

# Thermo-Humidity Logger ZN-THX11-SA

CSM\_ZN-THX11-SA\_DS\_E\_2\_1

## Easy temperature and humidity management using an SD card

- Unparalleled measurement accuracy
- A large amount of data can be stored on a single SD card.
- Alarm output for immediate response when trouble occurs
- Bundled with PC software for easy conversions of logging data to graphs.

CE





For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

 Be sure to read "Safety Precautions" on page 3.

## Ordering Information


### Main unit

#### Sensor heads




Appearance	Item	Model
	Sensor head 1.5 m type	ZN-THS11-S
		ZN-THS11C-S *
	Sensor head Anchored type	ZN-THS17-S
		ZN-THS17C-S *

\* Please choose this form when you buy with the calibration certificate.  
Contents of Certificate of Calibration Set: Calibration Certificate, Inspection Result, and Traceability Chart

#### Loggers

Appearance	Item	Model	Power supply
	Logger	ZN-THX11-SA	Battery/DC cable

### Options (Order separately)

Appearance	Item	Model
	Mounting Magnet *	ZN9-EM01-S
	Straight type (ZN9-ED01-S comes with ZN-THX11-SA)	ZN9-ED01-S
	Right angle type	ZN9-ED02-S
	AC Adapter Power supply voltage: 100 to 240 VAC/50 to 60 Hz Operating temperature range: 0 to 40°C	ZN9-ACP01-S

\* When the magnet is used, the vibration resistance becomes 55 Hz or less. (Two logger installation screws are attached.)

### Calibration service

Item	Model
Sensor head 1.5 m type	Calibration Certificate, Inspection Result, Traceability chart ZN-THS11-CAL
Sensor head Anchored type	ZN-THS17-CAL

- Note:**
1. As the sensor head and station are digitally connected, only the sensor head is subject to calibration.
  2. It is necessary to ship the product back to OMRON in Japan.

## Ratings and Specifications

### Sensor head

Item	Model	1.5 m type		Anchored type	
		ZN-THS11-S	ZN-THS11C-S	ZN-THS17-S	ZN-THS17C-S
Temperature	Measurement range	-25 to 60°C		0 to 60°C	
	Measurement precision	±0.3°C (at 25)			
	Resolution	0.1°C			
Relative humidity	Measurement range	0% to 99%		20% to 85%	
	Measurement precision	±2.5% (at 25 , 10 to 85%)			
	Resolution	0.1%			
Weight (packaged)	Approx. 300 g				
Accessories 1	Instruction sheet, Mounting screw (M3 × 8) × 1		Instruction sheet, Mounting screw (M3 × 8) × 1, Caps to secure cable		
Accessories 2	—	Calibration Certificate, Inspection Result Traceability chart		—	Calibration Certificate, Inspection Result Traceability chart

**Note: 1.** As performance may deteriorate through the adhesion of impurities or contaminants in the environment on the sensor surface, calibration is recommended once a year.

- When ZN-THS1□□-S is exposed over a long period of time at a high humidity of 80% or higher, the humidity measurement value may be offset. In that case, expose the product at room temperature and humidity for 24 hours prior to use.
- When ZN-THS1□□-S is transferred rapidly between the places where temperature difference is large, condensation may occur on the sensor surface. In that case, the ZN-THS1□□-S may not work properly. When the product becomes wet due to condensation, allow the product to dry in dry, room temperature environment before use.
- When using the ZN-THS1□□-S under conditions with temperature of -20°C or less or with humidity of 90% or more, acceleration of sensor deterioration may occur.
- To avoid deterioration of sensor, avoid storing the product under high temperature and high humidity for a long period of time.
- Please don't use the product in the environment to which organic chemistry material disperses.

### Logger

Item	Model	ZN-THX11-SA
Sensor that can be connected	Thermo-Humidity Sensor Head (ZN-THS□□-S)	
Display	LCD 7-segment 5-digit 2-step display	
Measurement interval	10 s, 20 s, 30 s, 1 min, 2 min, 5 min, 10 min, 20 min, 30 min, 1 h	
Calculation function	Instantaneous value, maximum value, minimum value, average value	
Operating mode	Normal mode, sleep mode *1	
Recording mode	Continue *2, ring *3	
External output	Alarm output *4 (Photocoupler output)	
Internal storage device	Internal memory: Approx. 8,500 data items	
External storage device	SD card (to save measured values and to save/read set values), Recommended SD card: HMC-SD291 (manufactured by OMRON) *5	
Power supply voltage	DC input: 24 VDC ±10%, AC adapter: 100 to 240 VAC/50 to 60 Hz, Battery: 2 AAA batteries *6	
Battery life	Approx. 1 year *7 (sleep mode, measurement interval of 10 minutes, with 2 AAA nickel metal hydride batteries, with SD card not inserted)	
Operating temperature range	Main unit: 0 to 60°C	
Operating humidity range	20% to 85% (no condensation)	
Weight (packaged)	Approx. 500 g	
Accessories	Instruction Sheet, Startup Guide, Utility disk (CD-ROM) *8, Alarm output connector *9, DC cable (straight type), Ferrite core	

\*1. Power saving mode. The indicator is always OFF in default setting. (Turns ON with button operation.)

