

Conductivity

90S430100 · 90S430130



Conductivity sensors are measuring devices that measure the ability of a measuring medium to conduct electric current between two electrodes. The current flows by ion transport. This means that measuring media with a higher number of ions conduct the current better.

A conductivity detector is used for digital measurements of conductivity in pure or process water.

Advantages

- Reliable measurements through graphite electrodes
- Measuring method with two conductive measuring probes and temperature compensation
- PVC housing and graphite electrodes
- No mechanically moving parts
- Immediate installation and easy operation
- Modbus RTU

Conductivity

Technical Specifications

| | | |
|---------------------------------|---|---------------------|
| Measurement technology | Conductivity | |
| Measurement principle | Conductivity with two graphite electrodes | |
| Parameters | Conductivity | |
| Measurement range | 0.00 μS ... 20000 μS | |
| Measurement accuracy | $\pm 0.5 \mu\text{S}$ at 20 μS $\pm 5 \mu\text{S}$ at 200 μS $\pm 50 \mu\text{S}$ at 2000 μS $\pm 500 \mu\text{S}$ at 20000 μS | |
| Response time | T90 < 60s | |
| Temperature compensation | Via NTC | |
| Housing material | PVC housing, graphite electrodes | |
| Dimensions (L x Ø) | 220 mm x 33 mm | ~ 8.7" x 1.3" |
| Interface | RS-485 Modbus RTU | |
| Power supply | 12...24 VDC | |
| Connection | 8-pin M12 connector, cable length 2 m or 10 m | |
| Maintenance interval | 2 years | |
| System compatibility | Modbus RTU | |
| Warranty | 1 year (EU & US: 2 years) on electronics; wear parts are excluded from the warranty | |
| Process pressure | 10 bar | ~ 145 psig |
| Calibration method | One-point calibration with standard measuring solution | |
| Process temperature | 0...50°C | ~ +32 °F to +122 °F |