Metron MODBUS TCP/IP REGISTER TABLE

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Applicable for all Metron smart charging stations and smart portable chargers with Modbus TCP/IP support

METRON
EV CHARGING SOLUTIONS

Modbus address	R/W	Modbus function	Type	Description	Range	Values/comments
1	R	0x04 - Read Input Register	uint16	Charging state Value **1** = A1 = EV not connected, station doesn't allow charging Value **2** = A2 = EV not connected, station allows charging start Value **3** = B1 = EV connected without charging request, station doesn't allow charging start Value **4** = B2 = EV connected without charging request, station allows charging start Value **5** = C1 = EV connected with charging request, station doesn't allow charging Value **6** = C2 = EV connected with charging request, station allows charging Value **7** = D1 = EV connected with room ventilation request, station doesn't allow charging Value **8** = D2 = EV connected with room ventilation request, station allows charging Value **9** = E = station or vehicle error	0...65536	Station provides only numbers 1,2,3,4,5,6,7,8,9
10	R	0x04 - Read Input Register	uint16	Charging current L1	0...65536	1 = 0.1A (e.g. 160 = 16.0 A)
11	R	0x04 - Read Input Register	uint16	Charging current L2	0...65536	1 = 0.1A (e.g. 160 = 16.0 A)
12	R	0x04 - Read Input Register	uint16	Charging current L3	0...65536	1 = 0.1A (e.g. 160 = 16.0 A)
20	R	0x04 - Read Input Register	uint16	Phase voltage L1	0...65536	1 = 1 V (e.g. 230 = 230 V)
21	R	0x04 - Read Input Register	uint16	Phase voltage L2	0...65536	1 = 1 V (e.g. 230 = 230 V)
22	R	0x04 - Read Input Register	uint16	Phase voltage L3	0...65536	1 = 1 V (e.g. 230 = 230 V)
30	R	0x04 - Read Input Register	uint16	Total charging power (L1+L2+L3)	0...65536	1 = 1 W (e.g. 11000 = 11 kW)
31	R	0x04 - Read Input Register	uint16	Charging power L1	0...65536	1 = 1 W (e.g. 2300 = 2300 W)
32	R	0x04 - Read Input Register	uint16	Charging power L2	0...65536	1 = 1 W (e.g. 2300 = 2300 W)
33	R	0x04 - Read Input Register	uint16	Charging power L3	0...65536	1 = 1 W (e.g. 2300 = 2300 W)
40	R	0x04 - Read Input Register	uint16	This charge energy MSB	0...65536	1 = 1 Wh (e.g. 38456 = 38456 Wh)
41	R	0x04 - Read Input Register	uint16	This charge energy LSB	0...65536	
42	R	0x04 - Read Input Register	uint16	Lifetime charging energy MSB	0...65536	1 = 1 Wh (e.g. 20344562 = 20344562 Wh)
43	R	0x04 - Read Input Register	uint16	Lifetime charging energy LSB	0...65536	
50	R	0x04 - Read Input Register	uint16	Station max. charging current	0...65536	1 = 1A (e.g. 16 = 16 A)
51	R	0x04 - Read Input Register	uint16	Station min. charging current	0...65536	6 = 6A (fixed number)
100	R/W	0x03 - Read Holding Register 0x06 - Write Holding Register	uint16	Max. allowed charging current command Requested charging current values below 6 A (values below 60) stop charging the EV.	0...65536	1 = 0.1A (e.g. 160 = 16.0 A)
101	R/W	0x03 - Read Holding Register 0x06 - Write Holding Register	uint16	Activate charging command If charging station is locked and requires activation to start charging, Master needs to send value 1 only once after the vehicle has been plugged-in and charging will start.	0...65536	1 = activate charging
200	R/W	0x03 - Read Holding Register 0x06 - Write Holding Register	uint16	Modbus TCP/IP HeartBeat Master shall send by 1 increased number or always the same number (any number excluding 50000) once per certain amount of time (e.g. once per 1 or 2 seconds) to keep Modbus connection "alive".	0...65536	In case of no Master activity (e.g. WiFi network failure) for the set WatchDog timeout period (see register 201 description) the station will ignore last Modbus commands and continue charging with user manually set charging current or Metron Dynamic Power Control system limited charging current.
201	R/W	0x03 - Read Holding Register 0x06 - Write Holding Register	uint16	Modbus TCP/IP WatchDog timeout	0...65536	1 = 1 ms (default = 10000 = 10s)

Note 1: Values for voltage, current, power and energy are not measured by MID-certified meter and shall not be used for billing purposes. Accuracy of measured values is within +/- 5%.