

NEW

The TD1000 Series Ultra High Resolution Digital Measurement, General Purpose, Pressure Transducer

PRELIMINARY

SERIES: TD1000



FEATURES

- Totally digital design / patent pending
- Innovative redundant sensing elements
- 24V digital output for pressure or temp switch point
- Voltage and current outputs
- Custom pressure Ranges and outputs available
- More standard pressure ranges, Industry First
- Optional 4x or 10x over pressure (on most ranges)
- 0.25% and 0.1% accuracy available
- ASIC technology, no zero/span potentiometers
- All stainless steel welded housing
- IP-69K rated seal available (high pressure wash down)
- Innovative low current consumption, ideal for custom wireless solutions
- Programmable 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

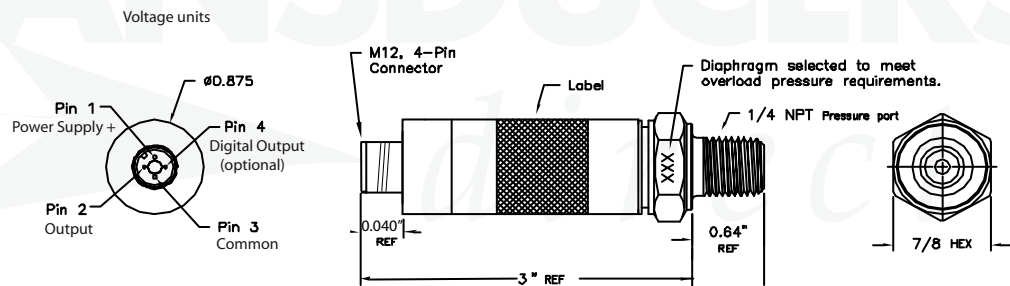
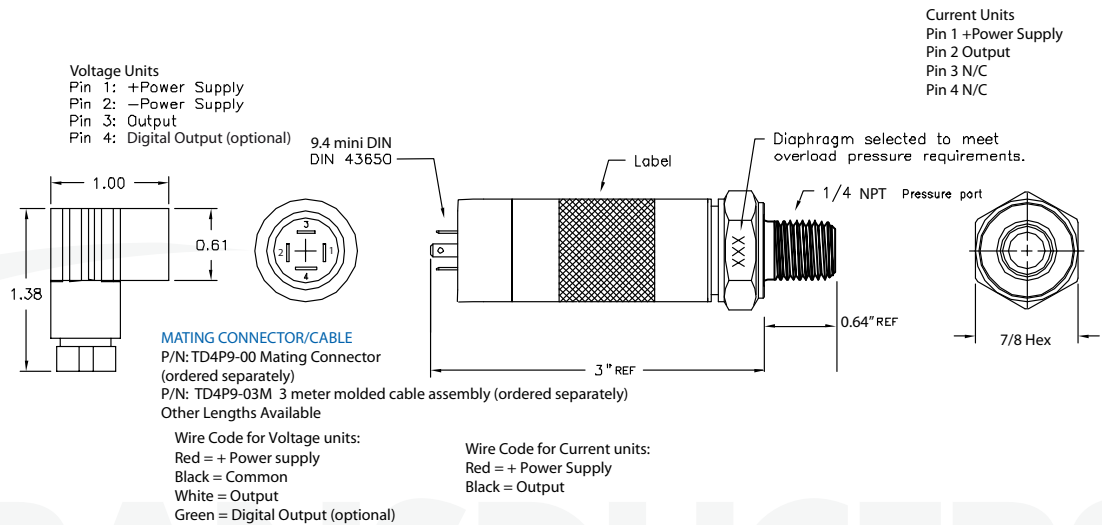
The TD1000 Series digital/configurable (an industry first) industrial pressure transducer features stability and accuracy over a wide temperature range at lower cost than competitive units typically not found in older analog designs yet is plug and play with most lower grade competitive units.

With its patent pending digital/ASIC technology, the TD1000 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 or 10x over pressure and the optional integrated temperature or pressure digital switch feature, makes the TD1000 Series truly an industry first and second to none.

For extreme applications where power washers are used for wash down, the TD1000 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 TD1000 Series offers outstanding value and makes it ideal for custom wireless applications.

ELECTRICAL CONNECTIONS



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

Dimensions In Inches And Are Reference Only.

SPECIFICATIONS

Performance

Accuracy

Overrange Protection

Pressure Range

Burst Pressure

Pressure Cycles

Update Time

Digital Output

Performance @ 25°C (77 °F)

0.25% / 0.1% BFSL(includes: Non-linearity, Hysteresis and Non-repeatability)

2x Rated Pressure or optional 4x and 10x

see ordering chart - up to 6000 psi (690 bar) (optional higher ranges available)

5x or 20,000 psi, whichever is less

>100 million

<=1msec(contact factory for custom updates)

Optional digital output for pressure or temp switch point (not available on 4-20mA output units)

Environmental Data

Temperature

Compensated / Operating

Storage

Thermal Limits

-20° to 85° C (-4 to 185° F) / -40° to 100° C (-40 to 212° F)

-40° to 125° C (-40° to 250° F)

TC Zero <+1.5% of FS

TC Span <+1.5% of 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 pending

Mechanical Configuration

Pressure Connections

See ordering chart

Wetted Material

17-4PH stainless steel (for other materials consult factory)

Electrical Connection

Cable, 9.4 Din, IP-69K 4 pin M12 Connector

Case(housing)

304 stainless steel

Electrical Data

Excitation

10-28VDC, Typ (must be at least 0.5V above full output voltage)

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

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 what percentage of 80° C you want the set point to be (70% of 80° C is 56° C [132.8° F] and this will be the set point) "T70".

ORDERING

Series	Output	Type	Pressure Range	Pressure Port	Electrical Connection	Accuracy	Pressure or Temp Set Point % (P or T)
TD1000	D	G	1000 (psi)	03	Q7	2	T40
TD1000= 2X Over Pressure	B= 4-20ma C= 0-5 vdc	G= Gauge	0015 0900 0025 1000	03= 1/4" NPT Male 09= 7/16" x 20	Q7= IP69K M12 D7= 4 pin Mini 9.4 DIN	2= 0.25% 0= 0.1%	X= no SP P or T10= 10% P or T20= 20% P or T30= 30% P or T40= 40% P or T50= 50% P or T60= 60% P or T70= 70% P or T80= 80% P or T90= 90% (of full range) (full temp range is 0 to 80° C)
TD1004= 4X Over Pressure (up to 5000 psi)	D= 0-10 vdc H= 1-5 vdc J= 1-6 vdc		0050 2000 0100 3000 0150 4000	**	**	**	**
TD1010= 10X Over Pressure (up to 2000 psi)	L= 0.1-10 vdc (4 wire) G= 0.5-5.5 vdc (nonratiometric)		0200 5000 0250 6000 0300 0400				**
	**		0500 0600 0700 0800				**