\*2. It automatically writes data to the SD card when reaching the upper limit of the internal memory, and keeps recording until the capacity limit of the SD card. If the SD card is not inserted when the internal memory reaches the upper limit, recording stops. (Data can be output to the SD card by pressing the button after inserting the SD card.)

\*3. This mode always records the latest measured values for the upper limit of the internal memory. (When the measured values exceed the upper limit of the internal memory, the data items will be deleted beginning with the oldest data item.)

\*4. An alarm is output when exceeding the upper limit value or lower limit value that has been set in threshold setting mode.

\*5. If you use an SD card from another manufacturer, use an SDHC Class 4 or higher card. (You must confirm the operation of the SD card yourself.)

\*6. Nickel hydride battery and alkaline battery can be used. Manganese batteries cannot be used.

\*7. Battery life differs depending on measurement environment, sampling, operating mode, battery type or performance.

\*8. System Requirements for Enclosed PC Software (Station Utility: Setup Tool, Logging Tool, and SD Viewer ES)

OS: Windows XP / Windows Vista / Windows 7 (64 Bit not supported)

CPU: compatible Intel processors, 1 GHz or higher.

Memory: 1 GB or more (2 GB or more recommended)

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\*9. The connector is type XW4B-02B1-H1, made by OMRON.

## Safety Precautions

### ⚠ WARNING

This product is not designed or rated for ensuring safety of persons either directly or indirectly. Do not use it for such purposes.



For technical information and product FAQs, refer to the “Technical Guide” on your OMRON website.

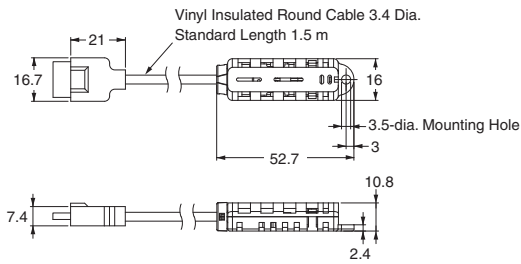
## Dimensions

(Unit: mm)

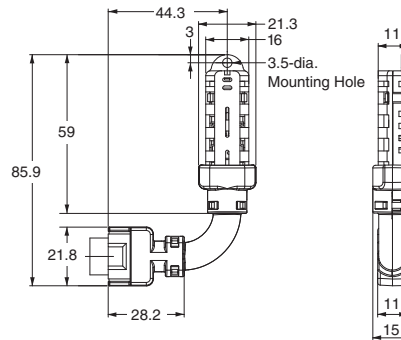
Tolerance class IT16 applies to dimensions in this data sheet unless otherwise specified.

### Sensor head

#### ZN-THS11-S



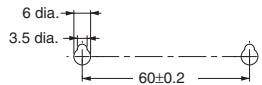
#### ZN-THS17-S



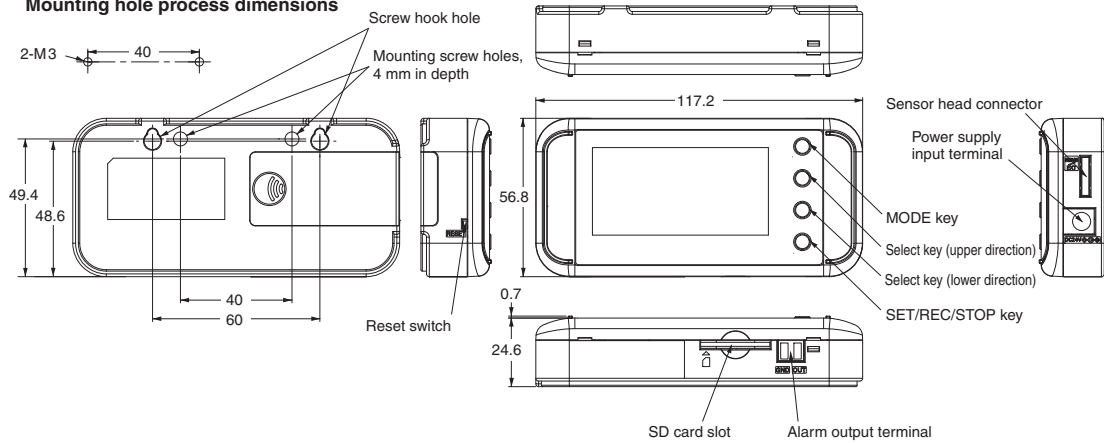
### Logger

#### ZN-THX11-SA

##### Dimensions of screw hook holes

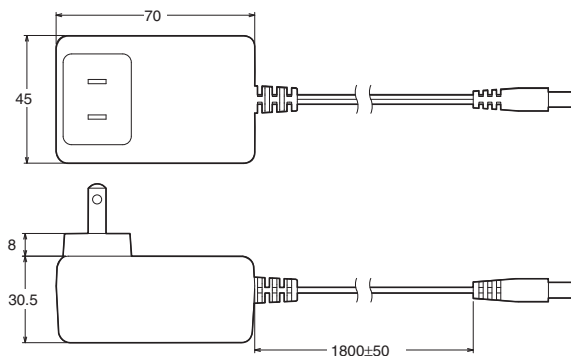


##### Mounting hole process dimensions



### AC adaptor

#### ZN9-ACP01-S



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