



The TA-1000 is a precision temperature measuring device which provides a true volume weighted average temperature for two separate channels using a volume input signal and a temperature probe input signal for each channel. The microprocessor controlled TA-1000 automatically calibrates the temperature probe each time temperature is sampled using two internal precision references. This technique eliminates both temperature drift and the requirement for field calibration since the probe

temperature is calculated using a ratio of the probe and internal references in lieu of a fixed voltage or current level. Probe temperature, input counts, total temperatures, average temperature, reset totals, flow rates and alarms are displayed for each channel. An internal lithium battery preserves all data and alarms during battery power failure and continues normal operation when power is restored. A fail-safe alarm relay is provided to shut down external equipment in the event of power failure, alarms, probe failure or microprocessor failure.

COUNT INPUTS

LEVEL: D. C. Dry Contact
A. C. 115 VAC Switched
ISOLATION: 1500 Volts - Optical

TEMPERATURE PROBE INPUTS

Dual Thermister Probe (Standard)
-20° to 150° F Range

TEMPERATURE ACCURACY

Probe Accuracy and Interchangeability
 $\pm .15^\circ$ F over a range of -20° to 150° F
Internal Resolution $\pm 0.01^\circ$ F

OPERATING TEMPERATURES

-10° to 160° F (Standard)
0 to 130° F, 0 to 140° F, 0 to 150° F,
32° to 212° F, 59° to 239° F (Optional)

DISPLAY

16 Character Alpha Numeric
Liquid Crystal with Back Lighting
Total Temperature - 8 Digits
Probe Temperature - 4 Digits
Average Temperature - 4 Digits
Flow Rate Counts per hour
Temperature Resolution - $\pm 0.1^\circ$ F

CONTROLS

Forward/Reverse Switch to Cycle Display
Internal Reset Switch - Alarm/Totals

ALARM RELAY

10 Amp SPDT Dry Contact

COUNT ACCURACY

$\pm 1\%$ of Input Counts

LITHIUM BATTERY LIFE

3 to 5 Years (coin style - replaceable)

SIZE

11.0" H x 8.5" W x 7.0" D

WEIGHT

7.0 Pounds

ENCLOSURE

NEMA 4X Fiberglass (Standard)
NEMA 7 or NEMA 12 (Optional)

POWER REQUIRED

AC or DC
115 VAC 60 Hz .5 Amp or
11 to 15 VDC .6 Amp

DATA STORAGE

MCU-Motorola 68332 @ 20mhz
Program - Non Volatile EPROM 8/1 M
DATA - CMOS RAM w/Battery Backup

COMMUNICATIONS

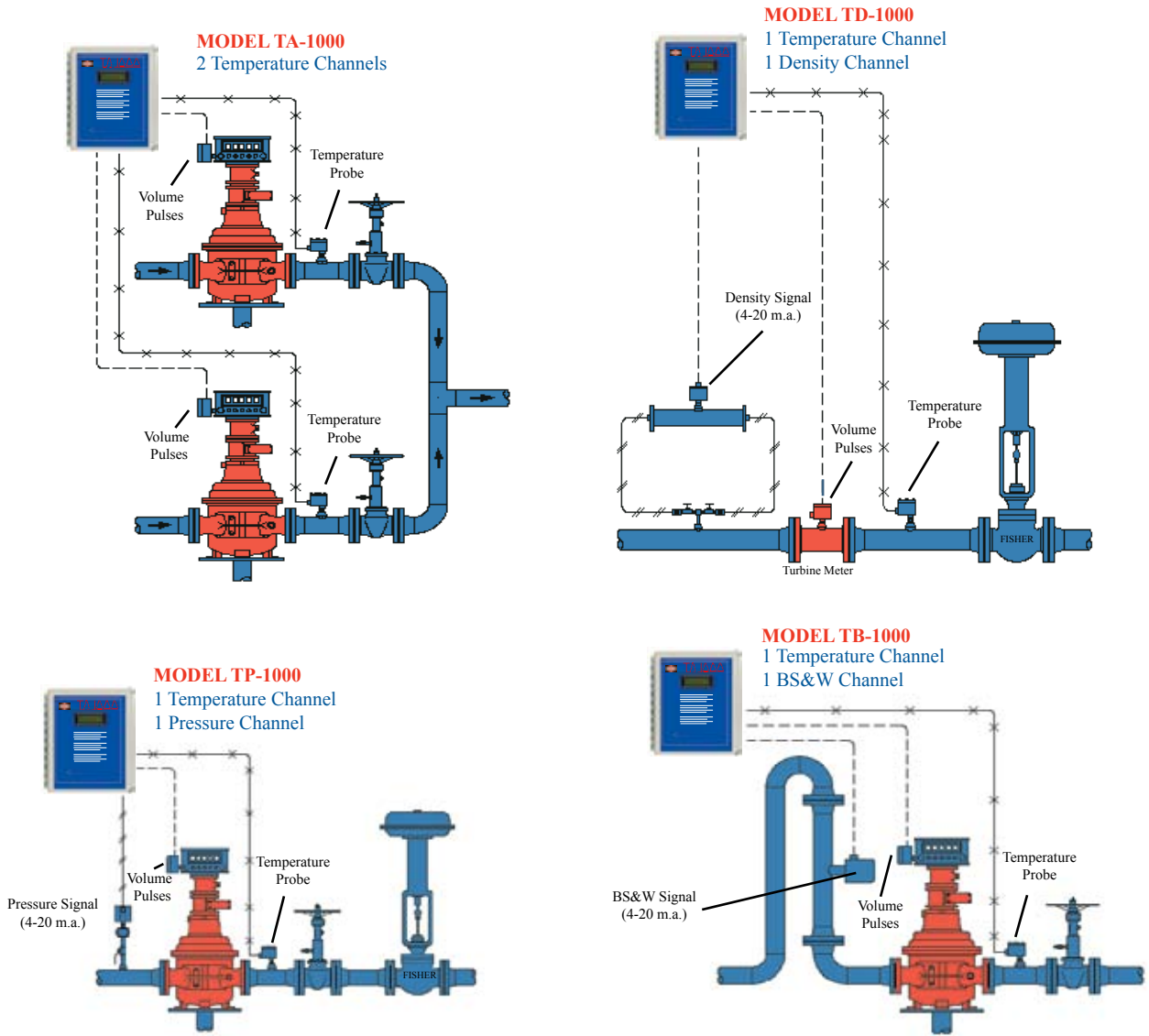
Remote - RS-232 C (Standard)
Custom Software Available

