

ChemScan® UV-3100
TECHNICAL SPECIFICATION

FUNCTIONS AND OUTPUTS

Measurement Principle	High Resolution, Ultra-Violet Absorbance
Number of Wavelengths	256
Spectral Range	200 - 450 nm
Calibration Technique	Pattern Recognition of Spectral Data
Number of Parameters	2 max.
Parameter Options	Primary Absorbance Only (See Table 1)
Data Communications	4 - 20mA (2 outputs max.), RS-232
Data Log	2000 Values Time/Date Stamped, 24 Calibration Spectra
Auto Zeroing	YES (Std)
Auto Cleaning	YES (Std)
External Pump	YES (Std) for zeroing/cleaning only
Sample Conditioning	NONE
Number of Sample Lines	1 (Std), 2 max. (Opt)

PERFORMANCE SPECIFICATIONS

Reading Interval	2 - 9999 minutes
Response Time	Immediate
Range	Parameter/Site Dependent (See Table 1)
Accuracy	Parameter/Site Dependent Typ. 2% to 5% of Range
Precision	Parameter/Site Dependent Typ. 2% of Range
Zero Drift	Parameter Dependent Max. ± 0.005 AU per week with Auto Zero

SAMPLE PARAMETERS

Sample Pressure	5 to 36 psi (Std), 0-5 psi (Opt) w/peristaltic pump (max. lift 10 ft., max. run 50 ft.)
Sample Flow	0.5 to 5 l/min. (1.5 l flush/sampling)
Filtration Requirement	NONE (For Samples Meeting Turbidity and Solids Requirements)
Strainer Requirement	Mesh Opening of 2.0 mm Max.
Sample Temperature	0° - 100°C
Sample Turbidity	0 - 60 NTU (Std)
Sample Suspended Solids	0 - 150 mg/l TSS

MAINTENANCE

Light Source Replacement	Every 5 years
Internal Battery Replacement	Every 5 years

INSTRUMENT SPECIFICATIONS

Size	40 x 20 x 10 in.
Weight	130 lbs.
Mounting	Wall (Std) or Stand (Opt)
Finish Coating	Baked Enamel on Steel (Std) or Stainless Steel (Opt)
Safety Approvals	CSA, UL equivalence
Power	120/240 VAC $\pm 10\%$, 50-60 Hz, 10 Amps max. (Not incl. pump)
Power Connection	Hard Wired (Std)
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	316 SS (Std) or polymer (Opt)
Sample Connection	¼" FNPT Fitting
Waste Connection	¼" FNPT Fitting

OPERATING ENVIRONMENT

Enclosure Ratings	NEMA 4 (Main Enclosure) NEMA 3R (Optrode Enclosure)
Ambient Temperature	5° - 35°C (Std)
Relative Humidity	0 - 100%

Table 1 UV-3100 Primary Absorbance Parameters	
Nitrate, Low Range	0.1 to 10.0 mg/l as NO ₃ -N
Nitrate, High Range	10.0 to 100.0 mg/l as NO ₃ -N
NO _x , Low Range	0.1 to 10.0 mg/l as N
NO _x , High Range	10.0 to 100.0 mg/l as N
Iron III	0.5 to 20.0 mg/l
Copper	1.0 to 20.0 mg/l
Molybdenum	0.5 to 20.0 mg/l
Chromium VI	0.5 to 20.0 mg/l
Organics (NOM)	0.2 to 20.0 mg/l as TOC or COD equivalent
% Transmittance	5.0 to 100.0%
UV-254 Absorbance	0.01 to 2.0 Absorbance Units

Notes:

1. Technical Specifications are subject to change without prior notice.
2. Parameter range is site dependent and is based on a standard 13mm path length and a potable water matrix.