

# COMPACT WEATHER STATION WS600-UMB

Item-No.: 423.306



## DESCRIPTION OF FUNCTIONS

The WS600-UMB compact weather station is used to measure air temperature, intensity of precipitation, type of precipitation, quantity of precipitation, air pressure, wind direction and wind speed. Furthermore, it has an RS485 Modbus interface, which guarantees an easy connection to the WEB'log.

## TECHNICAL DATA

Dimensions:	Ø approx. 150 mm, height approx. 343 mm
Weight:	approx. 1.5 kg
Interface:	RS485, 2-wire, semi-duplex
Supply voltage:	24 V DC, ±10%
Operating temperature:	-50 ... 60 °C
Rel. humidity:	0 ... 100 % rel. hum.
Heating:	40 VA at 24 V DC
Cable length:	10 m
Protection class:	IP 65

## TEMPERATURE

Principle:	NTC
Measuring range:	-50 ... 60 °C
Accuracy:	±0.2 °C (-20 ... 50 °C), otherwise ±0.5 °C (> -30 °C)

## REL. HUMIDITY

Principle:	Capacitive
Measuring range:	0 ... 100 % rel. hum.
Accuracy:	±2 % rel. hum.

## AIR PRESSURE

Principle:	MEMS capacitive
Measuring range:	300 ... 1200 hPa
Accuracy:	±1.5 hPa

## WIND DIRECTION

Principle:	Ultrasound
Measuring range:	0 ... 359.9 °
Accuracy:	< 3 ° RMSE > 1.0 m/s

### WIND SPEED

Principle:	Ultrasound
Measuring range:	0 ... 60 m/s
Accuracy:	±0.3 m/s or 3 % (0 ... 35 m/s) RMS (whichever figure is the higher) ±5 % (> 35 m/s) RMS

### QUANTITY OF PRECIPITATION

Resolution:	0.01 mm
Reproducibility:	typically >90 %
Measurement range drop size:	0.3 ... 5 mm
Type of precipitation:	Rain / Snow

### CONFIGURATION

Interface:	RS485
Protocol:	Modbus RTU
Baud rate:	19200
Address range:	71 to 80, see identification label
Data format:	8N1

### MEASUREMENT VALUES RECORDED

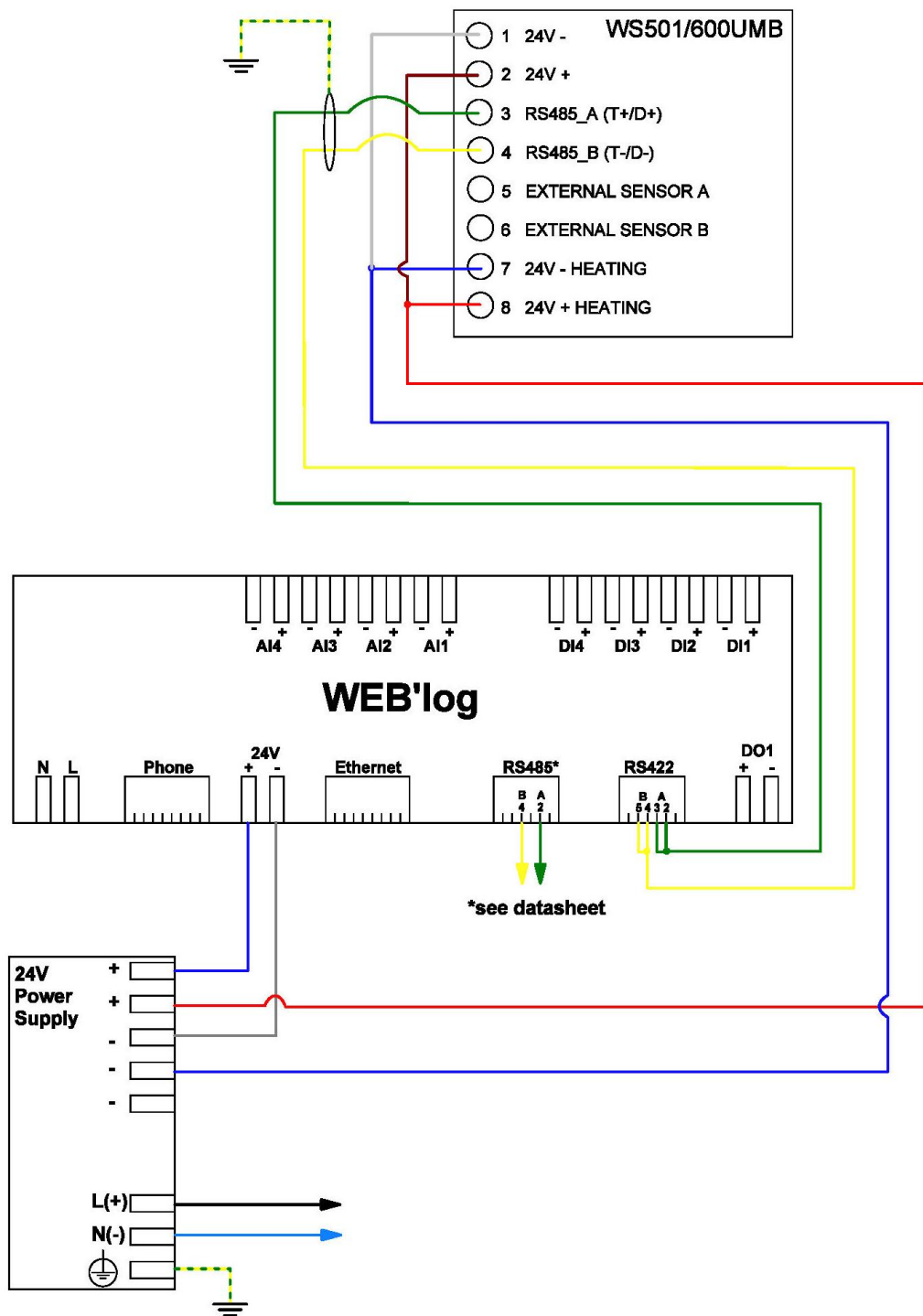
E_AH_REL	Humidity relative
E_AP_REL	Air pressure relative
E_W_D	Wind direction
E_G_U	Irradiance horizontal
E_AT	Air temperature
E_W_S	Wind speed
E_RF_ABS	Precipitation absolute
E_RF_I	Precipitation / hour
E_AH_ABS	Humidity absolute
E_AP_ABS	Air pressure absolute

### WIRING DIAGRAM

1	white	supply voltage mass (-)
2	brown	supply voltage (+24V)
3	green	RS485 (A)
4	yellow	RS485 (B)
5	grey	external sensor (a)
6	pink	external sensor (b)
7	blue	heating voltage mass (-)
8	red	heating voltage (+24V)

**Note:**

Please implement the connection for the heating (terminals 7, 8) via an external mains adapter.



\* The respective connection variant depends on the inverter driver used. Details can be found in the driver data sheet (<http://www.meteocontrol.com/downloads/>).