

## Ammonia Monitoring ChemScan® mini LowAm Technical Specification<sup>1</sup>

### FUNCTIONS AND OUTPUTS

|                        |   |
|------------------------|---|
| Parameter              | Total Ammonia (NH <sub>3</sub> -N+NH <sub>4</sub> -N)                         |
| Measurement Principle  | Optical Absorbance  |
| Detector               | Photodiode  |
| Spectral Range         | 660 nm  |
| Calibration Technique  | Factory calibrated for Salicylate reagent-based absorbance                    |
| Number of Parameters   | One – Ammonia (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           | Yes (Standard)  |
| 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) |

### PERFORMANCE SPECIFICATIONS<sup>2</sup>

|                  |  |
|------------------|--|
| Reading Interval | 15 to 9999 minutes                                       |
| Response Time    | 15 minutes minimum                                       |
| Range            | 0.01 – 10.0 mg/L   |
| Accuracy         | 2% of value or 2x detection limit (whichever is greater) |
| Precision        | Less than 0.5% of Range                                  |
| Zero Drift       | Less than 0.5% of Range (with Auto Zero)                 |

### SAMPLE PARAMETERS

|                         |  |
|-------------------------|--|
| Sample Pressure         | Pressurized Sample Line Required Regulated to 15-70 kPa (2-10 psi),<br>(Sample extraction accessory available – Pump and Sample Circulation Loop Assembly) |
| 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 <sup>o</sup> - 60 <sup>o</sup> C (34 – 140 <sup>o</sup> F)   |
| Sample Turbidity        | 0 - 60 NTU (Standard)  |
| Sample Suspended Solids | 0 - 150 mg/l TSS   |

### MAINTENANCE

|  |  |
|--|--|
| Reagent Replacement                    | As Required (4 weeks typical)            |
| Cleaning Solution Refill               | As Required (4 weeks typical)            |
| Peristaltic Mixing Pump Head           | Replace after six months of operation    |
| Peristaltic Mixing Pump Replacement    | Replace after twelve months of operation |
| Peristaltic Zeroing/Cleaning Pump Head | Replace after two years of operation     |

### 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)   |
| Power                       | 120-240 VAC ±10%, 50-60 Hz, 70 VA   |
| Power Connection            | 120 VAC US cord / plug set (Standard) (conduit connection optional)           |
| Power Condition             | Dedicated Branch 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) Typical location is on the floor below the analyzer    |
| Reagent Container           | 4 Liter (1 gallon) Wall-mounted, PVC rack (provided)                          |

### OPERATING ENVIRONMENT

|                     |  |
|---------------------|--|
| Enclosure Ratings   | Upper Enclosure: NEMA 4X (Fiberglass Reinforced Plastic) Polyester, Acrylic window<br>Lower Enclosure NEMA 4X (Fiberglass Reinforce Plastic) Polyester |
| Ambient Temperature | 5 - 35 <sup>o</sup> C (41 – 95 <sup>o</sup> F)   |
| Relative Humidity   | 0 - 100% (Non-Condensing)<br>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.

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