

Meteorological sensors

Sensors range for meteorological measurements

LSI LASTEM manufactures a wide range of meteorological sensors. The sensors have been developed in compliance to the requirements of the WMO (World Meteorological Organization), having as a target their easy integration within monitoring systems supplied by LSI LASTEM or third parties' system integrators.

More than 30 years of experience in meteorological measurements assure accurate, reliable and robust sensors during their entire operative life even in severe weather conditions.

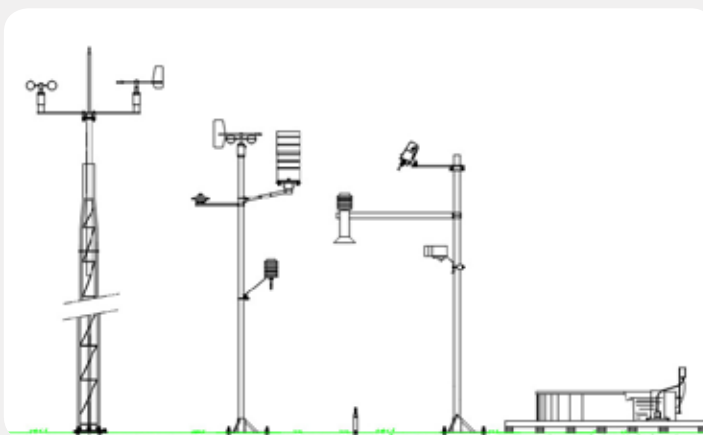


Highlights

- Complete range of meteorological sensors
- High quality standard for accurate and long lasting measurements over the time
- Direct signal output, analogue and digital signal outputs with integrated electronic part
- 4-20 mA, RS485 Modbus-RTU signal outputs
- Easy to install on poles (45-65 mm diameter) using arms and collars
- Wiring connection by connectors
- 5 to 100 m cables length
- Poles and towers availability
- Test Reports and calibration certificates

LSI LASTEM meteorological sensors include sensor body, cable and arm for their connection to poles having 45-65 mm diameter. Sensors are normally mounted on poles of towers. LSI LASTEM supplies a complete set of accessories to produce a complete professional weather system in compliance to WMO standard.

- ▶ AIR TEMPERATURE AND RELATIVE HUMIDITY
- ▶ SOIL TEMPERATURE AND WATER CONTENT
- ▶ WIND SPEED AND DIRECTION
- ▶ SOLAR RADIATION
- ▶ RAIN
- ▶ BAROMETRIC PRESSURE
- ▶ EVAPORATION
- ▶ RADIANT TEMPERATURE
- ▶ VISIBILITY
- ▶ PRESENT WEATHER
- ▶ SNOW LEVEL



▶ **AIR TEMPERATURE AND RELATIVE HUMIDITY**

- RS485 Modbus-RTU output including integrated barometric pressure sensor
- 869 MHz radio output
- Natural and force ventilation radiant screens
- 1/3 DIN temperature accuracy and 1.5% Relative Humidity accuracy
- Dew point calculation
- Fast response time after hygrometric saturation event



▶ **RADIANT TEMPERATURE**

Used to estimate the Mean Radiant Temperature (T_{mrt}) which is one of the most important meteorological parameters governing human energy balance and the thermal comfort of man in micrometeorological measurements.



▶ **WIND SPEED AND WIND DIRECTION**

- Cup&vane anemometers with two classes of features
- 2 and 3 axis ultrasonic anemometers
- Combined cup&vane wind speed&direction sensors
- Combined all-in-one sensor: wind speed and direction, temperature and relative humidity and barometric pressure sensor



▶ **SOLAR RADIATION**

- Secondary standard, First and Second class pyranometers
- Net radiometers
- UV-A, UV-B, PAR, Lux radiometers
- Sunshine duration and direct radiation sensors
- Pyrheliometers (direct radiation sensor)



▶ RAIN

- Class A rain gauge with integrated electronic to maintain the best accuracy even at high intensity rainfall event.
- 0,2 and 0,1 mm resolution
- Heater system
- Rain presence sensor



▶ BAROMETRIC PRESSURE

- 0,3 and 0,5 hPa accuracy
- Selectable range of measurement from 600-700-800 hPa to 1100 hPa
- IP65 protection grade for outdoor installation



▶ EVAPORATION

- Classe A evaporimeter
- Water level sensor optimized for evaporation measurement



▶ SOIL TEMPERATURE AND SOIL WATER CONTENT

- DTR technology for accurate volumetric moisture measurement
- Completely buried soil temperature sensors to assure the best measurements at selectable, different depths.(programmable: from 1 min to 24 hrs)



► **VISIBILITY AND PRESENT WEATHER**

- Road application sensors having from 2 to 2 Km measurement range
- Possibility to analyses water particles of different forms in the air as fog, rain or snow



► **SNOW LEVEL**

Developped specificatly for snow level measurement in severe environments with low temperatures and where snow's reflection and consistence make difficult measurement to other sensors.



For more technical information and LSI LASTEM products range, read Meteorological Sensors catalogue (MW9001).

Dealer



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