Wet bulb natural ventilated temperature sensor (Pt100 output)



- Wet bulb temperature measurement with natural ventilation as required for the calculation of the WBGT index (ISO 7243) in fixed and/or outdoor installations
- Designed as described in the ISO7726 standard for the "Wet Bulb Temperature"
- 1 liter water tank for more than 30 days water autonomy
- Well protected by the solar radiation
- In-house ISO17025 calibration laboratory
- Accessories for 4...20 mA and RS485 outputs

Thermometric probe with wet bulb and natural ventilation according to ISO7726 standard.
The PT100 element is closed inside a wet cotton sock from a water tank. The water tank has a high reflection factor to avoid water temperature increasing due to radiant sources. This sensor is needed for WBGT (ISO7243) heat stress index assessment.

Technical Specifications

PN	DMA122	DMA122.1
Water tank capacity	1 l	1 l
Water refill	Every 2 months	Every 2 months
Connector	Free wires (4-wires)	Male connector for DWA5nn cables
Cable	L=5 m	L=5 m + connector

Common Technical Specifications

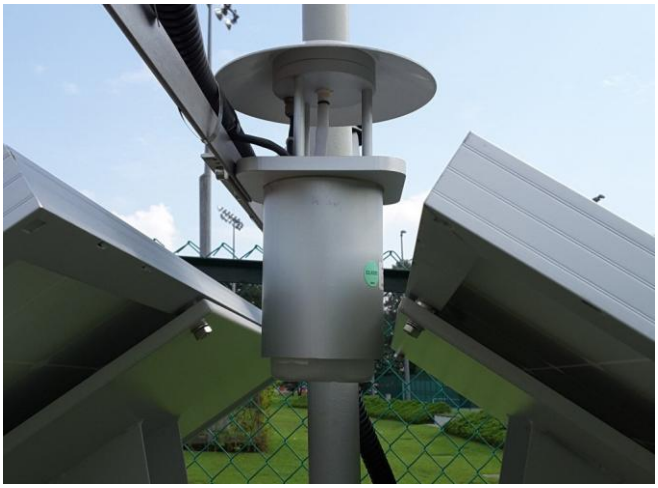
Wet bulb temperature	Principle	Pt100 Class A IEC60751 (DIN Class A)
	Type	RTD 4 wires
	Measuring range	0...80 °C
	Accuracy	±0.15 K @ 0 °C
	Output	Pt100 DIN-IEC 751 table (EN 60751)
	Response time (T90 Air)	10 min (air flow 0,2 m/s)
General Information	Standard	ISO7726
	Protection	IP66
	Power consumption	None
	Operative temperature	0...80 °C
	Mounting	TYA050 + TYA200
	Data logger compatibility	E-Log, Alpha-Log

Accessories

	**TYA050**	Tubular rod Ø22 sp. 15/10 L 500 mm
	**TYA200**	Sliding sensor support
	DYA049	Mast-mounting collar for Ø 45...65 mm pipe
	**DWA505A**	Cable L=5 m for DMA122.1 sensor
	DWA510A	Cable L=10 m for DMA122.1 sensor
	DWA525A	Cable L=25 m for DMA122.1 sensor
	SVICA0103	ISO9001 type calibration certificate
	SVACA0105	ISO17025 type calibration certificate
	**DEA420.1**	Converter: Output: 4...20 mA. Power supply: 10...30 V AC/DC More information on *MW9008-ENG-04-Sensors-conditioning* Catalogue
	MDMMA1010.1	Same feature as DEA420.1: Output: RS485 Modbus-RTU



LSI LASTEM is an ISO17025 accredited laboratory for temperature measurements. All sensors manufactured are tested inside our laboratory. LSI LASTEM provides Test report for any sensor and, under request, ISO17025 or ISO9001 calibration certificates (see Accessories list).



Outdoor measurement of the wet bulb temperature finds its most typical application in the calculation of the WBGT index (ISO 7243) when continuous outdoor monitoring is required. In these cases, small sensors with little water capacity and inadequate solar shields are not suitable. The DMA122 and DMA122.1 sensors are the "meteorological" solution for this kind of measurement.

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