

Chloramination Monitoring

ChemScan® UV-2150/S Series Technical Specification¹

FUNCTIONS AND OUTPUTS

Measurement Principle	High Resolution, Ultraviolet Absorbance via Optical Spectrometer
Detector	256 Element Array
Spectral Range	200 - 450 nm
Calibration Technique	Pattern Recognition of Spectral Data
Number of Parameters	Four per Sample Line (special for chloramination monitoring)
Parameter Options	Free Ammonia, Total Ammonia, Monochloramine, Total Chlorine, UV Absorbance or Transmittance
Data Communications	4-20mA (4 outputs per sample line max.), Modbus RTU, RS-232, others optional
Data Log	750 Values Time / Date Stamped, 24 Calibration Spectra
Auto Zeroing	YES (Standard)
Auto Cleaning	YES (Standard)
Analyzer Pump	YES (Standard) Zeroing, Cleaning and Internal Sample Flow Only
Reagent Addition	YES (Standard), Direct Reagent Injection
Number of Sample Lines	1 or 2 through Internal Manifold

PERFORMANCE SPECIFICATIONS²

Reading Interval	10 to 9999 minutes
Response Time	10 minutes for the entire four parameter suite
Range	Free Ammonia 0.02 - 5.00 mg/l as N Total Ammonia 0.02 - 5.00 mg/l as N Monochloramine 0.01 - 5.0 mg/l as Cl ₂ Total Chlorine 0.01 - 5.0 mg/l as Cl ₂ Transmittance 0 – 100% T, Absorbance 0 – 3.000 AU
Accuracy	+/- 0.02 or 2% (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 Lines Std. Regulated to 34-69 Kpa (5-10 psi), (10 psi Fixed Pressure Regulators Provided) (Unpressurized Optional)
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 - Opening of 0.69 mm (0.027 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

Light Source Replacement	Every 4 years
Internal Battery Replacement	Every 2 years
Zero & Cleaning Solutions Refill	As Required (4 weeks typical)
Reagents Refill	As Required (4 weeks typical)

INSTRUMENT SPECIFICATIONS

Size	102 x 51 x 26 cm (40 x 20 x 10 inches)
Weight	59 kg (130 lbs)
Mounting	Wall (Standard) or Stand (Optional)
Finish Coating / Material	Polyurethane Enamel over Polyester Urethane on Steel (Standard) or Type 316 Stainless Steel (Optional)
Power	120 VAC ±10%, 50-60 Hz, 4 Amps maximum
Power Connection	Hard Wired (Standard) or Plug (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	¼" FNPT Fitting (Open Drain Required)

OPERATING ENVIRONMENT

Enclosure Ratings	Upper Enclosure: NEMA 4 (NEMA 4X Optional, 316 SS) Lower Enclosure NEMA 3R(Optional, 316 SS) (shielded spill drain)
Ambient Temperature	5 ^o - 45 ^o C (41 – 113 ^o F)
Relative Humidity	0 - 100% (Non-Condensing) For installation in an indoor or sheltered location

Notes:

1. Technical Specifications are subject to change without prior notice.
2. All performance specifications are based on analysis of drinking water standards under factory conditions.