

## MainProbe-V RS485 - Cheat sheet

Version 2 – 07/09/2021

### Physical Setup

Insulation colour	Purpose	Mainstream RS485 cable colour
Yellow	RS485 Half Duplex B-	Yellow
Brown	RS485 Half Duplex A+	Orange
Red	Power (+ve)	
Black	Power (-ve)	
Blue	Reserved	
White	Reserved	
Clear	Screen	

**Input voltage (1 device on bus): 6V – 28V     Input voltage (>1 device on bus): 7-28V**

### Default MainProbe Settings

**Baud rate: 19200, Parity: Even, Stop bits: 1, Data bits: 8, Modbus Address: 1, Measurement Interval: 30s, Read-Only Access Code: 0000, Basic Access Code: 1234, Advanced Access Code: 5678**

**Start-up time: ~60ms** (The MainProbe will automatically take a measurement upon start-up.)

**Measurement processing time: ~400ms** (per 1 of measurement time.)

### Supported Modbus function codes

**3 – Read holding register(s), 6 – Write holding register.**

All data in the MainProbe is stored in **16-bit holding registers**.

### MainProbe floating-point

Byte arrangement is fixed to a **low word first, high byte first** configuration.

**Example:**                      The floating-point number:                      “212.549530”                      **(ABCD)**  
                                         These will be received from the MainProbe as:                      “8C AE 43 54”                      **(CDAB)**

### Supported Modbus holding registers

Parameter Name	Register Address / Reg. Count	Behavior / Type / Default Type	Access Mode		
			Adv.	Basic	Read Only
Measurements Complete	41374 / 2	Reset to 0 to trigger a measurement. / Int32 / 1	Rd. Wr.	Rd. Wr.	Rd. Wr.
Velocity (mm/s)	41376 / 2	Returns Velocity in milli-meters per second. / float / 0.0	Rd. Only	Rd. Only	Rd. Only
Velocity (cm/s)	41378 / 2	Returns Velocity in centi-meters per second. / float / 0.0	Rd. Only	Rd. Only	Rd. Only
Velocity (M/s)	41380 / 2	Returns Velocity in meters per second. / float / 0.0	Rd. Only	Rd. Only	Rd. Only
Velocity (in/s)	41382 / 2	Returns Velocity in inches per second. / float / 0.0	Rd. Only	Rd. Only	Rd. Only
Velocity (ft/s)	41384 / 2	Returns Velocity in feet per second. / float / 0.0	Rd. Only	Rd. Only	Rd. Only
Velocity (ft/min)	41386 / 2	Returns Velocity in feet per minute. / float / 0.0	Rd. Only	Rd. Only	Rd. Only
Signal quality (%)	41388 / 2	Returns signal quality in percent. / float / 0.0	Rd. Only	Rd. Only	Rd. Only
Temperature (°C)	41390 / 2	Returns temperature in Celsius. / float / 0.0	Rd. Only	Rd. Only	Rd. Only
Temperature (°F)	41392 / 2	Returns temperature in Fahrenheit. / float / 0.0	Rd. Only	Rd. Only	Rd. Only
Supply Voltage (V)	41394 / 2	Returns supply voltage in volts. / float / 0.0	Rd. Only	Rd. Only	Rd. Only