

Digi-SENSE® 12-Channel Scanning Thermometers

Store and recall up to 4680 sets of readings with time and date stamp

Automatically or manually display, record, and output temperature readings

Field calibrate each probe separately—achieve accuracies of ±0.1% of reading!

Bidirectional RS-232 for setup or PC datalogging

These 12-channel scanning thermometers are your best choice when simultaneous monitoring of temperatures during different processes or phases is critical. Benchtop unit accepts most any power source giving you great flexibility as to where and when it may be used. Wall-mount unit is ideal for permanent installation and continuous monitoring of your processes. Both models function as a datalogger—store data in nonvolatile memory and later download to your printer or PC. Link up to eight of either model in series to expand the number of channels you can scan for a maximum of 96 channels. Each of the 12 thermocouple inputs are programmable to scan from every four seconds to every hour. Graph in real time—use CD-ROM software (included). Includes a real-time clock and nonvolatile memory. RF immunity—maintains accuracy in RF fields.

Benchtop Thermometer—Parallel printer connection allows you to connect the thermometer to a printer—make a hard copy of your data as a permanent record. Power unit with included 115 VAC or 230 VAC adapter or use with any 10 to 28 VDC or 7 to 20 VAC 500 mA power supply. Accepts thermocouple probes with miniconnectors for quick and easy probe changes. Probes sold separately on pages 7-10 or 21.

Wall-Mount Thermometer—Use high and low relays for on/off control; relays are rated at 115 VAC, 2 A resistive; 250 VAC, 2 A resistive; or 30 VDC 2 A resistive. Features an easy-to-view dripproof housing with all wire connections on bottom. Wall-mount models accept thermocouple probes with stripped ends (wire sold separately on page 10). Power unit with 90 to 240 VAC, 50/60 Hz.

Instrument Features for Both Models—Scan and log up to 12 thermocouple inputs from any combination of type J, K, T, E, N, B, R, and S thermocouple probes. All thermocouple types are individually selectable per channel. Records temperature data sequentially so that process variations and thermal profiling can be monitored. Datalogging feature automatically stores up to 4680 sets of readings and then allows the data to be downloaded to a computer. Up to eight units can be linked together for a maximum channel capacity of 96.

The easy-to-use front panel menu keys allow the user to program datalogging and print intervals, scan rates, date and time, temperature scales (°F, C, K, or R), resolution (0.1° or 1°), channels displayed, thermocouple type, and data output parameters. Each channel features HOLD, STORE, MIN and MAX, RECALL, and AVERAGE buttons. All channels can be calibrated in the field at one or two points to ensure accuracy.

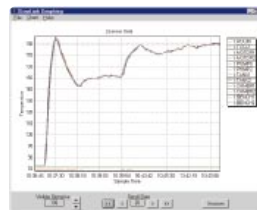
Multiple Safety Features—Thermocouple probes are electrically isolated from each other and data outputs to provide safe and accurate measurements even when probes are exposed to harsh electrical conditions. Each channel offers high and low audible alarm selectable set points.



Benchtop 12-channel scanning thermometer

Physical Features—Easy-to-read, ¾" high, 14-segment, 12-character alphanumeric LCD indicates channel number or name, temperature reading, temperature scale, open probe conditions, and out-of-range readings.

Computer/Printer Capabilities—RS-232 serial communication compatible. Software allows data to be downloaded to a computer and then displayed in real-time tabular or graphical format (software and cable included). Optional printer cable (sold separately on page 21) enables scanner (benchtop model only) to be connected directly to a printer, without using a computer. Datalogging and printing intervals can be set from four seconds to 99 minutes, 59 seconds.



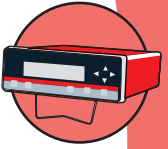
Live, real-time graphs auto-adjust the time on the Y-axis.



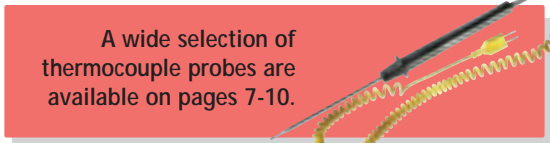
View channel temperature—push the "virtual buttons" to change thermometer functions

FREE Real-Time Logging Software

Each unit includes FREE Windows® 95/98NT/2000/XP-compatible software on CD-ROM that controls and displays up to 12 scanners simultaneously. Logged data may be saved to a file and imported into spreadsheet or word processor. Live updating graph shows time and temperature!



