



SENSORS &
CONTROLLERS



ANALYZERS
& SAMPLERS



LEVEL, FLOW
& PRESSURE



WEB APP &
DATALOGGING



ACCESSORIES

S494 DATASHEET

AMPEROMETRIC MEMBRANE SENSOR



MAIN FEATURES

- Two membrane-coated electrodes for the measurement of free inorganic chlorine at constant pH.
- Integrated temperature sensor for signal compensation

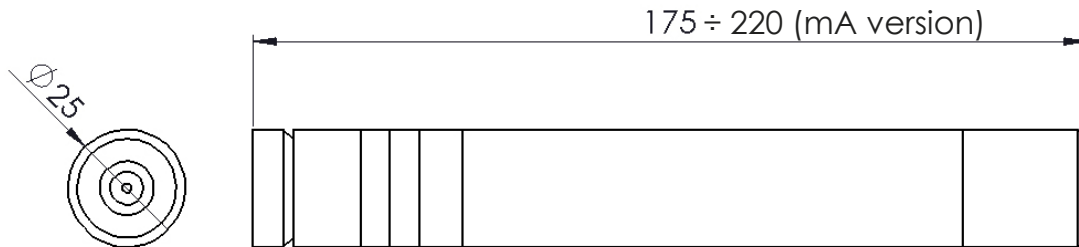
APPLICATIONS

- Swimming Pool
- Drinkable
- Service and process waters
- Tensioactives are partially tolerated

TECHNICAL DATA

| | |
|-----------------------------|--|
| Materials | • PVC-U body • Semipermeable membrane |
| Measurand(s) | NaClO (sodium hypochlorite), Ca(ClO) ₂ (calciumhypochlorite), Cl ₂ (chlorine gas), chlorine generated by membrane-electrolysis |
| Measuring ranges | 0.01 – 0.50 0.01 – 2.00 0.01 – 5.00 0.01 – 10.00 0.01 – 20.00 0.1 – 100 0.1 – 200 |
| Calibration | at the controller, via analytical chlorine determination by DPD-I method |
| Interferences | – ClO ₂ is being registered with factor 9 of its measured value – O ₃ is registered – with membrane-less chlorine electrolysis interferences may occur |
| pH range | 6 - 8 |
| Resolution | 0.01 ppm for ranges from 0.01 ppm to 20.00 ppm 0.1 ppm for ranges from 0.1 ppm to 200.00 ppm |
| Pressure range | – Operation without circlip: 0 – 0.5 bar, no pressure surges and/or vibrations – Operation with circlip: 0 – 1.0 bar, no pressure surges and/or vibrations |
| Temperature range | 0 – 45 °C (no ice crystals in measurement water) |
| Temperature compensation | Integrated automatic |
| Time of response | T ₉₀ : approx 30s |
| Absence of the disinfectant | max. 24 h |
| Flow rate | Approx. 15 – 30 l/h, low flow-dependence |
| Shaft length | Standard 175 mm, and up to 220 mm in length (mA-Version) |
| Connection | Standard 4-pole plug; for mA-version 2-pole terminal, M12 male or Modbus RTU with M12 male |
| Output signal | 4 – 20 mA |
| Power supply | 12 – 30 Vdc; R _L = 50 – 900 Ω |

DIMENSIONS



ORDER CODES

| | |
|------------|--|
| 602302101 | S494/05/CL2 Amperometric sensor for free chlorine |
| 6023021201 | S494/2/CL2 Amperometric sensor for free chlorine |
| 6023021202 | S494/5/CL2 Amperometric sensor for free chlorine |
| 6023021203 | S494/10/CL2 Amperometric sensor for free chlorine |
| 602302102 | S494/100/CL2 Amperometric sensor for free chlorine |
| 6023021346 | S494/200/CL2 Amperometric sensor for free chlorine |