

SK-110TRHII SERIES DIGITAL THERMOHYGROMETER



(No. 8111-00)



(No. 8112-00)

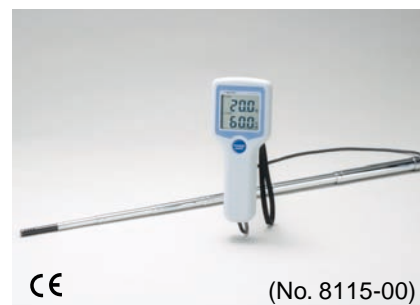
NB: The main body and the probe are unified.



(No. 8113-00)



(No. 8114-00)



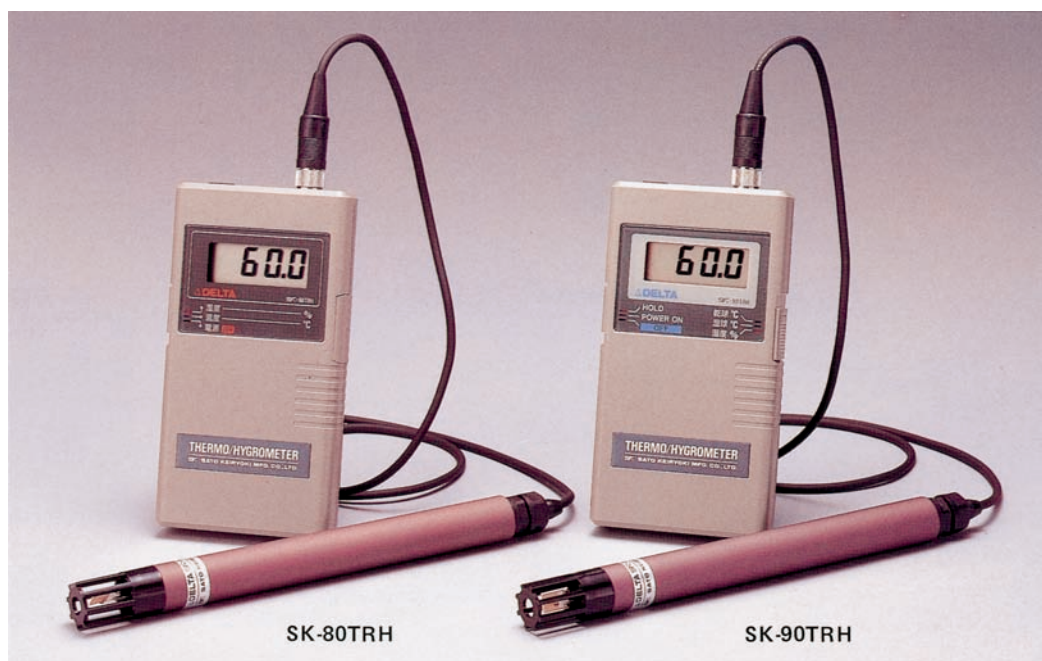
(No. 8115-00)

SPECIFICATION

Cat. No.		8111-00	8112-00	8113-00	8114-00	8115-00
Type		Type 1	Type 2	Type 3	Type 4	Type 5
Measuring range	(temp.)	-10.0 to 60.0°C				
	(humi.)	20.0 to 98.0%				
Display range	(temp.)	-15.0 to 65.0°C				
	(humi.)	0 to 99.9%				
Resolution	(temp.)	0.1°C (but at -10°C or lower: 1°C)				
	(humi.)	0.1% (but at lower than 15%: 1%)				
Accuracy	(temp.)	±0.5°C at 15.0 to 35.0°C ±1°C at other than above				
	(humi.)	±3%rh at 30 to 90% at 15.0 to 35.0°C ±7%rh at at less than .0°C and higher than 50.0°C ±5%rh at other than above				
Sensor	(temp.)	Thermistor				
	(humi.)	High polymeric resistance change type				
Operating ambient		0°C to +50°C, lower than 80%RH, no condensing				
(Probe)		-10°C to +60°C, no condensing				
Sampling time		About 1 sec.				
Display		LCD (temperature and RH are displayed simulataneously)				
Functions		Dual display for R. humidity and temperature B insufficient voltage of battery				
Power requirements		3VDC (2 "AAA" size alkaline batteries)				
Battery life		About 600 hours continuous (w/ alkaline batteries at normal temperature)				
Dimensions	Main body	63 (W) x 174 (H) x 40 (D) mm (Materials: ABC resin)				
	Probe (Grip)	Ø20 x 190 (L) mm				
	(Sensing part)	Ø20 x 35 mm	Ø8 x 353 mm	Ø8 x 338 mm	Ø6 x 1000 mm	Ø(8-18.7) x (350-885) mm
	Probe cord	Ø4 x L1340 mm	Ø4 x L960 mm	Ø4 x L960 mm	Ø4 x L1340 mm	Ø4 x L1350 mm
Weight (approx.)		200 g	270 g	270 g	220 g	250 g
Standard Accessories		A hand strap, 2 alkaline AAA batteries, test report				

