

# TruSense

## Input-Module

# WS-TS

The TruSense Input modules are an I2C based module with memory and the interface to the sensors. When an Input module is connected to a TruSense logger the logger reads the Input Module's memory and this gives the logger all the information on the sensors that may be attached to the module. The WS-TS module is a full Weather Station

The Weather station consists of Wind Speed, Wind Direction, Humidity, Temperature, pressure, Light Energy and Rain.



## Specifications

### Size

Dimensions	970x160x480mm
Material	Aluminium, Plastic and Stainless Steel.

### Wind Speed

Device	3 cup
Measuring Range	1.8 to 216 kph
Measuring interval	3 Seconds
Resolution	1 kph
Starting threshold	<5 kph
Accuracy tolerance	<2% above 36 kph

### Wind Direction

Device	Vane
Range	0° ~ 360°
Accuracy	± 5°
Dead band	20° (350° ~10° )
Electronic damping	about 1° / second

### Solar irradiance (Light Energy)

Device	Photovoltaic cell
Range	0~1500W/m <sup>2</sup>
Resolution	1W/m <sup>2</sup>
Accuracy tolerance	±5%
Operating Range	-10°C to 70°C Ice will effect accuracy.
Temperature coef.	0.15% per 1°C.
Cosine error	Typically less than 3% from vertical to 80° in all directions.

### Environment

Protection	IP56, outdoor use.
Operating Temp.	-10°C to 70°C
Storage temp.	-20°C to 75°C
Parts may stop operating correctly due to freezing below 0°C	

### Temperature

Device	SHT21
Resolution	0.1°C
Accuracy tolerance	±0.3°C
Operating Range	-20°C to 100°C

### Humidity

Device	SHT21
Resolution	0.1%RH
Accuracy tolerance	±2%RH typical
Operating Range	0 to 100%RH

### Pressure

Device	HP203B
Resolution	1hPa(mBar)
Accuracy tolerance	±1.5hPa (0°C to 50°C) ±3hPa (-20°C to 70°C)
Operating Range	700hPa to 1100hPa

### Rain Gauge

Device	Davis Rain Gauge
Resolution	0.2mm rain fall
Accuracy tolerance	±3% of total ± one tip of the spoon.