

ChemScan[®] mini Mono

MONOCHLORAMINE ANALYZER

Monitor Your Process with Real-time Data

The new single parameter in-line analyzer family utilizes years of ChemScan experience and proven technology to provide reliable and accurate analysis of water and wastewater. This device has been designed from the ground up to reduce maintenance requirements, includes large ID sample tubing to minimize plugging and only needs quarterly reagent refills.

FEATURES

- Automatic Analysis Utilizing Proven Method
- Low Maintenance
- Proven Sample Handling with Large I.D. Flow Paths
- Simple Field Adjustable Calibration
- Sample Blank to Eliminate Background Interference
- Automatic Cleaning

CAPABILITIES

- Automatic Analysis
- Continuous Output
- Multiple Data Communication Interface Options

APPLICATIONS

- Potable Water
- Wastewater Effluent

BENEFITS

- High Reliability
- Low Capital Cost
- High Accuracy
- Low Operating Cost



SPECIFICATIONS

Range: (as CL ₂)	0.05 - 10.0 mg/L (Method 1035)
Accuracy:	5% of value or 2x detection limit (whichever is greater)
Cycle Interval:	10 minutes to 9999 minutes (field programmable)
Environment:	5 - 50 degrees C (method dependent)
Power:	100 - 240 VAC, 50 W
Enclosure:	NEMA 4X
Safety Approval:	CSA-US
Sample Requirements:	0.5 - 1 Liter/analysis, pressure 2 to 10 psi, <150 mg/L TSS, <60 NTU
Maintenance:	Reagent replacement every 3 months, pump kit yearly
Relay Contacts:	1 SPDT Concentration, 1 SPDT Programmable
Serial Interface:	RS-232 Maintenance Port
Analog Output:	Isolated 4-20 mA

ChemScan
An In-Situ Brand

"Monitoring a World of Water"

REPRESENTED BY:

CCLYNCH
& ASSOCIATES
The Water Monitoring People

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Monochloramine Monitoring ChemScan® mini Mono Analyzer Technical Specification¹

FUNCTIONS AND OUTPUTS

Parameter	Monochloramine as Cl ₂
Measurement Principle	Optical Absorbance
Detector	Photodiode
Wavelength	660 nm
Calibration	Factory calibrated
Number of Parameters	One – Monochloramine (See UV- Series ChemScan Analyzers for multiple parameters)
Data Communications	Isolated 4-20 mA Analog (2 outputs available), RS-232
Data Log	10,000 Values Time / Date Stamped
Auto Zeroing	Sample Blank on Each Reading to Correct for Sample Color and Turbidity
Auto Cleaning	Yes (Standard)
Analyzer Sample Pump	No – Pressurized sample required – See below
Reagent Addition	Yes (Standard), Direct Reagent Injection
Number of Sample Lines	One (See UV- Series ChemScan Analyzers if multiple sample lines are required)

INPUTS

Auxiliary Inputs	5-30V AC/DC 10 mA nominal, opto-isolated, LED indicator lights
External Run	Analyzer disabled when signal is high (5 – 30 V AC/DC)
External Loss of Flow Switch	Analyzer disabled when external flow switch signal is high (5 – 30 AC/DC)

OUTPUTS

Data Communications	30V AC/DC 100 mA max. total, opto-isolated, fused, LED indicator lights
Data Log	Isolated 4-20 mA Analog (2 outputs available) Serial RS-232
Alarm # 1 SPDT Relay Contact	10,000 Values, Time / Date Stamped
Alarm # 2 SPDT Relay Contact	High OR Low Concentration - Programmable
	Programmable

PERFORMANCE SPECIFICATIONS²

Reading Interval	10 to 9999 minutes
Reaction Time	10 minutes minimum
Range	Monochloramine 0.05 - 10.0 mg/l as Cl ₂
Limit of Detection ¹	0.02 mg/L as Cl ₂
Accuracy ²	5% of value or 2x detection limit (whichever is greater)
Precision ²	< 0.02 mg/L as Cl ₂
Resolution	0.01 mg/L as Cl ₂

SAMPLE PARAMETERS

Sample Pressure	Pressurized Sample Line Required, Regulated to 15-70 kPa (2-10 psi),
Sample Flow	0.5 to 5.0 l/min. 1.5 L flush per sample (0.13 to 1.32 gpm – 0.4 gallon flush)
Filtration Requirement	None (For samples meeting turbidity and solids requirements)
Strainer Requirement	#20 Mesh - Openings of 0.7 mm (0.03 inches) provided
Sample Temperature	1 ^o - 60 ^o C (34 – 140 ^o F)
Sample Turbidity	0 - 60 NTU (Standard)
Sample Suspended Solids	0 - 150 mg/l TSS

MAINTENANCE

Reagent Replacement	As Required (12 weeks typical)
Cleaning Solution Refill	As Required (12 weeks typical)
Peristaltic Air Pump Head (Cassette)	Replace after six months of operation
Peristaltic Air Pump Full Assembly	Replace after twelve months of operation
Peristaltic Zeroing / Cleaning Pump Head	Requires no regular maintenance