No. 8084-00 DIGITAL THERMOHYGROMETER MODEL SK-80TRH

No. 8086-00 DIGITAL THERMOHYGROMETER MODEL SK-90TRH

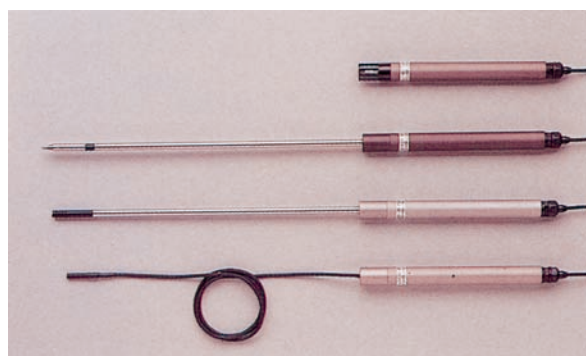


SPECIFICATIONS

Model		SK-80TRH	SK-90TRH
Catalog No.		No. 8084-00	No. 8086-00
Operation ambients		5 to 45°C less than 85%	
Measuring range	(temp.)	-10 to 60°C	(dry bulb temp.) 0 to 60°C (wet bulb temp.) 0 to 60°C
	(humi.)	20 to 99.9% at 23°C	20 to 99.9% at 23°C
Accuracy in measurement	(temp.)	±0.5°C	±0.5°C (wet bulb temp. is developed by calculatoion)
	(humi.)	±2% at 0 to 50°C, 30 to 90%, others: within ±5%	
Repeatability		Within 1%	
Detecting sensors	(tem.)	Highly sensitive thermistor	
	(humi.)	High polymer resistance change type sensor (type HSK-III)	
Resolutions	(temp.)	0.1°C	
	(humi.)	0.1%	
Display method		3 digits LCD	
Hold function		-	Hold each indicated value when hold switch is on.
Display	Temperature, Relative Humidity		Dry bulb temp., Wet bulb temp., Relative Humidity
	L over range (temperature)		
	H over range (either temperature, or humidity)		
	B voltage drop		
	E measured value exceeds operative range		
Power requirements		9 VDC a (006P) battery for continuous 30 hours operation	
Weight		Instrument approx. 200 g, Standard probe approx. 80 g	
Dimensions		Instrument 80 (W) x 156 (H) x 25.5 (D) mm, Standard probe φ20 x 205 (L) mm, Cord 1.5 m	
Standard accessories		SK-80P1 probe x 1, Battery (006P) x 1, Test result, Carrying case, Instruction manual, Glass filter for sensor x 1	

OPTIONAL PROBES FOR DIGITAL THERMOHYGROMETERS

can be interchangeably used on SK-80TRH, SK-90TRH and SK-100THP

No. SK-80P1 Standard probe for general use
φ20 x 35 mm Grip: φ20 x 205 (L) mm Cord: 1.5 mNo. SK-80P2 Penetration probe used for grains and papers
φ8 x 353 mm Grip: φ20 x 207 (L) mm Cord: 1.5 mNo. SK-80P3 Stainless steel probe used for ventilation of airconditioner
φ8 x 338 mm Grip: φ20 x 207 (L) mm Cord: 1.5 mNo. SK-80P4 Flexible probe used at narrow parts
φ6 x 1000 mm Grip: φ20 x 207 (L) mm Cord: 1.5 m

No. 7435-00 MULTIPLE MEASURING SYSTEM FOR TEMPERATURE AND HUMIDITY MODEL SK-5RAD-SP



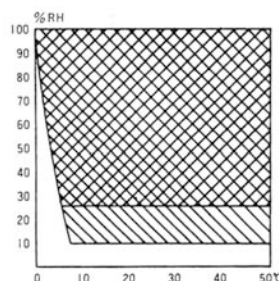
SK-5RAD-SP

FEATURES

- Easy to read by high brightness digital display.
- Assure high accuracy in compact body.
- Eliminate an aging thanks to Pt 100 ohm sensors.
- With error message display functions avoiding possible accident and mis-operation.
- Alarm message "L" is displayed in case of insufficient voltage.
- High accurate sensors ensure accuracy within $0.2\% \pm 1$ digit.

PRINCIPLE OF MEASUREMENT

This model employs 'DRY AND WET BULB METHOD' which has been so called as most stable method for measurement of humidity. The R/V converter inside detects the temperature measured by two Pt 100 ohm sensors and then the data is processed by the micro-computer installed inside so that high accurate relative humidity, absolute humidity and dew point are obtained.



* Measuring range

▨ part and ▩ part are showing the measuring range of HYGRO-STATION.

▨ part shows the range can be measured for continuous long time.

▩ part shows the range can be measured for continuous short time.

