

Chloride Measurement

Potentiometric method (ISE):

Measurement by selective ion electrode (ISE) combined with addition of standard.

Reaction time 10-11 min.

Sensors/Measurement Equipment

ISE electrode
Reference electrode (Double junction):
Internal Part KCl 3M
External Part KNO3 1M
Temperature controlled measuring chamber

Analyzer Measuring range

Topaz Chlorides 0-200 ppm

Repeatability 5% FS
Accuracy 5% FS

Automatic baseline adjustment.

Sample flow surveillance.

Control of the slope of the electrode automatically.

Topaz Chloride Measurement Scheme

Specifications and Functionality

Dosing pump type peristaltic
Pump quantity 2
Pump for demineralized water 1

Power supply

Voltage: 110 - 240 VAC
Frequency: 50 /60 Hz
Power consumption: Typical 150 VA, 300 max.

Operation

Display: Color LCD display, 7", touchscreen
Display of process value, alarm status and time during operation.

Smart and intuitive interface based on separate menu sections: "Measurement", "Diagnostic" and "Tools".

User menus in English and French.

Password protection and storage of data records. Storage and graphical display of measurement history.

Alarm Relays

1 summary alarm for "analyzer failure"

Maximum load: 1A / 24 V

Relay Outputs

2 potential-free contacts for each channel programmable as limit switches for measuring values (high/low thresholds)

1 sample flow alarm for each channel

1 output for indication of the active sample stream for each channel.

1 output for maintenance indication.

Rated load: 1A / 24 V

Signal outputs

2 programmable signal outputs for measured values (freely scalable, linear).

Current loop: 4 - 20 mA

Communication interface

RS485 interface (galvanically separated) with Modbus/JBUS RTU protocol included in standard.

Ethernet interface (TCP/IP) optional.

Analyzer Data

Sample conditions

Flow rate: min 30 l/h
optimum 40 l/h
Temperature: 5 to 40 °C
Inlet pressure_{Abs.} (25 °C): 0.1 up to 2.0 bar
Outlet pressure: pressure-free
Particle size: < 20 µm

Ambient Conditions

Temperature: 5 to 40 °C
Humidity: 10 to 80% rel.

Sample connections

Sample inlet: 1/4" BSP F
Sample outlet: soft tubing D INT 9
Sample outlet waste: soft tubing D INT 12
Sample outlet (Multi-ch.): soft tubing D INT 18

Wall cabinet

Dimensions: 780 x 570 x 370 mm
Material: Stainless Steel 316L
Total weight: 35 kg
Protection degree: IP 55

Reagent specifications

Type	Code
Demineralized Water	RXX273
Reagent Consumption	
4l/month (1 slope control/week)	
Sodium Nitrate 1M	RXX109
Reagent Consumption	2.1l/month
Chloride Standard	RXX256
(The concentration of the standard depends on the range)	
Reagent Consumption	3.7l/month