INSTRUMENT SPECIFICATIONS

Size	66 cm tall x 24 cm wide x 18 cm deep (26" tall x 9.5" wide x 7" deep)
Weight	12.25 kg (27 lbs)
Mounting	Wall (Standard)
Finish Coating / Material	Fiberglass Reinforced Plastic (FRP) - Polyester
Power	120-240 VAC ±10%, 50-60 Hz, 75 watts
Power Connection	120 VAC US cord / plug set (Standard) (conduit connection optional)
Power Condition	Dedicated Circuit, Free From: Surges/Dips > 10%, RF and Switching Noise
Operator Interface	2 x 20 LCD and 4 x 4 Keypad
Sample Cell Material	Polymer Body with Quartz Windows
Sample Connection	¼" FNPT Fitting
Waste Connection	6 foot length of 5/8" ID clear vinyl tube provided (route to open drain)
Cleaning Solution Container	10 Liters (2.5 gallon)
Reagent Containers	Two 2 Liter Bottles wall-mounted (PVC rack provided)

OPERATING ENVIRONMENT

Enclosure Rating	Upper: NEMA 4X Fiberglass Reinforced Plastic - Polyester with Acrylic window
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Ambient Temperature
Relative Humidity

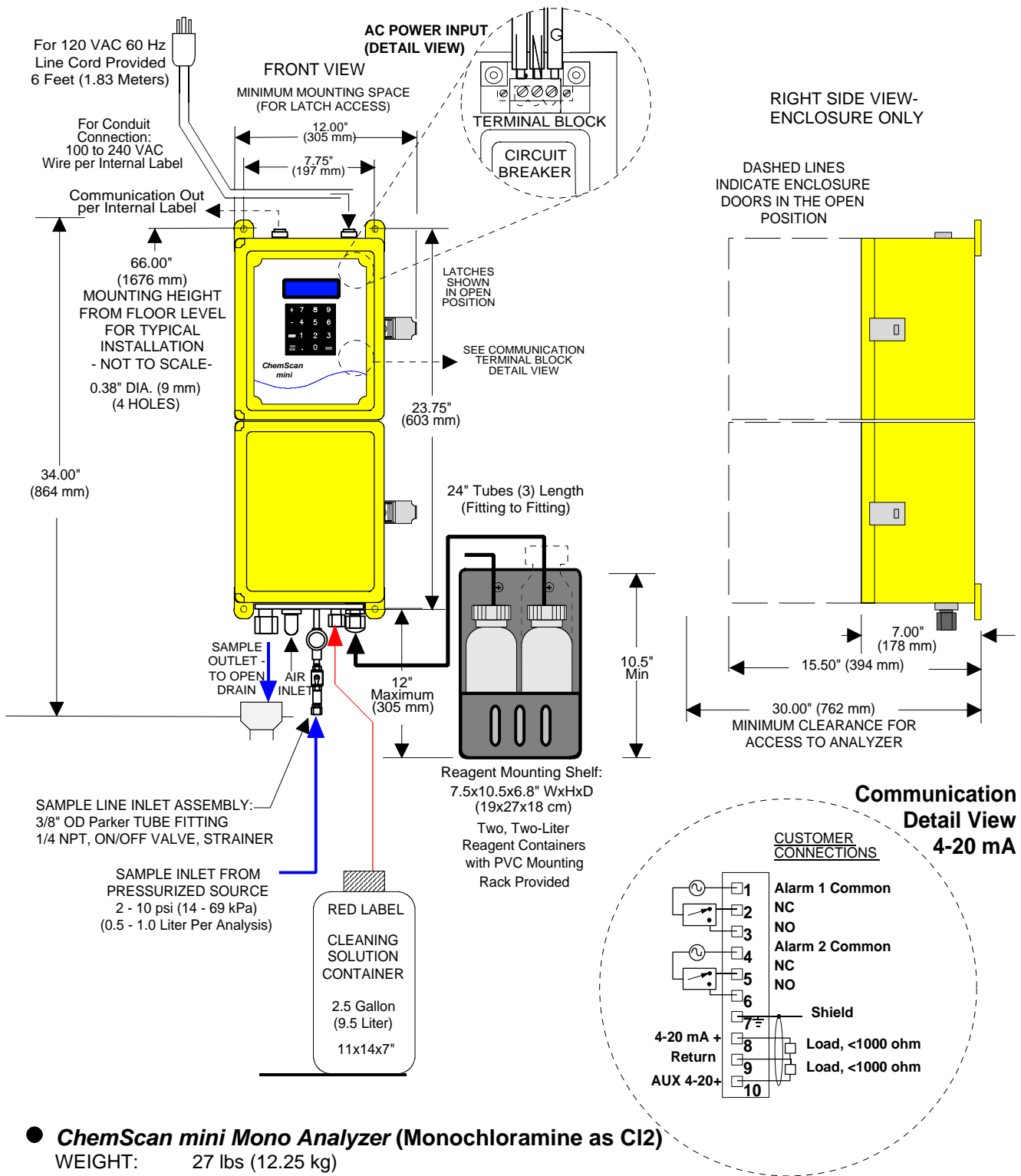
Lower: NEMA 4X Fiberglass Reinforced Plastic - Polyester
5 - 35°C (41 – 95°F)
0 - 100% (Non-Condensing)
For installation in an indoor or sheltered location