SPECIFICATIONS

Model	No. 7435-00 SK-5RAD-SP				
Element	Dry bulb temperature	Wet bulb temperature	Relative humidity	Dew point temperature	Absolute humidity
Measuring range	0 to +50.0°C	0 to +50.0°C	—	—	—
Operating range	—	—	0 to 99.9%	-40 to +50.0°C	0 to 83 g/m ³
Display	7 segment red LED 3 digits	7 segment red LED 3 digits	7 segment red LED 3 digits	7 segment red LED 3 digits	7 segment red LED 2 digits
Resolution	0.1°C	0.1°C	0.1%	-40 to -10°C : 1°C -9.9 to +50°C : 0.1°C	1 g/m ³
Accuracy for measurement	within ±0.2% F.S.	within ±0.2% F.S.	—	—	—
Accuracy for operation	—	—	within ±0.01%	within ±0.01%	within ±0.01%
Accuracy for indication	0.2% F.S. ±1 digit	0.2% F.S. ±1 digit	1% ±1 digit	0.1°C ±1 digit	within 1%
Sampling period for measurement	about 4 seconds				
Detecting element	Pt 100	Pt 100	—	—	—
Output	0 to 50°C / 0—1VDC	—	0 to 100%/ 0—1VDC	—	—
Output impedance	500 Ω	—	500 Ω	—	—
Air-flow speed	more than 3 m/s at a outlet of air-flow				
Ambient	Temperature: 0 to +50°C (wet bulb shall not frozen) Humidity: no condensing				
Power requirements	100 VAC ±10% 50/60 Hz				
Power consumption	100 VAC 0.1A				
Outer dimensions	Indicator: 311 (W) x 192.5 (H) x 144 (D) mm Detector: 80 (W) x 264 (H) x 110 (D) mm				
Weight	Indicator: about 4.5 kg Detector: about 1.5 kg (inclusive of cord)				
Standard accessories	2 m power cord: 1 pc. Wicks: 20 pcs. Remote cord: 10 m (upto 50 m at option) a water supply bottle				

No. 8911/8915 TEMPERATURE/HUMIDITY TRANSMITTER

FEATURES

- Excels in the resistivity against high humidity and high temperature due to the organic high polymer humidity sensor (HSK-III).
- Hysteresis (the reproducibility of humidity sensor) is within $\pm 1\%$ R.H.
- One-chip microcomputer in the circuit covers the temperature compensation over wide range.
- Possible to select output signal at will from 3 kinds of voltage output and electric current output. (SK-RHV-S only)
- Digital data can be transmitted through RS232C at option. (SK-RHV-S only)
- Probe cord can be extended up to 50 meters at option. (SK-RHV-S only)
- Probe and instrument are completely interchangeable.

SPECIFICATIONS

Model	No. 8911 Model SK-RHV	No. 8915 Model SK-RHV-S
Working temp./humid.	-10 to +60°C, less than 95% R.H.	
Measuring range	Temp.: -10 to +60°C R.H.: 25 to 95% (at 25°C)	
Accuracy	Temp.: $\pm 0.5^\circ\text{C}$ R.H.: within $\pm 3\%$ R.H. (0 to 50°C / 25 to 95%) $\pm 5\%$ R.H. (other than above)	
Detecting elements	Temp. Thermister R.H.: High polymer resistance change type (HSK-III)	
Ambient	-10 to +60°C, less than 80% R.H. (no dewing)	
Power source	12 VDC to 24 VDC	100 VAC, 220 VAC or 240 VAC $\pm 10\%$
Transmission Output	1) 0 to 100 mVDC Temp.: -10 to +60 mV (-10 to +60°C) R.H.: 0 to 100 mV (0 to 100% R.H.) 2) 0 to 1 VDC Temp.: -100 to +600 mV (-10 to +60°C) R.H.: 0 to 1 V (0 to 100% R.H.) * Select 1 or 2.	1) Voltage output (output impedance: 5 Kohm) a) 0 to 1 VDC : Temp. : -100 to +600 mV : -10 to +60°C : Humidity : 0 to 1 V : 0 to 100% R.H. b) 0 to 100 mVDC: Temp. : -10 to +60 mV : -10 to +60°C : Humidity : 0 to 100 mV : 0 to 100% R.H. c) 0 to 10 mVDC : Temp. : -1 to +6 mV : -10 to +60°C : Humidity : 0 to 10 mV : 0 to 100% R.H. 2) Electric current output (output impedance: 500 ohm) a) 4 to 20 mADC : Temp. : 4 to 20 mV : -10 to +60°C : Humidity : 4 to 20 mV : 0 to 100% R.H. 3)RS232C (option) Transmission speed : 2,400 bps Number of bid : 8 bids Stop bid : 1 bid
Type of probe	a) Built-in type b) Separate type	Separate type
Dimensions	43 (D) x 100 (W) x 96 (H) mm	Instrument: 22 (D) x 90 (W) x 57 (H) mm
Standard accessories	Probe w/1.5 m cord, glass filter – b) type only	Probe w/5 m cord, glass filter, fittings for probe

APPLICATIONS

