

# 2620T/2635T Recording Thermometers

## Technical Data

### Product description

The Fluke 2635T and 2620T Recording Thermometers are precision multi channel temperature recording and logging instruments that deliver up to 0.1 degree accuracy (3 sigma, one year accuracy specification\*) for temperature monitoring and calibration applications. Based on Fluke's popular 20 channel, new Hydra™ Series II data loggers, these units are matched with a precision PRT (Platinum Resistance Thermometer) probe on channel one and calibrated as a system for maximum accuracy and precision. Each unit is delivered with current calibration data, ready for use.

These recording thermometers include a NIST traceable and DKD certified calibration (with certificate) that covers the Hydra Series II and probe as a system from -50 °C to +150 °C. A soft protective case is supplied to protect the probe when not in use.

Hydra Logger Software is also included with each unit for support of basic data collection and easy instrument configuration. Optional Trend Link™ for Fluke trending software (model 2600A-904) is also available for electronic chart recording display and analysis.

In addition to being a precision thermometer, both models are capable of measuring up to 18 additional channels of thermocouple, dc and ac volts, frequency, and 2-wire ohms. A total of 10 RTD probes can be connected and recorded at one time.



For more information and specifications on the Hydra Series II, please request the data acquisition product brochure and detailed data sheet. This information may be obtained by calling 1-800-44-FLUKE, or your local representative.

### Fluke 2635T

The 2635T is based on a Fluke Hydra Series II Data Bucket™ Data Logger which uses a PCMCIA memory card (256K) for storage of time stamped data. Data files may be imported to any standard spread sheet for analysis and documentation. The 2635A user's manual (PN 932160) reflects all operational specifications and unit information except the 2635T's special calibration data, which is specific to each unit.

### Fluke 2620T

The Fluke 2620T is based on the Hydra model 2620A data acquisition unit. This unit passes data directly to an attendant computer for real time collection and data storage using supplied software. The 2620T may also be monitored from the front panel display without being connected to a computer.

### 2600A-101 PRT Probe

EXTRA temperature probe: 2600A-101 is a working standard, 4-wire .385 platinum 100 ohm RTD probe. Length 12 in (30.5 cm); diameter 0.25 in (6 mm), with an integral handle and 6 ft (1.8 m) PTFE jacketed wire. Working range; -200 °C to +660 °C with calibration.

## Probe hook up diagram:

The probe connects to channel 1(input) and 11(excitation) on the Hydra input connector.

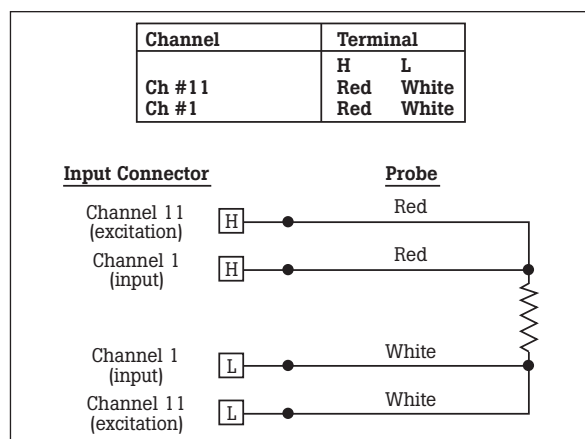


Figure 1.



Input connector and probe assembly.

## Thermometer accuracy specifications

Temp.	Probe Uncertainty	2635T Uncertainty 90 day	2635T Uncertainty 1 year	2620T Uncertainty 90 day	2620T Uncertainty 1 year
-196 °C	+/- 0.003	+/- 0.05	+/- 0.10	+/- 0.13	+/- 0.14
0 °C	+/- 0.005	+/- 0.09	+/- 0.12	+/- 0.09	+/- 0.12
100 °C	+/- 0.005	+/- 0.10	+/- 0.13	+/- 0.12	+/- 0.15
200 °C	+/- 0.005	+/- 0.12	+/- 0.15	+/- 0.18	+/- 0.20
300 °C	+/- 0.006	+/- 0.14	+/- 0.17	+/- 0.22	+/- 0.24
400 °C	+/- 0.006	+/- 0.16	+/- 0.19	+/- 0.30	+/- 0.35

1 year, 18 ° to 28 ° ambient, slow measurement rate. IEC 751 Amendment 2 (ITS90); 2635A algorithms are based on ITS90; 2620A algorithms are based on IPTS68.

**\*Specification Note:** All specifications are based on 3 standard deviations from nominal value (3 Sigma). Actual measured point values are often ten times better than published specifications.

## Models

Product	Description
2620T	Recording Thermometer with Probe and Software; Calibration Certificate for -50 °C to +150 °C
2635T	Recording Thermometer with Probe, Software and 256K PC memory card; Calibration Certificate for -50 °C to +150 °C
2600A-101	EXTRA SPRT probe, 100 Ohm PT, Probe with soft case only; Calibration Certificate for -200 °C to +650 °C

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**Warning** - Probe handle surfaces are conductive. Use caution near electric circuits. Voltage levels above 30 V rms, 42 V peak, or 60 V dc should not be applied to the probe.