

# Professional Handheld Weather Station

A professional handheld station contains a data logger and a combined multiparameter weather probe. The station is equipped with a bright, readable OLED display. The station is powered from Li-ion batteries charged through the station's USB-C port.



With a professional data logger included, the handheld station is suitable not only for short-period measurement but also for longer campaigns. In addition to SD-card and USB-C, the station also provides a 4G modem and Bluetooth interfaces

for transmitting the data as well as configuring the station. The station has a robust body that can be installed on top of MicroStep-MIS mobile meteorological masts or a standard camera tripod.

## Wind speed

|                    |   |
|--------------------|---|
| Range              | 0.01 m/s to 40 m/s                          |
| Accuracy           | $\pm 3\%$ to 40 m/s,<br>$\pm 5\%$ to 60 m/s |
| Resolution         | 0.01  |
| Starting threshold | 0.01 m/s                                    |
| Sampling Rate      | 1 Hz  |
| Units              | m/s, km/hr, mph, kts, ft/min                |

## Wind direction

|                    |   |
|--------------------|---|
| Range              | 0 - 360°                                    |
| Accuracy           | $\pm 3\%$ to 40 m/s,<br>$\pm 5\%$ to 60 m/s |
| Resolution         | 1°  |
| Starting threshold | 0.05 m/s                                    |
| Sampling Rate      | 1 Hz  |
| Units              | Degrees                                     |

## Temperature

|                      |                  |
|----------------------|------------------|
| <b>Range</b>         | -40 °C to +70 °C |
| <b>Accuracy</b>      | ± 0.3 °C @ 20 °C |
| <b>Resolution</b>    | 0.1              |
| <b>Sampling Rate</b> | 1 Hz             |
| <b>Units</b>         | °C, °F, °K       |

## Humidity

|                      |                               |
|----------------------|-------------------------------|
| <b>Range</b>         | 0 - 100 %                     |
| <b>Accuracy</b>      | ± 2 % @ 20 °C (10 % - 90 %RH) |
| <b>Resolution</b>    | 1 %                           |
| <b>Sampling Rate</b> | 1 Hz                          |
| <b>Units</b>         | % Rh, g/m <sup>3</sup>        |

## Pressure

|                      |                       |
|----------------------|-----------------------|
| <b>Range</b>         | 300 to 1100 hPa       |
| <b>Accuracy</b>      | ± 0.5 hPa @ 25 °C     |
| <b>Resolution</b>    | 0.1 hPa               |
| <b>Sampling Rate</b> | 1 Hz                  |
| <b>Units</b>         | hPa, mbar, mmHg, inHg |

## Interfaces and storage

|                  |   |
|------------------|---|
| <b>USB</b>       | virtual serial port, mass storage           |
| <b>Bluetooth</b> | version 5.2                                 |
| <b>Modem</b>     | built-in 4G module                          |
| <b>Storage</b>   | micro SD card, internal non-volatile memory |

## 4G modem

|                                    |  |
|------------------------------------|--|
| <b>Operating temperature range</b> | -40 °C to +85 °C   |
| <b>Environmental conditions</b>    | Operating temperature range:<br>-40 °C to +70 °C<br>Operating humidity range: 0 to 100 % |

## User interface

- Status LEDs
- Bluetooth
- USB
- Built-in OLED with keypad

## Power options

|   |   |
|---|---|
| <b>Battery</b>                          | Li-ion accumulator with monitoring and USB charging |
| <b>Backup battery for low drift RTC</b> |   |

## Environmental parameters

|                    |                          |
|--------------------|--------------------------|
| <b>Temperature</b> | -40 – 70 °C              |
| <b>Humidity</b>    | 0 – 100 % non-condensing |
| <b>Protection</b>  | IP 67 (except sensors)   |



4:45

Configuration

Measurements

Status

Variables

Maintenance

All

Screens

13 / 19

50

49

48

47

46

Hum. 5

48.88

%

20

40

60

80

100

4:45

Configuration

Measurements

Status

Variables

Maintenance

User

System

Display

APN

"IP","internet"

MDM\_BR

115200

MDM\_TO

300

UDCS\_IP

62.168.101.5

UDCS\_PORT

10825

AWS\_ID

65535

FS

500

DISP\_INTST

100

DISP\_TO

5

CHRG\_MAX\_

2000

RAT I

CHRG\_MAX\_

2000

INP I

Update values

Refresh values

4:47

Configuration

Measurements

Status

Variables

Maintenance

All

Screens

Temp. 5

24.455000

°C

Hum. 5

48.500000

%

VOC Index 5

92

---

NOx Index 5

1

---

Typ. PM 5

0.584000

æm

Temp. 5 2

24.469999

°C

Hum. 5 2

48.500000

%

VOC Index 5 2

93

---

NOx Index 5 2

1

---

Typ. PM 5 2

0.580000

æm

PMS2 SP 1.0

0

æg/mpb

PMS2 NB 1.0

4

#/0.11

SENS 1.0

1.700000

æg/mpb

SENS NB 1.0

13.200000

#/c/mp

SENS 2 1.0

1.600000

æg/mpb

SENS2 NB 1.0

12.600000

#/c/mp

PMS2 SP 2.5

0

æg/mpb

PMS2 NB 2.5

0

#/0.11

SENS 2.5

1.900000

æg/mpb

SENS NB 2.5

13.300000

#/c/mp

SENS 2 2.5

1.800000

æg/mpb

SENS2 NB 2.5

12.800000

#/c/mp

PMS2 SP 10

0

æg/mpb

PMS2 NB 10

0

#/0.11

SENS 10.0

2.100000

æg/mpb

SENS NB 10

13.400000

#/c/mp

SENS 2 10.0

2.000000

æg/mpb

SENS2 NB 10

12.800000

#/c/mp

SENS 4 0

2.000000

æg/mpb

10:32

Configuration

Measurements

Status

Variables

Maintenance

Event list

Terminal

☐ Save to file

Clear window

History

Firmware name: FW1.66

Date and time of firmware: 2025-06-09 11:51:55

Status of the last burning process: 0 \_FW\_OK

Last step of the last burning process: 10 \_FW\_STEP10\_BURN\_SUCCESS OK

FW

DT

GW

SS

PR

M6

M7

M8

Edit Macros

Command:

Menus and submenus of the AMS 111 Compact smartphone application

