



## RT2 Rotary Torque-Power Indicator



### Features:

- DC Bridge excitation, selectable + 2.5, + 5Vdc
- Dual display of HORSEPOWER, TORQUE & RPM
- Engineering unit scaling
- One input channel
- Direct reading LCD display
- Full bridge and half circuits
- Bridge resistance 60  $\Omega$  ~10k  $\Omega$
- Automatic zero-balancing and calibration
- 16-Bits analog output
- Friendly intuitive, menu-driven operations
- EIA-RS-232C datum link
- Line-voltage power
- Keypad operable
- Rugged, portable and lightweight

### Applications:

- Rotary Torque Sensor
- Dynamometer Test
- Power Test
- Torque Indicator
- Load Cell Indicator
- Force Indicator
- Pressure Indicator

### Description:

RT2 Rotary Torque-Power Indicator is an economical instrument with high accuracy and multiple functions.

It is a Rotary Torque-Power that also function as a Strain Gage Transducer Indicator.

If used as a Strain Gage Transducer Indicator, there are 24 bits A/D converts to make the measurement.

The Model RT2 supplies DC bridge excitation. It is a series of versatile instruments for use with strain gage transducers of all types except those involving transformer coupling of the bridge (as with rotary transformer torque sensors).

Rugged, stable noise free display and analog output for general industrial and laboratory use on circuit design and mechanical construction is provided.



## RT2 Rotary Torque-Power Indicator

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Strain Gage Indicator

### Specification:

- **Hardware Specifications**

All specifications nominal or typical at +23° C unless otherwise noted

  - **Inputs**

Highly reliable gold plated binding post terminal accept independent bridge inputs.  
Accommodates 16-30 AWG ( 1.5 to 0.14 mm diameter ) wire.
  - **Bridge Configurations**

half-bridge and full-bridge circuits,  
60 Ω to 10 k Ω half- or full-bridge
- **Display**

Full dot-matrix structure with 2 Row × 8 Characters dots FSTN positive, gray translucence LCD with backlight. Display update is twice per second.
- **Data Conversion**

24 Bits high-resolution sigma-delta converter.  
50 Hz and 60 Hz noise rejection.
- **Accuracy**

± 0.1% of reading ± 3 counts.
- **Measurable Range mV/V Settings**

Range 0.500 to 10.000
- **Pick Up Rotary Sensor Sensors Settings**

Pick Up sensor, 10~300 P/R, Input 10~300Vpp
- **Optical Shaft Encoder Rotary Sensor Sensors Settings**

Encoder 30~600 P/R, TTL Input  
Supply sensor power 5 / 12V, 100mA Max
- **Balance**

Single key operation to initiate automatic software balance
- **Bridge Excitation**

2.5 / 5 VDC ± 1mV%
- **Analog Output**

16-Bits DAC, Output ± 4.5V, Data rate 2 Hz
- **Communication Interface**

EIA-RS-232C Serial Bus with type D connector.  
Used for transferring data and firmware.
- **Calibration**

Remote shunt calibration supported via accessible switch contacts at input female D-sub.
- **Power Requirement**

110 or 220 VAC ± 10% by switch, 50 or 60 Hz, 0.5 A
- **Dimension & Weight**
  - 6.3" X 6.3" X 2.4" ( 160 mm X 160 mm X 60 mm )
  - 2.6 Lb ( 1.2 Kg )
- **Operational Environment**
  - Operating temperature: -10° C ~ 60° C
  - Storage temperature: -20° C ~ 70° C
  - Humidity: Below 95% RH, non-condensing
- **Firmware Specifications**
  - **Display Update Rate**
    - 2 readings per second
  - **Scaling**

Automatic calculation of mV/V.  
Linear scaling for other engineering units
  - **Units**

Torque, Rotary Speed, Power
  - **Balance**
    - Automatic
    - Manual offset adjustment
- **RT2 Data Logger RS-232**
  - Works up to 8 units RT2
  - EIA-RS-232C datum link
  - Real Time Chart
  - Save Data File to Excel \*.csv format
  - Freeware