

## Digi-SENSE® Benchtop Humidity/Temperature Logger



► Log up to 850 sets of data including humidity/temperature, dew point/temperature, or two-channel temperature in real time

**Logger 91090-00 with mounting bracket 91090-60 and probe 37000-52.**

Use this Digi-Sense benchtop logger almost anywhere to monitor humidity and temperature. Logger stores up to 850 sets of readings and operates in three modes: humidity/temperature, dew point/temperature, and two-channel temperature. Dual LCD shows scale and mode selected.

Nonvolatile memory stores setup conditions (RS-232, log start time, log interval, number of readings, °F or °C, resolution, probe type, probe calibration, analog output scaling, time, month, day, and year). Display maximum/minimum values with the PEAK/VALLEY keys. Log readings manually or store them at intervals ranging from 1 second to 99 minutes, 59 seconds. Other features include automatic field calibration and serial input/output for data transfer.

In the humidity/temperature mode, the logger accepts one RH/temperature probe (choose from two probes at right) and displays both RH and temperature. Order an L-shaped mounting bracket to attach either probe to the logger. In the dew point/temperature mode, logger calculates the dew point from the RH and temperature data, and then displays the dew point and temperature.

Logger accepts one or two type J, K, or T thermocouples with miniconnectors. In the two-channel temperature mode, logger displays either simultaneous readings (T1 and T2) or T1 and differential temperature (T1-T2).

Order the optional battery pack 91090-58 for up to 300 hours of continuous use or an optional AC adapter. Order probes, cables, software, accessories, and NIST certification separately at right.

**A-91090-00 Digi-Sense humidity/temperature logger**

### Digi-SENSE® Temperature/Humidity Logger Kit

**Kit includes:** temperature/humidity logger (91090-00), one general-purpose RH/temperature probe (37000-52), one L-shaped RH probe mounting bracket (91090-60), one 10-ft RH probe extension cable (91090-80), two type K thermocouples (08516-82), four AA batteries (09376-01), one wall-mount AC power supply (91090-50), data analysis software (91090-70), and carrying case (91090-90).

**Note:** Order NIST certification and the appropriate cable for sending data to a computer or a printer separately at right.

**A-91090-20 Temperature/humidity logger kit;** 115 VAC, 50/60 Hz. Shpg wt 11 lb (5.0 kg)

**A-91090-90 Carrying case only.** Holds all kit items listed above plus an additional space for the wide-range RH/temperature probe (37000-50). Measures 19.00"W x 14.25"H x 5.25"D. Shpg wt 7 lb (3.2 kg)

### Specifications



With relative humidity/temperature probes			
Probe model	37000-50	37000-52	
RH range	0.0 to 100.0% RH from -22 to 158°F (-30 to 70°C)	5.0 to 95.0% RH from 32 to 122°F (0 to 50°C)	
RH resolution	0.1% or 1% (selectable)		
RH accuracy	±2% RH from 10.0 to 96.0% RH ±3% outside these limits	±2% RH from 10.0 to 90.0% RH ±3% outside these limits	
RH sensor	Thin-film capacitance		
Temp range	-32 to 212°F (0 to 100°C)		
Temp accuracy	±2.7°F (±1.5°C)		
Temp sensor	100 Ω platinum RTD		
Dew point range	-61 to 158°F (-52 to 70°C)	-58 to 122°F (-50 to 50°C)	
With thermocouple probes†			
Type	J	K	T
Range	-310 to 1832°F (-190 to 1000°C)	-418 to 2507°F (-250 to 1375°C)	-418 to 752°F (-250 to 400°C)
Resolution	0.1/1°F or °C (selectable); autoranging to 1° above 999.9°		
Accuracy*	±0.1% of reading or ±0.7°F (±0.4°C) above -238°F (-150°C), ±2°F (±1°C) below -238°F (-150°C)		
General specifications			
Display	Dual LCD: a four-digit, 0.38"H; and a five-character alphanumeric, 0.19"H		
Output	0.0 to 1.0 V analog output of temp and RH; bidirectional RS-232		
Power	Two AA batteries, optional AC adapter, or battery pack		
Battery life	Up to 50 hours continuous use in standby mode, 300 hours with 91090-58		
Dimensions	6.50"W x 3.50"H x 7.75"D		

\*Meter accuracy only.

†See pages 1867-1883 for thermocouple accessories and probes.

### Probes, Cables, Accessories, and NIST Cert

Cat. no.	Description	Shpg wt	Price
<b>Probes</b> (measure 11.1 mm in dia with 5"L handle and 36"L cable)			
<a href="#">A-37000-50</a>	Wide-range RH/temp, 12"L	1 lb (0.5 kg)	
<a href="#">A-37000-52</a>	General-purpose RH/temp, 3¾"L	1 lb (0.5 kg)	
<b>Cables</b> (for sending data to a printer or computer)			
<a href="#">A-92802-50</a>	DB9(F) to DB25(M), for serial printer, 6 ft	1 lb (0.5 kg)	
<a href="#">A-92802-52</a>	DB9(F) to DB9(F), for serial computer port, 6 ft	1 lb (0.5 kg)	
<b>Accessories</b>			
<a href="#">A-91090-60</a>	L-shaped probe bracket for wall or meter mounting	1 lb (0.5 kg)	
<a href="#">A-91090-80</a>	10-ft humidity probe extension cable	1 lb (0.5 kg)	
<a href="#">A-03334-80</a>	133 µm bronze filter for RH probes, measures 0.47" (12 mm) in dia	1 lb (0.5 kg)	
<a href="#">A-37001-80</a>	Calibration salt, 33% RH	1 lb (0.5 kg)	
<a href="#">A-37001-82</a>	Calibration salt, 75% RH	1 lb (0.5 kg)	
<a href="#">A-09376-01</a>	Replacement batteries, AA; pk of 4	1 lb (0.5 kg)	
<a href="#">A-91090-58</a>	Battery pack with 8 C batteries	3 lb (1.4 kg)	
<a href="#">A-09376-02</a>	Repl C batteries for 91090-58, pk of 4	2 lb (0.9 kg)	
<a href="#">A-91090-50</a>	AC adapter; 115 VAC, 50/60 Hz	1 lb (0.5 kg)	
<a href="#">A-91090-55</a>	AC adapter with European plug; 230 VAC, 50/60 Hz	2 lb (0.9 kg)	
<b>NIST Certification</b>			
<a href="#">A-17030-20</a>	NIST-traceable humidity calibration, with data before and after calibration at 30%, 60%, and 90% humidity, 30°C	None	

### Data Analysis Software

Analyze logged data using your IBM® compatible computer (requires 640K RAM). Calculate water-vapor weight/pressure, humidity ratios, specific volume, and enthalpy. Create charts and graphs, download and store real-time data, and configure and check logger setup. Use with CGA, EGA, VGA, and Hercules-compatible monitors. Software on CD-ROM; compatible with Windows® 95, 98, and NT.

**A-91090-70 Data analysis software**