

## USB Connectable Loggers

# TR-76Ui Features and Specs

### Measurement Items

Temperature / Humidity  
CO2 Concentration

### Data Collection

USB Connection,  
Infrared Communica-  
tion

### Data Access

Local PC

### Warning Notification

External Alarm  
Terminal

The TR-76Ui is a three-channel data logger designed to simultaneously measure and record CO2 concentration, temperature and humidity. It includes an atmospheric pressure correction function for more reliable CO2 concentration measurements. The supplied software enables the user to download data recorded by TR-76Ui to PC via USB connection, whereby data from all three channels can be simultaneously viewed in graph or table form.

### Measure and Record CO2, Temperature and Humidity with 1 Logger

With an internal CO2 Sensor, this data logger can simultaneously measure and record all 3 items.

### Large Logging Capacity of 8000 Data Sets

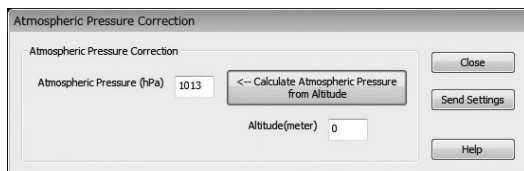
Record up to 8,000 sets of data of all three measurement channels.

### View All Data in One Graph

The supplied software enables viewing of all three measurement items in one graph or one list. Easy to print and export data in text format (CSV).

### Correction for Atmospheric Pressure

This function enables the calculation of atmospheric pressure from the altitude at the measurement location; and then corrects for measurement errors due to atmospheric pressure.



### Warnings via Output Contact

If a preset limit is exceeded a warning can be issued using the output contact. This can be used in conjunction with external devices such as a ventilation device, siren or alarm.

\* The JST Connector PAP-04V-S (sold separately) is necessary.

### Simple, Direct USB Connection

Settings and downloading can easily be done via PC.

It is also possible to monitor current readings from the TR-76Ui connected to your PC.

### Easy Operation via Buttons

From the buttons on the logger face you can start and stop recording, make recording interval changes and switch display settings.

### Measure and Record Temperature and Humidity in a Wider Range with Greater Accuracy

The supplied sensor for the S model provides higher accuracy to  $\pm 2.5\%RH$

Measurement Range for temperature is  $-20$  to  $70^{\circ}C$  and  $0$  to  $99\%RH$  for humidity.

### Download Data via Infrared Communication

It is possible to use with Data Collector TR-57DCi.

## TR-76Ui Specifications

	TR-76Ui		TR-76Ui-S	
Temperature-Humidity Sensor				
Measurement Channels	Temperature 1ch	Humidity 1ch	Temperature 1ch	Humidity 1ch
Sensor	THA-3001		SHA-3151 High-Precision Type	
	Thermistor	Polymer Resistance	Thermistor	Polymer Resistance
Measurement Units	°C, °F	%RH	°C, °F	%RH
Measurement Range (*1)	0 to 55 °C	10 to 95%RH	-25 to 70 °C	0 to 99 %RH (*2)
Accuracy	±0.5 °C	5 %RH at 25 °C, 50 %RH	±0.3°C at 10 to 40 °C ±0.5°C all other temperatures	±2.5 %RH at 15 to 35 °C, 30 to 80 %RH
Measurement Resolution	0.1 °C	1 %RH	0.1 °C	0.1 %RH
Responsiveness	Response Time (90%): Approx. 7 min.		Response Time (90%): Approx. 7 min.	
CO2 Sensor (Internal)				
Measurement Channels	CO2 Concentration 1ch			
Sensor	NDIR			
Measurement Units	ppm			
Measurement Range	0 to 9,999 ppm			
Accuracy	±(50 ppm + 5% of reading) at 5,000 ppm or less (*3)			
Measurement Resolution	Minimum of 1 ppm			
Responsiveness	Response Time (90%): Approx. 1 min.			
Logging Capacity	8,000 data sets (One data set consists of readings for all channels in that type of unit.)			
Recording Interval	Select from 15 choices: 1, 2, 5, 10, 15, 20, 30 sec. or 1, 2, 5, 10, 15, 20, 30, 60 min.			
Recording Mode	Endless (Overwrite oldest data when capacity is full) or One Time (Stop recording when capacity is full)			
LCD Display Items	Measurements, Battery Level, etc. Measurements: CO2 concentration, Temperature or Humidity (fixed or alternating display)			
Communication Interfaces	USB Communication Infrared Communication IrPHY 1.2 low power (*4) Serial Communication RS-232C (*5)			
External Alarm Terminal (*6)	Output Terminal: Open Drain Output (Voltage when OFF: DC less than 30V / Current when ON: less than 0.1A / Resistance when ON: about 15Ω)			
Power	AC Adaptor (AD-06A1 or AD-06C1) , AA Alkaline Battery LR6 x 4			
Battery Life	Approx. 2 days (batteries only without AC adaptor) (*7)			
Dimensions	H 96 mm x W 66 mm x D 46 mm			
Weight	Approx. 120 g			
Operating Environment	Temperature: 0 to 45°C, Humidity: 90 %RH or less (no condensation)			
Accessories	Temperature-Humidity Sensor THA-3001		High Precision Temperature-Humidity Sensor SHA-3151	
	AA Alkaline Battery LR6 x 4, AC Adaptor AD-06A1 or AD-06C1, USB Mini-B Cable US-15C, Software CD-ROM, User's Manual Set (Warranty Included)			

\*1: Make sure to use the data logger within the operating environment as listed in the specifications.

\*2: When continually used in environments with temperatures above 60°C, accuracy of humidity measurements will decrease over time. Also, humidity cannot be measured at temperatures below -20°C.

\*3: Stated value is the measurement accuracy of the CO2 sensor when Auto Calibration is operating properly. A change in atmospheric pressure directly influences the reading of CO2, which can cause measurement errors; a decrease in pressure by 10hPa results in a relative decrease in CO2 by 1.6%. In such a case, we recommend carrying out the "Atmospheric Pressure Correction" function found in CO2 Recorder for Windows.

\*4: If you wish to use infrared communication to download recorded data, it is necessary to purchase the Data Collector TR-57DCi (sold separately).

\*5: Customers wishing to write their own software, please contact your local distributor for the serial communications protocol specifications. (Note: Optional serial communication cable TR-07C is also required.)

\*6: In order to use the external alarm terminal, please prepare a compatible connector: JST PAP-04V-S.

\*7: Battery life varies depending upon multiple factors including ambient temperature, recording interval, frequency of communication, and battery performance. All estimates are based on operations carried out with a new battery and are in no way a guarantee of actual battery life. Battery life may be shortened if the unit is used under inverter type fluorescent lighting.

The specifications listed above are subject to change without notice.

