

## Modbus/TCP Connection and Setup Guide

### Cable and connection: (Manual Appendix 6)

A patch/crossover cable with an RJ45 connector is required to use the Ethernet interface.

- The Ethernet interface can be configured directly on the device.
- DHCP and DNS are also supported. It is possible to obtain the IP configuration automatically via DHCP. If necessary, the IP configuration can also be set up manually.
- In the N2o Wastewater System, the **TCP port 502** is set permanently to Modbus/TCP and cannot be changed.
- The configuration of the Modbus device address is not required for Modbus/TCP.
- Bus users are identified by their IP address. The **Unit ID** (Modbus device address in the Modbus/TCP telegram) is set permanently to **255**

### Address table:

N<sub>2</sub>O concentration and emission

| Hex  | Dec  | Data type | Access | Data                        | Value Note  |
|------|------|-----------|--------|-----------------------------|---|
| 15C5 | 5573 | float     | r/o    | Calculated result formula 1 | N <sub>2</sub> O Concentration value Sensor 1 (g/m <sup>3</sup> N-N <sub>2</sub> O) |
| 15C7 | 5575 | float     | r/o    | Calculated result formula 2 | N <sub>2</sub> O Concentration value Sensor 2 (g/m <sup>3</sup> N-N <sub>2</sub> O) |
| 15C9 | 5577 | float     | r/o    | Calculated result formula 3 | N <sub>2</sub> O Emission value Sensor 1 (g/m <sup>3</sup> /day N-N <sub>2</sub> O) |
| 15CB | 5579 | float     | r/o    | Calculated result formula 4 | N <sub>2</sub> O Emission value Sensor 2 (g/m <sup>3</sup> /day N-N <sub>2</sub> O) |

### Raw values (optional)

| Hex  | Dec  | Data type | Access | Data                             | Value Note                          |
|------|------|-----------|--------|----------------------------------|-------------------------------------|
| 16A0 | 5792 | float     | r/o    | Measured value IN 6 compensated2 | Airflow input (m3/h)                |
| 16A2 | 5794 | float     | r/o    | Measured value IN 11 compensated | N <sub>2</sub> O raw value Sensor 1 |
| 16A4 | 5796 | float     | r/o    | Measured value IN 12 compensated | N <sub>2</sub> O raw value Sensor 2 |
| 16BB | 5819 | float     | r/o    | Measured temperature value IN 4  | Temperature value Sensor 1          |
| 16BD | 5821 | float     | r/o    | Measured temperature value IN 5  | Temperature value Sensor 2          |
| 16DA | 5850 | bool      | r/o    | Binary value IN 1                | Air ON tank 1                       |
| 16DB | 5851 | bool      | r/o    | Binary value IN 2                | Air ON tank 2                       |

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