TECHNICAL SPECIFICATIONS

Power supply	If the rechargeable battery is used: 1830 Vdc If the rechargeable battery is not used: 730 Vdc without ETHERNET module 1230 Vdc with ETHERNET module
Power consumption @ 12 Vdc	< 3 mA without ETHERNET module and with no GSM/3G activity ~ 200 mA with ETHERNET module and with no GSM/3G activity < 1 A peak during GSM/3G activity
Battery	Optional internal lead 12 V / 3.4 Ah. Maximum charge current 1 A. The autonomy depends on the number and type of sensors connected.
Switched power supply output	If the data logger is powered by a solar panel (+Vpanel input), the output is equal to the voltage of the internal lead battery (nominal 12 V). If the data logger is powered by the +Vdc input, the output is equal to the voltage of the +Vdc input. The output is active only when the external sensors have to be powered.
Antenna	External
Measuring interval	1, 2, 5, 10, 15, 30 s / 1, 2, 5, 10, 15, 30, 60 min
Logging interval	1, 2, 5, 10, 15, 30 s / 1, 2, 5, 10, 15, 30, 60 min
Internal memory	Circular management or stop logging if memory is full. Number of samples: from 242,850 to 858,070 depending on the number of detected quantities.
Alarm	Sending of alarm e-mail and SMS. Two voltage-free normally open (NO) contact alarm outputs. Max 300 mA @ 30 Vdc resistive charge.
Display	Optional custom LCD
LED indicator	2-color LED: power on (blinks red), GSM/3G activity (blinks green)
Connection to PC	USB port with mini-USB connector
ETHERNET connection	RJ45 connector (only if the optional ETHERNET module is present)
Internal clock drift	± 2 ppm (0+40 °C) / ± 5 ppm (-40+70 °C)
Operating conditions	-40+70 °C / 0100 %RH for the version without LCD -20+70 °C / 0100 %RH for the version with LCD
Weight	1 kg approx.
Housing	Dimensions: 270 x 170 x 110 mm (excluding external antenna) Material: Polycarbonate (PC) Protection degree: IP 65 (with protective cap on the USB connector)
Installation	Fixing to a 40 mm diameter mast.

Measurement characteristics:

Temperature (instrument in line with the probe HP3517WTC or TP350NTC)		
Sensor	NTC 10 kΩ @ 25 °C	
Measuring range	-40+105 °C	
Resolution (of instrument)	0.1 °C	
Accuracy	\pm 0.3 °C in the range 0+70 °C / \pm 0.4 °C outside	
Stability	0.1 °C / year	
Relative Humidity (instrument in line with the probe HP3517WTC)		
Sensor	Capacitive	
Measuring range	0100 %RH	
Resolution (of instrument)	0.1 %	
Accuracy	\pm 1.8 %RH (085 %RH) / \pm 2.5 %RH (85100 %RH) @ T=1535 °C \pm (2 + 1.5% measure)% @ T=remaining range	
Sensor operating temperature	-40+80 °C	
Response time	T_{90} < 20 s (air speed = 2 m/s, without filter)	
Temperature drift	±2% over the whole operation temperature range	
Stability	1% / year	

Calculated quantities	Dew Point	
Atmospheric pressure		
Sensor	Piezoresistive	
Measuring range	3001100 hPa	
Resolution (of instrument)	0.1 hPa	
Accuracy	± 0.5 hPa (8001100 hPa) @ T=25°C ± 1 hPa (3001100 hPa) @ T=050°C	
Stability	1 hPa / year	
Temperature drift	±3 hPa tra -20+60 °C	
Pt100/Pt1000		
Measuring range	-200+650 °C	
Resolution	0.1 °C	
Accuracy	± 0.1 °C (excluding probe error)	
Sensor coefficient	α=0.00385 °C ⁻¹	
Connection	2, 3 or 4 wires	
Thermocouple		
Thermocouple type	K, J, T, N, E. The inputs are not isolated, use thermocouples with isolated hot junction .	
Measuring range	type K : -200+1370 °C type J : -100+750 °C type E : -200+750 °C type T : -200+400 °C type N : -200+1300 °C	
Resolution	0.1 °C	
Accuracy (excluding probe error)	type $K: \pm 0.1 ^{\circ}C$ (< 600 $^{\circ}C$) type $E: \pm 0.1 ^{\circ}C$ (< 300 $^{\circ}C$) $\pm 0.2 ^{\circ}C$ (> 600 $^{\circ}C$) $\pm 0.2 ^{\circ}C$ (> 300 $^{\circ}C$) type $N: \pm 0.1 ^{\circ}C$ (< 600 $^{\circ}C$) type $J: \pm 0.1 ^{\circ}C$ $\pm 0.2 ^{\circ}C$ (> 600 $^{\circ}C$) type $T: \pm 0.1 ^{\circ}C$	
0/420 mA input		
Shunt resistance	Internal (50 Ω)	
Resolution	16 bit	
Accuracy	± 2 µA	
Inputs 050 mV / -5050 mV / 01 V / 010 V		
Input Resistance	100 ΜΩ	
Resolution	16 bit	
Accuracy	± 0.01% f.s.	
Inputs for counting the switchings of a voltage-free contact		
Switching frequency	50 Hz max.	
Hold Time	10 ms min.	
Potentiometer input		
Potentiometer	Typically 10 kΩ	
Resolution	16 bit	
Accuracy	± 0.01% f.s.	
Rainfall measurement		

The data logger can record:

- Maximum rainfall rate

- Daily rainfall
 Total rainfall
 Amount of rainfall which has fallen in the logging interval