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

CE

SERIES: TD1200

FEATURES

- Totally digital proprietary design
- Innovative redundent sensing elements
- 24V digital output for pressure or temp switch point
- 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.
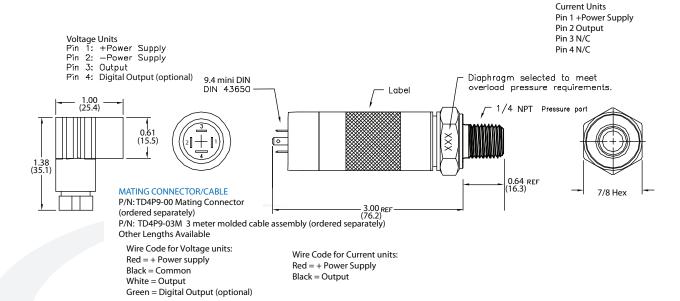
ELECTRICAL CONNECTIONS
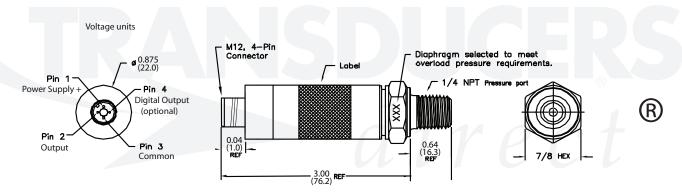
Voltage Units
Pin 1: +Power Supply
Pin 2: −Power Supply
Pin 3: Output
Pin 4: Digital Output (optional)

Current Units
Pin 1 +Power Supply
Pin 2 Output
Pin 3 N/C
Pin 4 N/C

1.00 (25.4)
0.61 (15.5)
1.38 (35.1)

9.4 mini DIN
DIN 43650

Label

Diaphragm selected to meet overload pressure requirements.

1/4 NPT Pressure port

0.64 REF (16.3)

3.00 REF (76.2)

7/8 Hex

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

ø 0.875 (22.0)

Pin 1
Power Supply +

Pin 4
Digital Output (optional)

Pin 2
Output

Pin 3
Common

M12, 4-Pin Connector

Label

Diaphragm selected to meet overload pressure requirements.

1/4 NPT Pressure port

0.04 (1.0) REF

0.64 (16.3) REF

3.00 REF (76.2)

7/8 HEX

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

Current Units
Pin 1 + power Supply
Pin 2 N/C
Pin 3 Output
Pin 4 N/C

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SPECIFICATIONS

Performance	Performance @ 25°C (77 °F)
Accuracy	0.25% BFSL - (0-15 psia range with 4-20mA outupt, 0.5% BFSL)
Overange 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.

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ORDERING

Series	Output	Pressure Type	Pressure Range	Pressure Connection	Electrical Connection	Accuracy	Pressure or Temp Set Point (P or T)
TD1200	BB	A	0015	03	Q00	2	T40

Series	Output	Pressure Type	Pressure Range	Pressure Connection	Electrical Connection	Accuracy	Pressure or Temp Set Point (P or T)
TD1200	BB= 4-20mA	A = Absolute	0015	03= 1/4" NPT Male	Q00= IP69K M12	2 = 0.25%	P or T10= 10% of pressure range or 10° C
	CC= 0-5 vdc		0025	09= 7/16" x 20	D00= 4 pin		P or T20= 20% of pressure range or 20° C
	DD= 0-10 vdc		0050	**	9.4 Mini DIN		P or T30= 30% of pressure range or 30° C
	HH= 1-5 vdc		0100				P or T40= 40% of pressure range or 40° C
	JJ= 1-6 vdc		0150		**		P or T50= 50% of pressure range or 50° C
	GG= 0.5-5.5 vdc		0200				P or T60= 60% of pressure range or 60° C
	(nonratiometric)		0250				P or T70= 70% of pressure range or 70° C
	WW= 0.5-4.5 vdc		0300				P or T80= 80% of pressure range or 80° C
	(nonratiometric)						P90= 90% of pressure range
	**						
							(P= % of the full pressure range selected)
							(T= full temp range of 10 to 80° C)
							**

Pressure, maintenance and temp set points are available with voltage outputs only.