EOL Monitor – Reading the displayed value using Modbus RTU over RS232

It is possible to communicate with the Easidew monitor using Modbus RTU over RS232. The monitor has a three pin serial port connection on the back – the required cable can be supplied by Michell.

To read the value displayed on the monitor you will need to create a byte array containing the following bytes:

Instrument Address	Command	Reg Address High	Reg Address Low	Number of Reg High	Number of Reg Low	LRC	CRC
0x01	0x04	0x00	0x00	0x00	0x01	0x31	0xCA

Send this to the instrument with the correct delays between characters:

Baud Rate (bps)	Min Delay (ms)	Max Delay (ms)
1200	9.17	13.76
2400	4.59	6.88
4800	2.30	3.44
9600	1.15	1.72
19200	0.57	0.86

After a few seconds the instrument will send back the following response:

Instrument Address	Command	Number of bytes	Display High	Display Low	LRC	CRC
0x01	0x08	0x02	0x00	0x67	(Varies)	(Varies)

Data MSB * 256 + Data LSB = 0 *256 + 103 = **103**

This code written in c, can be used to convert the 103 into a real dew point value or 10.3:

```c
float ConvertToReal(int Value) //convert dew point Value to real dew point result
{
    float result;      //declaration

    if (Value > 32767) Value=(Value-65536);   //convert to negative number

    result = (float)(Value/10.0);   //divide number by 10 to convert to float

    return result;     //return real value

}
```