

SCADA INTERFACE

BLUE'LOG XM / XC

Item no.: 557.009



Access to live values via Modbus TCP

LICENSE DESCRIPTION

The SCADA interface is an open Modbus TCP interface. It provides external systems like SCADA or building management with simple and standardized access to all live measurement data of devices connected to the blue'Log.

No matter which communication protocol the connected device uses to communicate with blue'Log, the data can always be requested from the data logger by using the same Modbus protocol and register structure.

The SCADA Interface license activates this function on the data logger.

FEATURES

- + Modbus TCP interface
- + Standardized access to live measurement data
- + The respective Modbus SCADA address (Slave ID) for the connected devices can be freely configured if required
- + Access to all measurement data which the data logger records from the connected devices
(Available device types: Inverter, Sensors, Meter, String monitoring, Status DI internal/external, Tracker, Genset)

REQUIREMENTS

- + blue'Log XM / XC
- + License SCADA Interface*
- + Configuration via the menu **PV plant > SCADA Interface**
 - Activate SCADA Interface
 - If desired, change the preassigned SCADA Address (Slave ID)

*The license is linked to a specific device. When ordering, please provide the 14-digit hardware serial number of the data logger.

AVAILABLE MEASUREMENT DATA

- + Depends on the connected device
- + Available measurement data are described in the [Compatibility list](#)*
- + Not available measurement data will be transmitted as „missing value“. (see table „Missing values“ in section „Modbus specification“)

*A list of measured values is not available for every device. This depends on whether the available measured values are transmitted dynamically by the device, e.g. SunSpec devices.

FUNCTION ASSIGNMENT SCADA ADDRESSES (SLAVE ID)

- + The SCADA addresses (Slave ID) will be automatically assigned the first time the SCADA interface is activated
- + The SCADA addresses are not reassigned if the SCADA interface is deactivated and then reactivated
- + If the SCADA interface is activated, new added devices are not automatically assigned to a SCADA address.
- + The function **Reset SCADA address** reassigns the SCADA addresses for the existing devices
- + The SCADA addresses of a device can be changed manually at any time

MODBUS SPECIFICATION

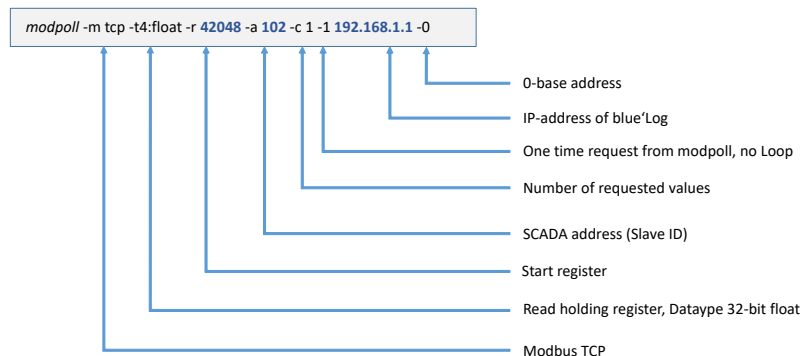
Modbus Register

You can download the Modbus register definition under „blue'Log XM / XC“ on the meteocontrol website: <https://www.meteocontrol.com/service/downloads/>

General register definition

- + Every device has a type-dependent value set
- + If a device does not deliver a measurement value, a missing value will be sent instead. (see table „Missing values“)
- + Regardless of the device type, the section “General values” contains basic values such as device type, manufacturer, and device name.
- + "Function Code 03 - Read Holding Registers" must be used to read values. „Function Code 16 – Write Multiple Holding Registers“ must be used to write values.
- + The word order is LOW, byte order is HIGH → 0xCCDDAABB
- + Factor and offset: First the factor and then the offset must be calculated with the value.

Example request for a temperature value (Register 42048) of a sensor (Slave ID 102) at a blue'Log with Ip 192.168.1.1
Following request is built with the open source tool modpoll



Missing values

Data type		Value
U16	16Bit Unsigned Integer	0xFFFF
U32	32Bit Unsigned Integer	0xFFFFFFFF
I16	16Bit Signed Integer	0x8000
I32	32Bit Signed Integer	0x80000000
F32	32Bit Float	0x7FC00000
String	String, ASCII Encoding. If the whole length of the field is used, then the end of the string will be filled with 0x00 If a value (e.g. model name) does not fit in the register, then it will be cut off	0x00

Further information: www.meteocontrol.com