

# MUH04-LF

conductivity transmitter for computer systems/PLC



The MUH04-LF is a conductivity transmitter designed with an AC input amplifier and a galvanically isolated signal generator. The alignment of the conductivity electrode can be precisely adjusted by a potentiometer on the front. Temperature compensation of the measured value is available by a NTC-resistor within the measuring cell. The housing is suitable for rail mounting. The connection of the measuring cell as well as the power supply and the signal output are established by screw terminals.

#### **Features**

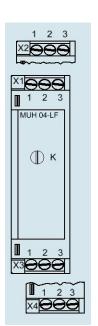
- galvanically isolated generator and transducer input for direct connection of the conductivity cell
- precise alignment of the conductivity electrode
- selectable measuring range
- selectable output signal
- selectable temperature compensation
- compact polyamide housing for rail mounting (according to DIN EN 60715)

### **Application fields**

- conductivity measurement of PLC and computer systems
- continuous and batch waste water treatment plants
- pure water and ultra-pure water plants, desalination and recirculation systems
- exhaust systems
- final inspection and monitoring

## **Connections**

| No.  | Description                  |
|------|------------------------------|
| X1-1 | voltage output signal        |
| X1-2 | voltage output ground        |
| X1-3 | mass flow output             |
| X2-1 | voltage supply               |
| X2-2 | voltage supply               |
| X2-3 | current output signal        |
| X3-1 | not assigned                 |
| X3-2 | not assigned                 |
| X3-3 | not assigned                 |
| X4-1 | conductivity generator / NTC |
| X4-2 | conductivity receiver        |
| X4-3 | NTC                          |





### **Technical data**

| Parameter                                 | Description   | Order code:<br>MUH04-LF- |  |
|---|---|--------------------------|--|
| generator and amplifier                   | high-impedance AC measurement, galvanically isolated output |                          |  |
|   | 0 to 200 $\mu$ S/cm, K = 0.1 cm <sup>-1</sup>               | M020/0.1                 |  |
|   | 0 to 2000 $\mu$ S/cm, K = 0.1 cm <sup>-1</sup>              | M2/0.1                   |  |
| measuring range (other ranges on request) | 0 to 2000 $\mu$ S/cm, K = 1.0 cm <sup>-1</sup>              | M2/1.0                   |  |
| on request/                               | 0 to 20 mS/cm, $K = 1.0 \text{ cm}^{-1}$                    | M20/1,0                  |  |
|   | 0 to 200 mS/cm, $K = 10.0 \text{ cm}^{-1}$                  | M200/100                 |  |
| correction range                          | ±10 %   |                          |  |
| voltage supply                            | 24 V DC nominal, ±10 %                                      |                          |  |
| power consumption                         | < 1 VA  |                          |  |
|   | 0 to 10 V (short circuit proof)                             | V0                       |  |
| voltage or current output                 | 0 to 20 mA  | S0                       |  |
|   | 4 to 20 mA  | S4                       |  |
| max. load                                 | 600 Ω   |                          |  |
| min. load resistance                      | 10 kΩ   |                          |  |
|   | none  | -                        |  |
| temperature compensation                  | NTC   | AT                       |  |
| connection                                | 12-pin screw terminal connection                            |                          |  |
| dimension                                 | 23 mm x 75 mm x 101 mm (W x H x D)                          |                          |  |
| permitted operating conditions            | 0 to +60 °C, < 80 % RH                                      |                          |  |
| permitted storage conditions              | −40 to +70 °C, < 80 % RH                                    |                          |  |
| permitted degree of pollution             | 2 (according to DIN EN 60664-1)                             |                          |  |
| protection                                | IP30  |                          |  |
| weight                                    | 90 g  |                          |  |

Please specify measuring range, voltage or current output and whether a temperature compensation is desired when ordering. Specifications are subject to modifications.

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