

ACL 2920

Chloride Analyser



Main characteristics

MEASUREMENT RANGE : 1 à 10000µg/l

ON-LINE AND CONTINUOUS MEASUREMENT

MEASUREMENT DISPLAY OVER 7 DAYS

DROP-DOWN MENUS

AUTOMATIC CALIBRATION

TESTED RELIABILITY

LOW MAINTENANCE COSTS

CLIMATIC ENCLOSURE

On-line and continuous analyser of dissolved chloride or on sample, if required.

HIGHER PERFORMANCES

Relative error : $< \pm 10\%$ or $\pm 3 \mu\text{g/l}$

Stability (1 week) : $\pm 10\%$

Repeatability : $< \pm 5\%$

OPERATION PRINCIPLE

This chloride analyser uses a high-performance specific electrode, associated to a sample conditioning system using diluted acetic acid.

All the hydraulic part is integrated in an enclosure cooled and with thermostat control at 8°C.

The automatic 4-point calibration is carried out by generation chlorides. The calibration results are recorded.

This calibration system takes into account :

- past calibrations,
- acceptance criteria (e.g., calibration repeatability),
- detection of any calibration system failure.

LOWER COSTS

High measuring electrode lifetime

High availability : $< 2\text{h}$ each month

Low cost and safety conditioning agents

ERGONOMICS

On-line help

Self diagnostic

Clear dialogue

Fully automatic calibration

Built-in self-test

Dialogue and control by drop-down menus

OPTIONS

Automatic injection system of sample solutions

Stainless support chassis with wheels

By-pass flow

Measuring line flow

Sample water temperature



General features	
TESTED RELIABILITY	Simple and modular concept for easy maintenance Construction with high quality components : e.g. stainless pressure regulator
DISPLAY	Chloride concentration Electrode voltage Sample temperature (option) By-pass flow (option) Measurement line flow (option), Information messages alarms
MODERN ELECTRONIC	Can be installed until 30 m Large backlit graphic LCD With PC board Computation power and storage capacity Drop-down menus Graphic measurement display and 7-day measurement history 2 analog outputs 0-20 mA or 4-20 mA 3 assignable thresholds 5 assignable relays

Technical specifications		Optional		
	Chloride	Temperature	By-pass flow	Measurement flow
Measurement range	1 µg/l - 10 mg/l	0 – 100°C	0 – 20 l/h	0 – 1 l/h
2 analog outputs	1 Log range or 4 linear ranges configurable with or without change of display range	1 linear range 0 – 100°C	1 linear range 0 – 20l/h	1 linear range 0 – 1l/h
Resolution	0,1 % of FS or 1 µg/l	0,1°C	0,1 l/h	0,001 l/h
Repeatability	5% of measure or 1 µg/l			
Error	10% of measure or 3 µg/l	1°C	5%	1%
Stability	10% of measure / week			
Automatic drift compensation by automatic calibration system				
Response time (90% of signal) : 5 min if ≥100 µg/l and 15 if ≤50 µg/l				

Environment	
Ambient environment	
Temperature	10°C to 40°C
Humidity	0 to 95% HR (without condensation)
Sample water	
Pressure	1 to 8 relative bar (for other pressures, please contact us)
Temperature	10°C à 45°C
Flow	0,7 to 1 l/h (1-20 l/h with optional by-pass)
pH	< 9.5 pH units
Input/Output	
Alarms	3 assignable thresholds (Cl-, Temperature, Cl-flow, By-pass flow)
Outputs	2 analog outputs 0-20m mA or 4/20 mA. Max charge : 500Ω Galvanically insulated 5 relays assignable to 1 or several events (failure, unavailability, thresholds) Nominal power : 0.5A/24V _{DC} or 0.15A/230V _{AC}
Electrical connectors	By connecting block
Hydraulic connectors	Input / output rigid or semi-rigid tubes diam. ext : ¼"

Electrical characteristics	
Power supply electronic unit	
Voltage	110 / 230 V _{AC} ±10%
Frequency	47 to 63 Hz
Power	40 VA
Power supply hydraulic unit	
Voltage	230 V _{AC} ±10%
Power	2000W max.

Physical characteristics	
Enceinte hydraulique (mm)	500 (W) x 1000 (H) x 500 (D)
Electronic unit (mm)	306 (W) x 245 (H) x 165 (D)
Weight (kg)	Hydraulic unit : 75 Electronic unit : 10



ELTA - 14, place Marcel Dassault BP 48 31702 BLAGNAC CEDEX - FRANCE
 Phone : +33 (0) 5 34 36 10 00 Fax : +33 (0) 5 34 36 10 01 www.elta.fr
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Electronics for Harsh Environments