

Residual chlorine meter TRC/ERC400 Datasheet



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Datasheet

Residual chlorine meter TRC/ERC400

The residual chlorine meter has a built-in sensor, which has the characteristics of high measurement accuracy, fast response time and low maintenance cost. The residual chlorine meter outputs 4~20mA standard signal and RS485 signal, which can be connected to various regulators, and can be connected to two-position regulators, time proportional regulators, non-linear regulators and classic PID regulators according to requirements, which can be combined into various types. Residual chlorine control system.

Applications

- Secondary water supply
- Tap water
- Pool water
- Water works
- Agricultural drinking water

Features

- The electrode measurement is accurate and the response speed is fast
- LCD with backlight, easy and intuitive operation
- With automatic temperature compensation, pH manual compensation function
- Restore factory function to avoid data loss by misoperation
- Isolated 4-20mA standard signal can realize signal remote transmission
- Range can be switched manually
- A variety of calibration methods are convenient for on-site adjustment



Residual chlorine meter

Residual chlorine meter TRC/ERC400



Parameters

| Residual chlorine meter | |
|-------------------------|--|
| Display | 7 inch touch screen |
| Protective box size | Dimensions: 400mm×300mm×200mm Window size: 155mm×87mm |
| Measuring range | Residual chlorine: (0~5) mg/L Temperature: (0.1~40.0)°C |
| Transmit output | (4~20)mA (optional) |
| Communication | MODBUS RS485 |
| Load Resistance | ≤750Ω |
| Environment humidity | ≤95% no condensate |
| Power supply | 220VAC |
| Ingress protection | IP43 |

| Residual chlorine electrode | |
|--------------------------------|---|
| Measurement content | HClO、ClO ₂ |
| measuring system | Microelectronics MEMS technology, special membrane structure |
| Measuring range | (0~5) mg/L |
| Accuracy | When ≤0.1mg/L, the absolute error is ±0.01mg/L; When ≥0.1mg/L, ±5% of the measured value or ±0.02mg/L (whichever is greater) |
| Resolution | 0.01 |
| Polarization time | When using for the first time, first pass water for 2 hours in chlorinated water, and then power on for half an hour. |
| Response time | Less than 30s after polarization is completed |
| Minimum conductivity | ≥100us/cm, can not be used for ultrapure water |
| Operating temperature | (0~40)°C (non-condensing) |
| Temperature compensation | Pt1000 with built-in integrated automatic compensation |
| Max pressure | 4bar |
| Recommended flow rate | ≥0.03m/s in flow cell |
| pH range | (5~9) pH, below 5 will damage the membrane head |
| Maximum chlorine concentration | ≥5ppm |
| Power supply | Standard 24V DC±2V; optional 12V DC±2V |
| Power consumption | 1.56W |
| Digital communication | MODBUS RS485 |
| Cable length | Standard 3 meters, others can be customized |
| Probe weight | 210g |
| Thread size | NPT 3/4 |
| Connection method | 5-pin waterproof aviation plug |
| Moisture-proof material | PVC and Viton® O-ring seals |

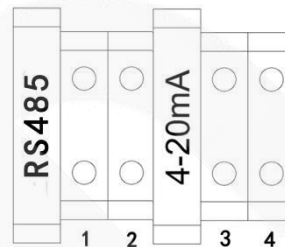
Residual chlorine meter TRC/ERC400



Wiring

Residual chlorine meter wiring definition

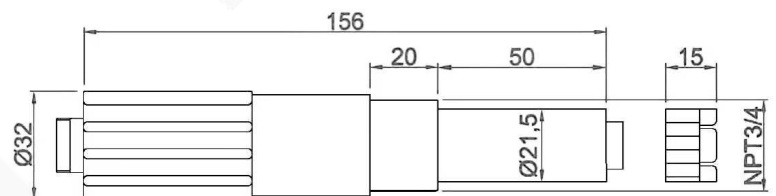
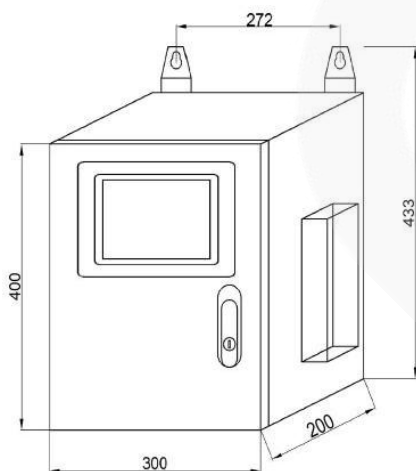
- 1 --- RS485A
- 2 --- RS485B
- 3 --- 4-20 mA +
- 4 --- 4-20 mA -



Sensor Wiring Definition

| Core number | 1 | 2 | 3 | 4 | 5 |
|-------------|--------|--------|---------|---------|-------------|
| Sensor wire | Red | Black | Yellow | Green | White |
| Signal | +24VDC | -24VDC | RS485 A | RS485 B | Ground wire |

Dimension



Unit: mm

Residual chlorine meter TRC/ERC400



Ordering code

| TRC400 -RT1-O0-D1-I1-V1 | | | | | | | | | | | Description | |
|-------------------------|-----|----|----|----|----|---|---|---|---|---|-------------|--------------------|
| TRC400 | - | - | - | - | - | - | - | - | - | - | - | (0~5) mg/L |
| Type | RT1 | | | | | | | | | | | No |
| Transmit output | | O0 | | | | | | | | | | (4~20) mA |
| | | O1 | | | | | | | | | | RS485 |
| Communication | | | D1 | | | | | | | | | 2 relay outputs |
| Relay output | | | | A2 | | | | | | | | 220VAC(140~240VAC) |
| Power supply | | | | | V1 | | | | | | | |

| ERC400 -ST1-C1-D1-V1-CS3 | | | | | | | | | | | Description | |
|--------------------------|-----|---|----|----|------|---|---|---|---|---|-------------|--------------------------|
| ERC400 | - | - | - | - | - | - | - | - | - | - | - | Compact type |
| Type | ST1 | | | | | | | | | | | PT1000 temp compensation |
| Compensation Type | C1 | | | | | | | | | | | RS485 |
| Communication | | | D1 | | | | | | | | | 24VDC (22~26VDC) |
| Power supply | | | | V1 | | | | | | | | 12VDC (10~14VDC) |
| | | | | V3 | | | | | | | | 3m |
| Power supply | | | | | CS3 | | | | | | | XXm |
| | | | | | CSXX | | | | | | | |