OPTIONS

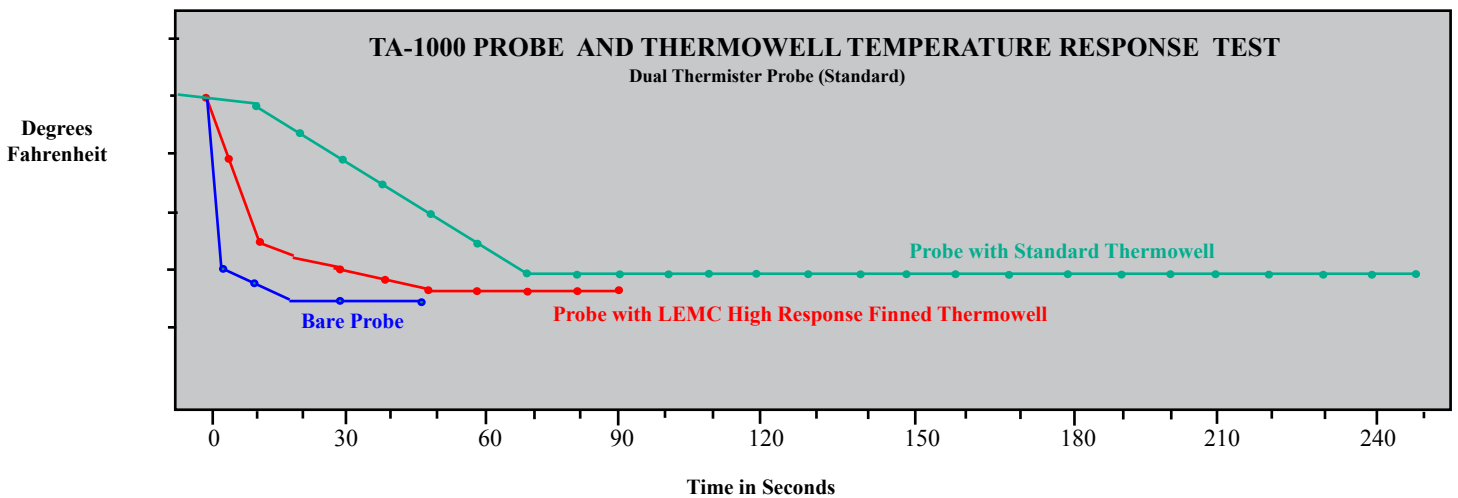
Temperature, Pressure Combination, Printer Output, Communication Formats Available, Extended Temperature Ranges



PIPING SCHEMATICS



TEMPERATURE RESPONSE TEST





LEMC® TA-1000 TEMPERATURE AVERAGER MODEL SPECIFICATIONS

MODEL

TA-1000 Standard 2-Channel Temperature Averager
 TP -1000 Temperature & Pressure Averager
 TD-1000 Temperature & Density Averager
 TB -1000 Temperature & BS&W Averager

CODE ENCLOSURES

4X	Standard Fiberglass - NEMA 4X
7	Explosion Proof - NEMA 7

CODE TEMPERATURE PROBE OPTIONS

A	One (1) Dual Thermister Probe
B	Two (2) Dual Thermister Probes

CODE THERMOWELL OPTIONS (N = quantity)

NG	1/2" NPT x 4" "U" Dimension
NJ	Low Pressure Meter - 2 Hole Plug
NK	High Pressure Meter - 4 Hole Plug

CODE MISCELLANEOUS OPTIONS

AL	Second Alarm Relay
PT	Printer Software Only
PTR	Printer and Software
COM	Communication Option
NPO	Net Pulse Output
BSWC	BS&W Control
CBL1	Cable Communication - RS232C
CBL2	Cable Printer - RS232C
PR4X	Pressure Transducer NEMA 4X
PR7	Pressure Transducer NEMA 7
SPW	Solar Power System
24VDC	24 VDC to 12 VDC Converter
MFX	Meter Factor

TA-1000 4X B 2G 24 VDC

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