

TPLC MODBUS over TCP communications manual

TPLC server has an optional MODBUS TCP server. If enabled, it runs on port 502 and gives access to real-time temperature control information.

For additional security, the server must be provided with a list of IP addresses to allow connections from.

The server complies to the MODBUS standard and can be queried using the standard “Read Input Registers” command. The valid addresses using the command are in the range (0 - 0x6000). Here is the mapping. Addresses are 0-based, meaning address 0 translates to MODBUS logical register 1:

Address (hex)	Value
0x0000	Silo count
0x0002	Aux temperature
0x0004	Aux pressure
0x0006	Aux humidity
...	
0x1000	Silo 0 probe count
0x1002	Silo 0 gas probe count
...	
0x1020	Silo 0 probe 0 length
0x1022	Silo 0 probe 1 length
0x103F	Silo 0 probe 15 length
0x1040	Silo 0 probe 0 value 0
0x1042	Silo 0 probe 0 value 1
0x1060	Silo 0 probe 1 value 0
...	
0x1240	Silo 0 co2 0
0x1242	Silo 0 voc 0

0x1244	Silo 0 humidity 0
0x1246	Silo 0 measure vacuum 0
0x1248	Silo 0 chamber temperature 0
0x1250	Silo 0 co2 1
...	
0x1300	Silo 1 probe count
...	

All values are 16-bit integers. All temperatures are stored in 1/10 degree, so a value of 100 means 10 degree celsius.