



Portable weather station

GS-PWS

LTE, Wi-Fi Communication



GSoc Portable Weather Station GS-PWS



Communication	RS485 MODBUS RTU
Temperature measurment resolution	0.01°C
Temperature measurement accuracy	compliant with Pt100-1/3B DIN (currently AA), i.e., typ. $\pm 0.1^{\circ}\text{C}$ over the entire measurement range
Long-term temperature drift:	$< 0.03^{\circ}\text{C}/\text{year}$
Humidity measurement resolution	0.1% RH
Humidity measurement accuracy	typical 0.5% RH, max. 1.0% RH
Long-term humidity drift:	$< 0.19\% \text{ RH}/\text{year}$
Atmospheric pressure measurement range	800–1200hPa
Atmospheric pressure resolution	0.01hPa
Atmospheric pressure accuracy	typ. 0.1hPa max. 0.2 hPa
Wind speed measurement range	0–60 m/s
Wind speed resolution	0.01 m/s
Wind speed accuracy	typ. 0.1m/s
Wind direction measurement	in the range of 0–360°
Wind direction measurement resolution	1°
Direction measurement accuracy	5°
Measurement of suspended particulate matter below 1 μm (PM1.0)	in the range of 0–1000 $\mu\text{g}/\text{m}^3$
PM1.0 measurement resolution	0.01 $\mu\text{g}/\text{m}^3$
PM1.0 measurement error	$< 5\%$
Measurement of suspended particulate matter below 2.5 μm (PM2.5)	in the range of 0–1000 $\mu\text{g}/\text{m}^3$
PM2.5 measurement resolution	0.01 $\mu\text{g}/\text{m}^3$
PM2.5 measurement error	$< 5\%$

Measurement of Airborne particulate matter	below 10µm (PM10) in the range of 0–1000 µg/m3
PM10 measurement resolution	0.01 µg/m3
PM10 measurement error	<5%
Radiation housing	ABS
Datalogger housing	Aluminum
Operating temperature	–40°C to +70°C
Battery operation	Continuous (measurement once per minute) up to 10 hours, cyclic mode once per hour up to 10 days
Battery charging time	5V/2A charger with USB–C cable: approximately 8 hours
Dimensions	Diameter: 15 cm, Height: 55 cm
Weight	2kg

COMMUNICATION

Network	Description
LTE	LTE CAT–1, optional LTE CAT–M or NB–IOT, protocols: http(s), MQTT(S), CoAP
Wi–Fi	Wi–Fi 2.4GHz, AP (Access Point) – application from the browser, STA (Station) after connecting to a Wi–Fi router, protocols: http(s), MQTT(S), CoAP