

MainProbe/MainProbeX - RS485 - Cheat sheet

Version 1.1 – 17/09/2025

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)	
Clear	Screen	

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

Default MainProbe/MainProbeX 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:** Measurement available within 1.5 sec of power up (The MainProbe/MainProbeX will automatically take a measurement upon start-up.)

Supported Modbus function codes

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

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

MainProbe/MainProbeX 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/MainProbeX 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