SAFETY APPROVAL

CSA - US

Notes:

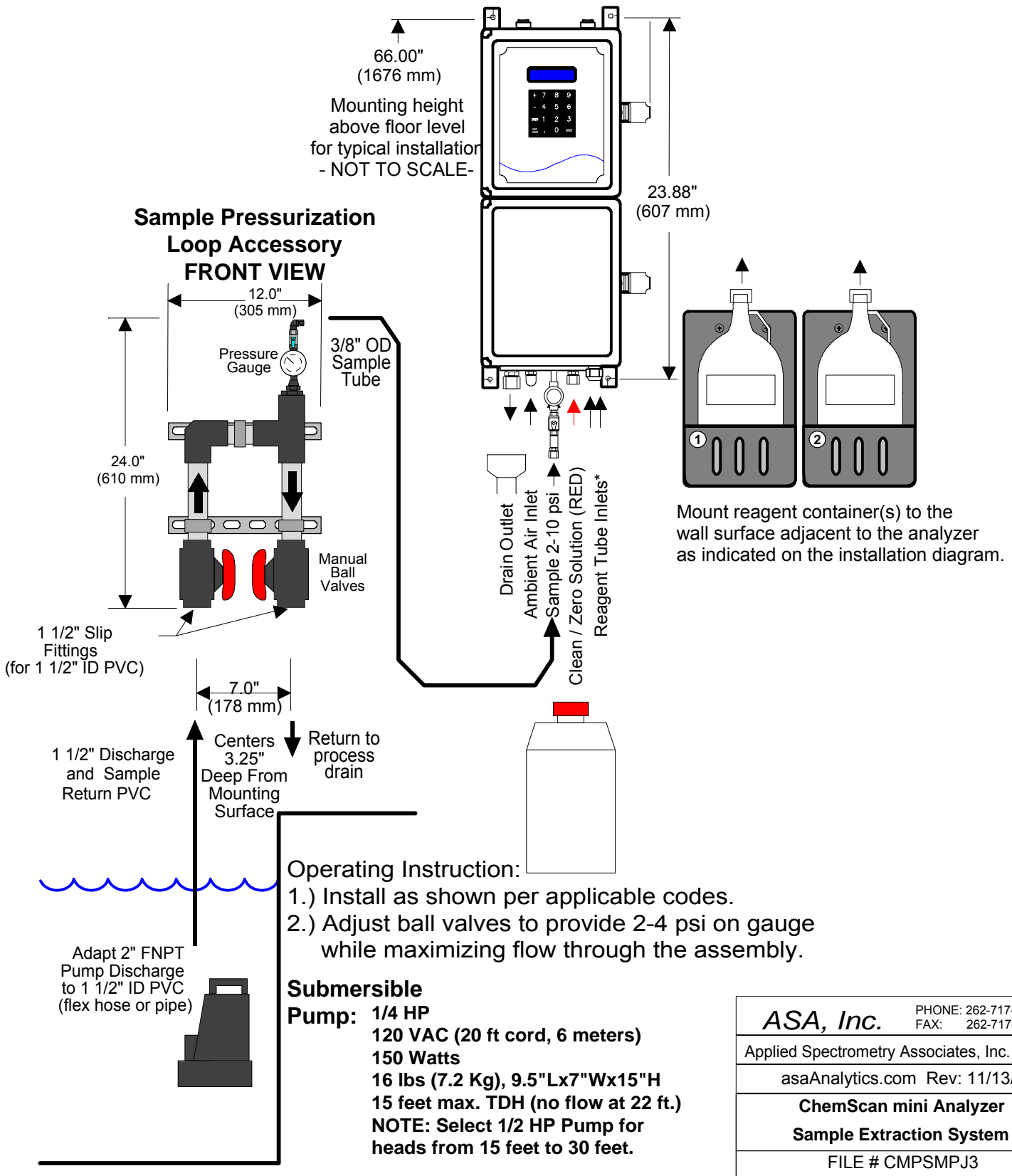
1. Technical Specifications are subject to change without notice.
2. All performance specifications are based on analysis of water standards under factory conditions.
Test in Accordance with US EPA 40 CFR APPENDIX B PART 136
Test in Accordance with US EPA SW-846



- **ChemScan mini Mono Analyzer (Monochloramine as Cl2)**
 WEIGHT: 27 lbs (12.25 kg)
 DIMENSIONS: 26.0 x 9.50 x 7.0" DEEP, (66 x 24 x 18 cm)
 POWER: 100 - 240 VAC, 50 / 60 Hz, 1 AMP
 ENCLOSURE: NEMA Type 4X Fiberglass Enclosure
 Intended for Installation Indoors

ChemScan mini Mono, Monochloramine Analyzer Installation Diagram

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ChemScan mini Analyzer Sample Extraction System	
FILE # CMPSPMJ3	

**ChemScan mini Analyzer
and Sample Extraction Accessory
(Sample Pump & Sample Loop)**