

MR48pHD

pH measurement and control device with limit switch



The MR48pHD is a high-resolution conductivity measurement, display and control device. It is equipped with a digital display as well as an asymmetry and slope potentiometer for each limit. The desired value can be adjusted with a third potentiometer. An LED indicates the limit switch condition. The limit can be displayed by using an additional button. The compact design according to DIN IEC 61554 is made of flame-retardant noryl and designed for panel mounting. The device is connected via screw-type connectors on the back side.

Features

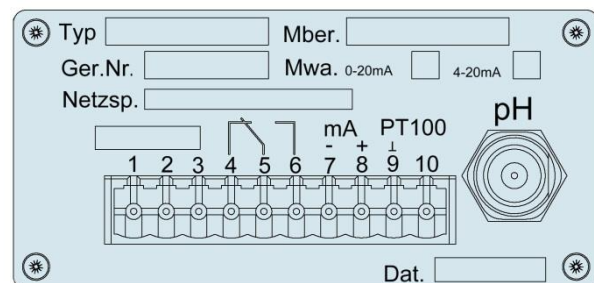
- high-impedance converter for direct connection of a pH electrode
- 3 ½-digit LCD display, digit height 12.7 mm
- limit value (changeover contact) programmable and displayable
- limit switch contact selectable as exceeding or undercut switch
- switching status indicated by LED
- precise adjustment of zero point and slope of the amplifier to the electrode
- selectable measuring range
- selectable current output
- selectable power supply
- selectable temperature compensation
- quick and easy installation in the panel outbreak via spring clips that can be attached to the housing wall

Application fields

- swimming pools, fish farming, breweries
- sewage treatment plants, landfills and power plants
- continuous and batch waste water treatment plants
- pure and ultra-pure water plants
- exhaust systems and desalination
- recirculation systems
- final inspection and monitoring

Connections

| No. | Description |
|-----|-----------------------------|
| 1 | power supply |
| 2 | power supply |
| 3 | power supply |
| 4 | relay, break contact (RK) |
| 5 | relay, middle contact (MK) |
| 6 | relay, normal open (AK) |
| 7 | 0 to 20 mA / 4 to 20 mA (-) |
| 8 | 0 to 20 mA / 4 to 20 mA (+) |
| 9 | ground PT100 (PT ⊥) |
| 10 | PT100 (PT) |



Technical data

| Parameter | Description | Order code: MR48pHD- |
|--------------------------------------------------|---------------------------------------------------------|-------------------------|
| measuring range (factory set) | pH 0 to pH 14 | 014 |
| | pH 0 to pH 10 | 010 |
| | pH 2 to pH 12 | 212 |
| resolution | 0.01 pH | |
| power supply (factory set) | 230 V AC, 50–60 Hz / 6 VA, -15 % to +10 % | 230AC |
| | 120 V AC, 50–60 Hz / 6 VA, -15 % to +10 % | 120AC |
| | 24 V AC | 24AC |
| | 24 V DC | 24DC |
| current output (factory set, non-isolated) | 0 to 20 mA | S0 |
| | 4 to 20 mA | S4 |
| limit control output contact (potential free) | 250 V AC / 2 A or 250 V DC / 2 A | |
| switching point | undercut | SN |
| | exceeding | SH |
| limit adjustment range | according to measuring range | |
| Max. load | 600 Ω | |
| temperature compensation | none | - |
| | automatic, with PT100 (2-wire connection) | AT |
| front | 3 ½-digit LCD display, digit height 12.7 mm | |
| | limit-state indication by yellow LED | |
| | button to display the limits | |
| | potentiometer for setting limits | |
| | potentiometer for slope adjustment | |
| | potentiometer for balancing asymmetry potential | |
| connection | 10-pin screw terminal | |
| | BNC-connector (pH electrode connection) | |
| dimension | 96 mm x 48 mm x 150 mm (W x H x D including connectors) | |
| panel cut out | 91.3 mm x 45.2 mm, ±0.2 mm | |
| permitted storage and operating conditions | 0 to +40° C, < 80 % RH | |
| permitted degree of pollution | 2 (according to DIN EN 60664-1) | |
| protection | front: IP40 | |
| | rear: IP20 | |

Please specify measuring range, signal output, power supply, switch and whether a temperature compensation is desired when ordering.

Specifications are subject to modifications.