

AMPEROMETRIC SENSORS FOR CHLORINE MEASUREMENT



General features

The **S494** are amperometric probes with two (2) or three (3) electrodes covered with membrane with integrated temperature sensor for signal compensation.

Applications

Swimming pool, drinking water, waste water, process water.



Digitizer for amperometric sensors

The AD Series Chemitec digitizer converts the S494 sensor signals into serial signal with standard Modbus RTU protocol allowing the connection to the **50Series** plug & play digital instrument.



Technical specifications

Measuring parameters	Free Chlorine ; Total Chlorine ; Organic and Inorganic Free Chlorine ; Chlorine Dioxide ; Ozone ; Peracetic Acid ; Hydrogen Peroxide ; Chlorites
Measuring error	±2 % of the indicated value
Repeatability	±2 %
Stability	±1 % of the analytical determination after 4 weeks from the calibration
Operating conditions	Sample speed on the membrane 15 cm/sec Constant flow rate of the hydraulic supply 30 ÷ 40 l/h Acceptable overpressure 1 bar
Operating temperature	> 5 up to 45 °C (other on request)
Temp. compensation	automatic through NTC integrated sensor
Time	First polarization from 1 to 3 h ; Repolarization 30 min
Response	60 sec for 90% f.s.
Body material	PVC, silicon, PTFE
Membrane	PTFE (Teflon) semipermeable
Measuring electrode	(Cathode) Gold
Reference electrode	(Anode) Silver/Silver Chloride
Calibration point	Zero not necessary Work according to user requirement, through analytical determination (colorimetric with DPD)
Warnings	Maintenance interval 2 weeks or more Life time of the electrolyte solution approx. 1 year

Measuring parameters	Measuring range	pH operating range
Free Chlorine	0.01 ÷ 0.50 ppm; 0.01 ÷ 2.00 ppm; 0.01 ÷ 5.00 ppm; 0.01 ÷ 10.00 ppm; 0.01 ÷ 20.00 ppm; 0.1 ÷ 200.00 ppm	5.5 ÷ 7.2 pH
Total Chlorine	0.01 ÷ 0.50 ppm; 0.01 ÷ 2.00 ppm; 0.01 ÷ 5.00 ppm; 0.01 ÷ 10.00 ppm	4 ÷ 12 pH
Organic and Inorganic Free Chlorine	0.01 ÷ 2.00 ppm; 0.01 ÷ 5.00 ppm; 0.01 ÷ 10.00 ppm	4 ÷ 11 pH
Chlorine Dioxide	0.01 ÷ 0.50 ppm; 0.01 ÷ 2.00 ppm; 0.01 ÷ 5.00 ppm; 0.01 ÷ 10.00 ppm	1 ÷ 11 pH
Ozone	0.01 ÷ 0.50 ppm; 0.01 ÷ 2.00 ppm; 0.01 ÷ 5.00 ppm	2 ÷ 11 pH
Peracetic Acid	0 ÷ 500 ppm; 0 ÷ 1000 ppm; 0 ÷ 2000 ppm; 0 ÷ 10000 ppm; 0 ÷ 20000 ppm;	1 ÷ 7 pH
Hydrogen Peroxide	0 ÷ 500 ppm; 0 ÷ 1000 ppm; 0 ÷ 2000 ppm; 0 ÷ 10000 ppm	2 ÷ 11 pH
Chlorites	0.05 ÷ 2 ppm	6 ÷ 9 pH



Mounting in constant flow-through electrode holder for Chlorine, Chlorine Dioxide, Ozone, Chlorites, PAA, H₂O₂ and other membrane sensors. **S305PX494**

Materials

Cell and mounting brackets	Plexiglass
Connections and valves	PVC
Floating system	Stainless Steel
O-Ring	NBR

Operating conditions

Operating temperature	max 60°C (80°C on request)
Operating pressure	maximum 4 bar