Back view of benchtop model; accepts any thermocouple probe with ANSI miniconnectors.



A wide selection of thermocouple probes are available on pages 7-10.



Wall-mount 12-channel scanning thermometer

Specifications

Input type and range

- J: -392 to 1832°F (-200 to 1000°C)
- K: -418 to 2501°F (-250 to 1372°C)
- T: -418 to 752°F (-250 to 400°C)
- E: -418 to 1832°F (-250 to 1000°C)
- N: -418 to 2372°F (-250 to 1300°C)
- R: 32 to 3214°F (0 to 1768°C)
- S: 32 to 3214°F (0 to 1768°C)
- B: 392 to 3272°F (200 to 1800°C)

Accuracy

J, K, T, E, N: $\pm 0.8^\circ\text{F}$ ($\pm 0.5^\circ\text{C}$), and $\pm 0.1\%$ of reading above -238°F (-150°C), $\pm 2^\circ\text{F}$ ($\pm 1^\circ\text{C}$), and $\pm 0.25\%$ of reading below -238°F (-150°C)

R, S, B: $\pm 4^\circ\text{F}$ ($\pm 2^\circ\text{C}$) $\pm 0.1\%$ of reading

Resolution: 0.1°/1° selectable up to 999.9°; 1° above 1000°; autorange to 1° below -150°C

Display: 12-character alphanumeric LCD

Display update rate: 3 seconds/channel

Scan rate: from 4 seconds to 99 minutes, 59 seconds

Alarm output (Wall-mount model only): SPDT high/low relays are rated at 250 VAC 2A or 2A at 30 VDC resistive.

Digital output

Both models: RS-232, ASCII format, baud rate 19.2 K, RJ11 connector;
Benchtop model only: Centronics parallel printer output; DB25F connector

Dimensions

Benchtop: 10½"W x 3½"H x 7½"D (26.7 x 8.9 x 19.1 cm)
Wall-mount: 8½"W x 11¼"H x 5½"D (21.6 x 28.6 x 14 cm)

Power

Benchtop: 115 or 230 VAC, 10 to 28 VDC, or 7 to 20 VAC 500 mA
Wall-mount: 115 or 230 VAC, 90 to 240 VAC, 50/60 Hz



Ordering Information



Catalog number	Description	Included power supply
WD-69200-00		115 VAC, 50/60 Hz
WD-69202-30	12-channel benchtop	230 VAC, 50/60 Hz
WD-69210-00		115 VAC, 50/60 Hz
WD-69212-30	12-channel wall-mount	230 VAC, 50/60 Hz

WD-22050-04 Parallel printer cable for benchtop model only, 36M/DB25M

INNOCAL®
INNOVATIVE CALIBRATION SOLUTIONS

To order a NIST-traceable calibration certificate with your 12-channel scanner, see page 1.

Accessories



08516-55



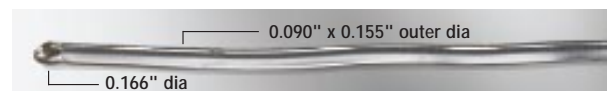
General-purpose tip

Probes with miniconnectors have grounded junction, 316 SS sheath, and glass-filled nylon handle that measures 5.5"L. Handles feature relief spring that protects the cable connection against damage due to repeated flexing and tugging. Include 5-ft coiled cable. For more details on these probes and other probes, see pages 7-10.

Catalog number	Type	Temperature range
WD-08517-55	J	-310 to 1400°F (-190 to 760°C)
WD-08516-55	K	-418 to 1652°F (-250 to 900°C)
WD-08500-55	T	-418 to 752°F (-250 to 400°C)
WD-08512-55	E	-418 to 1600°F (-250 to 871°C)

Flexible Insulated-Wire Probes

PVC insulated probes feature a PVC-coated tip, 10-ft flexible 20-gauge (0.032" dia) wire, and miniconnector. No handle is included. Short-term immersible. Ungrounded junction. Response time is 25 sec.



Catalog number	Type	Temperature range
WD-08466-02	J	-310 to 221°F (-190 to 105°C)
WD-08466-04	K	-418 to 221°F (-250 to 105°C)
WD-08466-06	T	-418 to 221°F (-250 to 105°C)