

## Digital handheld service meter



### Probe communicator S-535

- Reading analog probe outputs in V or %RH / °C
- Reading digital data from RS-232 / RS-485 probe with ASCII output
- Changing settings Input and output range
- Two point calibration of Relative Humidity input
- One point calibration of Temperature input
- Auto-detection of probe type
- Auto-detection of range settings
- Reading the serial number and software version from probe
- Auto power-off



The S-535 is a versatile digital handheld meter which is designed for the new  $\mu$ Controller based humidity and temperature sensors from Rense Instruments. It is capable of displaying the data of humidity probes as well as programming and calibrating them. This gives the user the possibility to change the probes parameters and settings especially when in the field.

The new line of sensors consist basically of two designs:

The first series work just like normal analog transmitters however with the difference that instead of adjustment potentiometers they can be digitally calibrated and programmed by the S-535.

The second series have a digital output (RS-232 / RS-485). The same S-535 handles these sensors as well.

Although every probe with analog outputs can be read, the full potential of the S-535 can only be experienced when a digital probe is connected. The LCD displays the information on two lines with 16 characters each. Access to the probe's parameters is given via a menu which is clear and intuitive.

When a digitally controlled probe is connected to the S-535, it adapts immediately to the probes settings, adjusting the readout always to the right scale, regardless of the input/output range of the probe. When a probe with digital output ( RS232 ) is connected, the temperature and all RH-related data can be read at a glance, while it is shown on the two lines in one readout cycle.



## Specifications S-535

### Menu choices:

- Menu 1 **Probe information:**  
probe type and serial no
- Menu 2 **Readout :**  
%RH + Temperature in Volts or %RH/°C
- Menu 3 **Power off**
- Menu 4 **Range settings** (depends on probe type)  
Input ranges -40..+60 / -20..+80 / 0..+50 / 0..+100 °C.  
Output ranges 0..1 / 0..2 / 0..5 / 0..10 Volt.  
Choice of RH derived : Abs Hum [gr/ m<sup>3</sup>] , Dewpoint [°C], RH[%].  
Choice of Sensor type.
- Menu 5 **Calibration**  
2 point calibration of RH, 1point calibration of Temperature

### Input :

A/D conversion	24 bits
Digital probe	HT-737 (Ø 19mm) (auto detect)
Analog probe µC based	HT-761 (Ø12mm), HT-773 (Ø19mm) ,,
Analog probe	Only readout
Ranges:	%RH = 0..100%
	Temperature = -40 .. + 60°C
	= -20 .. + 80°C
	= 0 .. + 50°C
	= 0 .. +100°C
	Dewpoint = -40 .. + 80°C (calculated)
	Absolute Humidity 0.1 .. 262 g/m <sup>3</sup>
Readout resolution Volt scale	1mV
Readout resolution RH-scale	0.01%RH
Readout resolution Temp-scale	0.01 °C
Operating Temperature range	0..50°C
Display	16 characters x 2 lines Character height 4.4mm
Dimensions W x H x D	80 x 150 x 28 mm
Weight	180 g
Supply	Battery 9V (low bat indication @ 6.3V)

### Warranty

All products manufactured by RENSE Instruments are warranted to be defect free in material and workmanship for a period of one year after delivery.



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