DT2000 Strain Gage Indicator

Features:

- The DT2000 is a portable, rechargeable strain gage indicator, which offers excellent stable performance in the measurement of strain
- It can process not only static and dynamic measurements, but also can use in stress analysis and strain gage based transducers
- Actually, the DT2000 is a strain indicator, also could be a signal conditioning amplifier available

Description:

The DT2000 has a high resolution Liquid Crystal Display, auto balance control, accurate peak hold function and high sensitivity analog output, which even includes the unique feature for use in signal conditioning and wide bandwidth amplification in dynamic measurements.

The bridge excitation supply is precisely regulated constant voltage. The battery capacity can be viewed on the LCD display by manual push button, and if the capacity is lower than operation condition, the LCD will show "Low Battery" automatically while the DT2000 is on.

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Specification:

- Display
  - Liquid crystal display : ± 1.9.9.9.9 counts
- Strain Gage Range
  - ±19999με, 10 ≥ G.F. > 0.4, Multiplier ×1
  - ±199990με, 10 ≥ G.F. > 0.4, Multiplier ×10
- Transducer Range
  - 2.0 ~ 50 mV/V for full-scale indication (± 1.9.9.9.9 counts), Multiplier ×1
  - 20 ~ 500 mV/V for full-scale indication (± 1.9.9.9.9 counts), Multiplier ×10
- Accuracy
  - ± 0.05% Reading ± 4με for G.F. > 1, Multiplier ×1
  - ± 0.03% Reading ± 10με for G.F. > 1, Multiplier ×10
- Auto Balance
  - Range : ± 16000με
  - Resolution : 0.5με
  - Accuracy : ± 3με
  - Time : 8 seconds max
  - Memory : lithium battery 3 V
- Gage Factory
  - Range : 0.4 ~ 100 for full-scale indication
  - Transducer : 2.0 ~ 500 mV/V
- Constance Voltage Excitation
  - Range : 1, 2, 5 ± 0.1% Vdc Ground balance driver, 100mA
  - Noise : ≤10μVp-p
  - Remote sense : excitation error less than 0.0005%/Ω of lead resistance
  - Temperature stability : ± 0.001% /°C
- Amperfilier
  - Temperature effect on zero ± 1.0μV/°C rti Max
  - Temperature effect on span ± 0.005%/°C Max
  - Warm - up drift : less than ± 3 counts at G.F. = 2
- Frequency Response
  - DC TO 120 KHz
- Filter
  - Four-pole base low-pass filter
  - Selectable : 50 / 500 / 5 KHz ± 0.2dB
- Analog Output
  - Linear output: ± 5.0V, Max
  - Adjustable from 100μV/counts ~ 1mV/counts
  - Output load: 200Ω Max
- Noise
  - ± 4 Counts, at 50 Hz BW
  - ± 50 Counts, at 120 KHz BW
- Shunt Calibration
  Three internal shunt calibration resistors ± 0.01%
  - 120Ω Gages: 5000με
  - 350Ω Gages: 5000με
  - 1000Ω Gages: 1000με
- Input Circuit
  - Configuration 2 to 6 wires plus grand-shield to accept 1/4, 1/2, Full bridge strain gages or transducer
  - Internal half bridge 120Ω, 350Ω, 1000Ω completion gages
- Peak Hold
  - Accuracy : ± 0.1% , ± 4% counts.
  - Response 8μsec at B.W. 120KHz
  - Hold stability : 5 counts/minute max. (25°C)
- Recharge Batteries
  - Maintenance-free np12-1.2 ah lead-acid batteries 2 sets
  - Charging time 4 hours. Operation time 6~12 hours
- Power Requirement
  - 110/220Vac ± 10% by slide switch 50 or 60 Hz , 10VA Max
- Size & Weight
  - 6" × 7" × 5"
  - 3.0 Kg
- Environmental
  - Temperature : operating -10°C ~ 60°C
  - Humidity : to 95%