

Eltek TU1022 - Using the Vaisala WXT520 and WMT52 sensors with Eltek 451WXT, 451WMT, 851WXT and 841WMT data loggers

The configuration of the WXT520 or WMT52 should be checked using the Vaisala Configuration Software. In particular only the following parameters should be selected:

WXT520	WMT52
Average Wind speed	Average Wind speed
Average wind direction	Average wind direction
Temperature	
Humidity	
Pressure	
Rain fall	

(See screen shots, (WXT520 only) overleaf)

- The Logger communicates at 19200 baud, 8 data bits, 1 stop bit, no parity
- 6 channels in the logger are allocated to the 6 measured sensor parameters
- The WXT520 (or WMT52) is set to sample every 5 seconds and average over 1 minute
- The logger records the following:
 - The spot temperature, humidity and pressure readings
 - The average wind speed and direction taken over the previous minute
 - The total rainfall since the last recording

Note: If the Vaisala device is to be supplied directly by Vaisala or by a 3rd party (not Eltek), the order code must commence

WXT520AAB.. (or AAF, etc)

WMT52AAB.. (or AAF, etc)

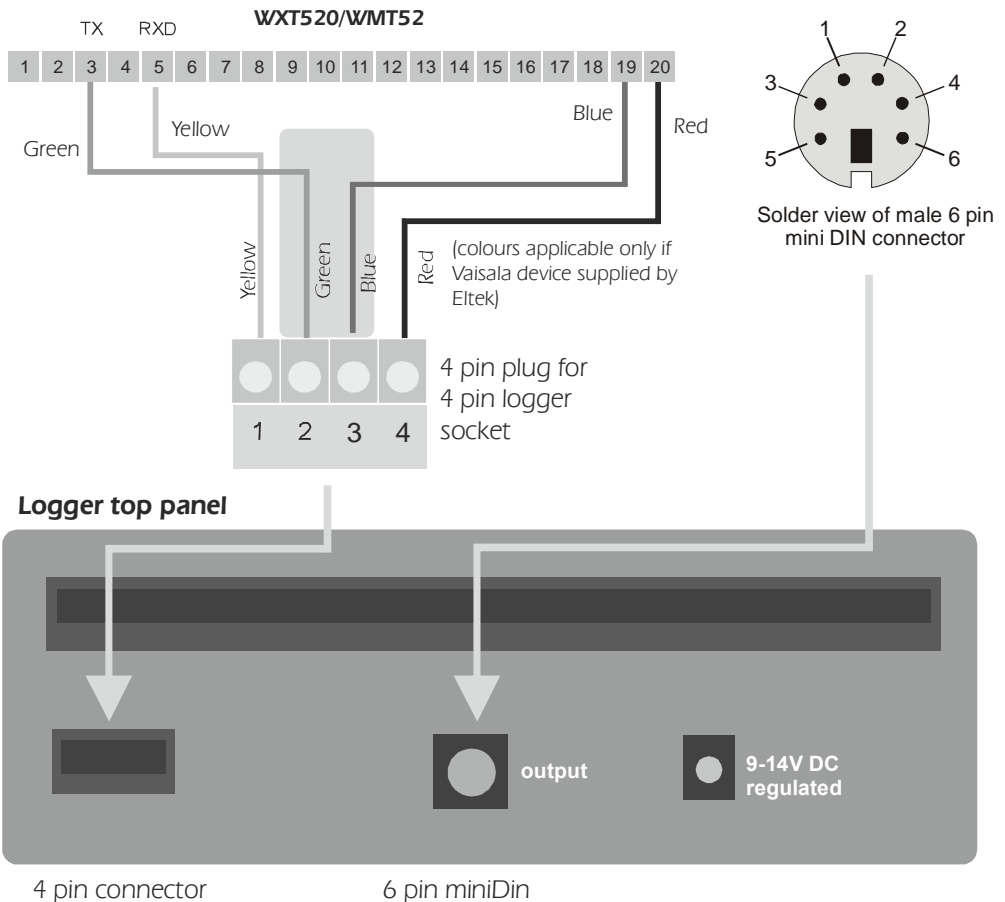
Cable connections for RS232 communications

(Refer to Squirrel 1000 series manual for the diagram of the connector.)

The Vaisala sensor can be connected to the logger either through the 4 pin connector (if available) or through the standard 6 pin miniDin serial output connector.

4 pin connector	6 pin miniDin	Vaisala Sensor	4 core colours (ONLY if supplied by Eltek)
Pin	Pin	Pin	
2	1 (serial in)	3 (TXD)	Green
3	3 (ground)	19 (Vin -)	Blue
4	4 (+ supply out)	20 (Vin +)	Red
1	5 (serial out)	5 (RXD)	yellow

The Vaisala sensor is powered by the logger external power, not by the internal battery.



Connect the sensor to either the 4 pin connector (where available) or the 6 pin miniDin connector.

Message Settings [?] [X]

Wind message

Direction minimum Speed minimum
 Direction average Speed average
 Direction maximum Speed maximum

PTU message

Barometric pressure Pressure ref. temp
 Air temperature Relative humidity

Precipitation message

Rain accumulation Hail accumulation
 Rain duration Hail duration
 Rain intensity Hail intensity
 Rain peak Hail peak

Self diagnostic

Heating temp. Supply voltage
 Heating voltage 3.5 V reference

Composite message

Direction minimum Speed minimum
 Direction average Speed average
 Direction maximum Speed maximum

Barometric pressure Pressure ref. temp
 Air temperature Relative humidity

Rain accumulation Hail accumulation
 Rain duration Hail duration
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OK Cancel Defaults

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