

Chloramination Monitoring ChemScan® UV-2150/S Technical Specification¹

FUNCTIONS AND OUTPUTS

Measurement Principle	High Resolution, Ultraviolet Absorbance
Number of Wavelengths	256
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 - 10.0 mg/L as Cl ₂ Total Chlorine 0.01 - 10.0 mg/L as Cl ₂ Transmittance 0 – 100% T, Absorbance 0 – 3.000 AU
Accuracy	2% to 5% of Range
Precision	Less than 0.5% of Range
Zero Drift	Less than 0.5% of Range (with Auto Zero)

SAMPLE PARAMETERS

Sample Pressure	Pressurized Lines Std. regulated to 34-69 Kpa (5-10 psi), 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 gallons flush)
Filtration Requirement	NONE (For samples meeting turbidity and solids requirements)
Strainer Requirement	#20 Mesh - Opening of 0.69 mm (0.027 inches)
Sample Temperature	1 ^o - 60 ^o C (34 - 140 ^o F)
Sample Turbidity	0 - 15 NTU (Std)
Sample Suspended Solids	0 - 35 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)
Reagent 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)
Enclosure Finish Coating	Polyurethane Enamel over Polyester Urethane on Steel (Std) or 316 SS (Opt)
Power	120 VAC ±10%, 50-60 Hz, 4 Amps max.
Power Connection	Hard Wired (Std) or Plug (Opt)
Power Condition	Dedicated Branch Circuit Free From: Surges/Dips >10%, RF & 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 (NEMA 3R Optional, 316 SS) (shielded spill drain)
Ambient Temperature	5 - 35 ^o C (41 - 95 ^o F)
Relative Humidity	0 - 100% (Non-Condensing)

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.