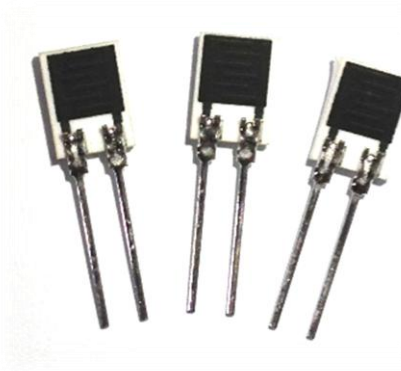


SY-DS-1L

Dew Detecting Sensor

Features

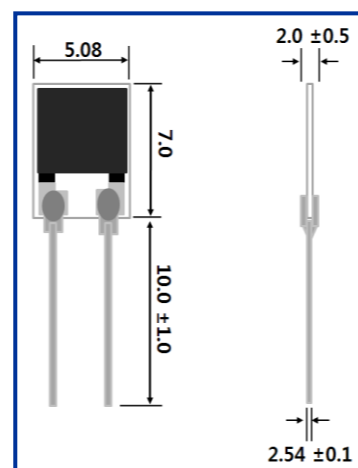
- ♦ Small, Light
- ♦ High sensitivity under high-humidity condition
- ♦ Switching function
- ♦ Quick response
- ♦ High reliability and stability



Application

Electron, pharmaceutical industry, food processing, warehouses, tobacco, textile, weather

Dimensions



Sensor Performance

Electrical Characteristics

Rated voltage	: DC AC 0.8V Max.
Operating temperature range	: 0°C ~ ±60°C
Operating Humidity range	: 0%RH ~ 100%RH
Storage Condition range	: -20°C ~ 85°C
Standard characteristic	: a) 10kΩ Max. at 80%RH b) 100kΩ Max. at 94%RH C) 200kΩ Max. at 98%RH

NO.	Component parts	Material
1	Dew sensor	alumina substrate (t = 0.64 mm)
2	Lead pin	Pb-free Lead pin

Characteristic chart

Basic characteristics

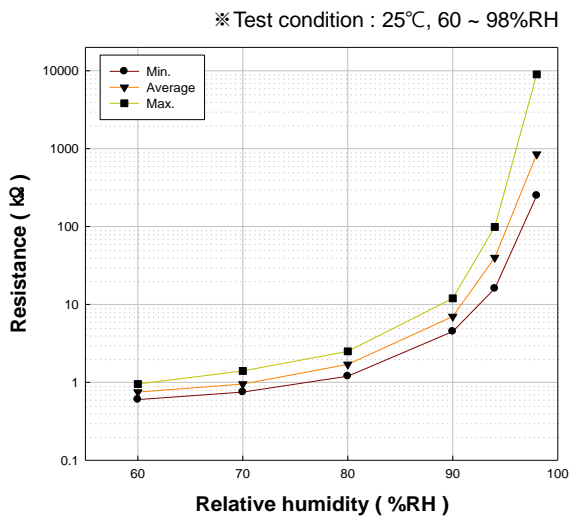


Fig 1. Dew sensor characteristics

Response characteristics

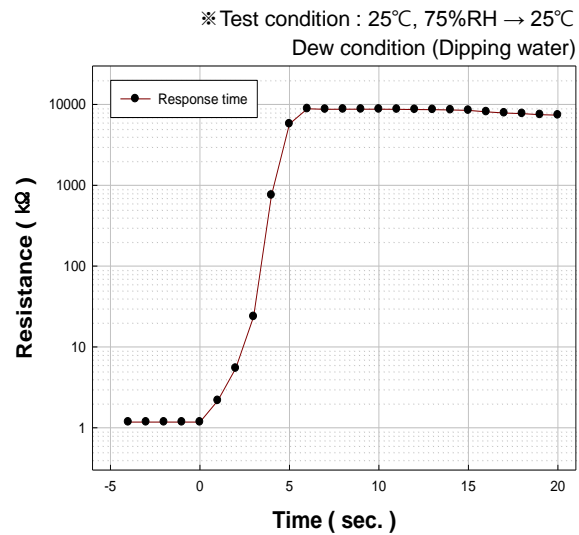


Fig 3. Dew sensor response time

Resistance characteristics at dipping water

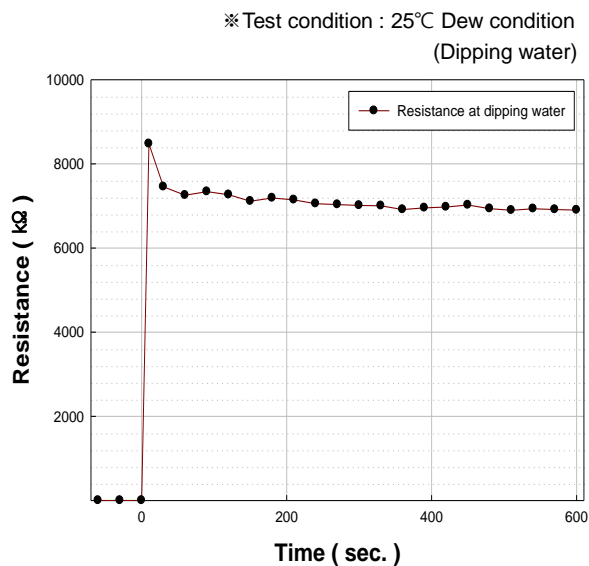


Fig 2. Dew sensor characteristics

Reliability

■ Temperature cycle

Here, one cycle shall be to leave for 30 minutes under -40°C, continue to leave for 30 minutes under +85°C. Temperature changing time is 60 minutes Repeat such 5 cycles. Thereafter, to be satisfied with characteristics specification.

■ Humidity resistance

Leave for 1000 hours in the environment of 40°C and 94%RH. Thereafter, to be satisfied with characteristics specification.

■ High temperature loaded

Load the voltage of DC 0.8V for 1000 hours in the environment of 60°C. Thereafter, to be satisfied with characteristics specification.

■ Dew cycle

Here, one cycle shall be to leave 1 minute under wetting at room temperature, continue to leave for 57 minutes under natural drying at room temperature. Repeat such 50 cycles. Thereafter, to be satisfied with characteristics

■ Humidity loaded

Load the voltage of DC 0.8V for 1000 hours in the environment of 40°C, 90 to 95%RH. Thereafter, to be satisfied with characteristics specification.

■ Heat resistance

Leave for 1000 hours in the environment of 85°C. Thereafter, to be satisfied with characteristics specification.

Remarks on using

■ Protection of humidity sensitive part

- a) Don't scratch it.
- b) Don't touch it with bare hands.
- c) Don't stain it with adhesive agent, flux, grease, oil.
- d) Don't expose it more than 85°C for a long time.
- e) Don't wash it with ionized water.
- f) Don't touch it with organic solvents.

■ Caution in mounting

- a) Don't remount harness or lead pin. It is possible that electrode may be broken.
- b) Don't pull the harness or lead pin powerfully. It is possible that electrode may be stripped off, or lead pin may be torn.
- c) Don't shock and force it. It cracks because sensor board is a ceramics.

Packaging

- **Tray** : 50pcs (190×140×6 mm)
- **Inlet Box** : 20 trays (200×145×75 mm)
- **Outlet Box** : 23 Inlet boxes (650×360×310 mm)