Drift
0.2% FS/year (non-cumulative)
Shock
100g, 11 ms, 1/2 sine
Vibration
20g, peak, 20 to 2400 Hz
EMI/FRI Protection
Yes
Rating
Up to IP-69K available (high pressure wash down)
Approvals
CE

Mechanical Configuration
Pressure Connections
See ordering chart
Wetted Material
17-4PH stainless steel (for other materials consult factory)
Electrical Connection
9.4 Din, IP-69K 4 pin M12 Connector
Case
(housing) 304 stainless steel

Electrical Data
Excitation
4-28VDC, Typ (must be at least 0.3V above full output voltage), 7.5VDC min for 4-20mA
Output
see ordering chart
Output Impedance
<100 Ohms, Nominal
Current Consumption
25mA max (current output), <5mA (voltage output)
Output Noise
<2mV RMS
Reverse Polarity Protection
Yes
Zero and Span Offset Tolerance
1%
Maintenance Mode
The maintenance mode digital output indicates 1/2 bridge failure and can be selected instead of pressure or temp set point with the designation “M”.
Set Point for Pressure or Temp
For pressure, this is done by selecting a percentage of your transducer’s full range and this will be the set point (40% of a 1000 psi range will have the set point at 400psi) “P40”. For temperature, select your set point in degrees C such as 40° C (104° F) and this will be the set point “T40”. When set point is reached and becomes active there is a digital output on pin 4.

ORDERING

Series
TD1200
Output
BB
Pressure Type
A
Pressure Range
0015
Pressure Connection
03
Electrical Connection
Q00
Accuracy
2
Pressure or Temp
Set Point (P or T), Maint Mode
M - Maintenance Mode
P or T10= 10% of pressure range or 10° C
P or T20= 20% of pressure range or 20° C
P or T30= 30% of pressure range or 30° C
P or T40= 40% of pressure range or 40° C
P or T50= 50% of pressure range or 50° C
P or T60= 60% of pressure range or 60° C
P or T70= 70% of pressure range or 70° C
P or T80= 80% of pressure range or 80° C
P90= 90% of pressure range

TD1200
BB= 4-20mA
CC= 0-5 vdc
DD= 0-10 vdc
HH= 1-5 vdc
JJ= 1-6 vdc
GG= 0.5-5.5 vdc
WW= 0.5-4.5 vdc

**= Consult factory for further options.
Consult factory for quick ship versions.

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PHONE 513-583-9491  WWW.TRANSUDCERSDIRECT.COM  FAX 513-583-9476

All straight-thread O-rings are Viton. It is customer’s responsibility to determine compatibility.

12.18