

ChemScan® UV-4100 Series
TECHNICAL SPECIFICATION

FUNCTIONS AND OUTPUTS

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|------------------------|--|
| 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 | 4 max. |
| Parameter Options | Primary or Secondary Absorbance (See Table 1 or 2) |
| Data Communications | 4 - 20mA (8 outputs max.), RS-232, other formats optional |
| Data Log | 1000 Values Time/Date Stamped, 24 Calibration Spectra |
| Auto Zeroing | YES (Std) |
| Auto Cleaning | YES (Std) |
| Analyzer Pump | YES (Std), Zeroing, Cleaning and Internal Sample Flow Only |
| Sample Conditioning | YES (Opt), Direct Injection |
| Number of Sample Lines | 1 to 2 thru Internal Manifold |

PERFORMANCE SPECIFICATIONS

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|------------------|--|
| Reading Interval | 3 - 9999 minutes |
| Response Time | Parameter Dependent (3-5 min. typ.) |
| Range | Parameter/Site Dependent |
| Accuracy | Parameter/Site Dependent Typ. 2% to 5% of Range |
| Precision | Parameter/Site Dependent Typ. 2% of Range |
| Zero Drift | Parameter Dependent Minimized with Auto Zero |

SAMPLE PARAMETERS

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|-------------------------|--|
| Sample Pressure | Pressurized Sample Lines must be regulated to 10 psi maximum, with max. lift 5 ft. and max. run 20 ft. to sample location or line |
| connection | |
| Sample Flow | 0.5 to 5 l/min. (1.5 l flush/sampling) |
| Filtration Requirement | NONE (For samples meeting turbidity and solids requirements), Optional ultrafilter available for high solids or turbidity. |
| Strainer Requirement | Mesh Opening of 2.0 mm Max. |
| Sample Temperature | 1 ^o - 60 ^o C (Std) |
| Sample Turbidity | 0 - 60 NTU (Max) |
| Sample Suspended Solids | 0 - 150 mg/l (Max) |

MAINTENANCE

| | |
|------------------------------|------------------------------|
| Light Source Replacement | Every 5 years |
| Internal Battery Replacement | Every 2 years |
| Zero/Clean Solution Refill | As Required (2-4 weeks typ.) |
| Reagent Refill | As Required (2-4 weeks typ.) |

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) |
| Power | 120 VAC ±10%, 50-60 Hz, 10 Amps max. |
| Power Connection | Hard Wired (Std) or Plug (Opt) |
| Power Condition | Dedicated Branch Circuit Free From: Surges/Dips > 10%, RF and |

| | |
|----------------------|---|
| Operator Interface | Switching Noise |
| Sample Cell Material | 2 x 20 LCD and 4 x 4 Keypad |
| Sample Connection | Polymer Body with Quartz Windows |
| Waste Connection | 1/4" FNPT Fitting |
| | 1/4" FNPT Fitting (Open Drain Required) |

OPERATING ENVIRONMENT

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

| Table 1 UV-4100 Analysis Options (Wastewater) | | | | | | | |
|--|-----------------|-----------------|-----------------|-----------------|----------|--------------|---------|
| Option | NO ₃ | NO ₂ | NH ₃ | PO ₄ | %T or AU | Sample Lines | Outputs |
| 1 | X | X | X | | X | 1 | 4 |
| 2 | X | X | X | X | | 1 | 4 |
| 3 | X | | X | X | X | 1 | 4 |
| 4 | X | X | X | | X | 2 | 8 |
| 5 | X | X | X | X | | 2 | 8 |
| 6 | X | | X | X | X | 2 | 8 |
| 7 | X | | X | | | 1 | 2 |
| 8 | X | | X | | | 2 | 4 |
| 9 | X | X | X | | | 2 | 6 |

| Table 2 UV-4100 Analysis Options (Potable Water) | | | | | | |
|---|----------------------|----------------------|----------------|-----------------------|----------------|----------------|
| Option | Free NH ₃ | Free Cl ₂ | Monochloramine | Total Cl ₂ | Sample Lines | Outputs |
| 10 | X | | | X | 1 | 2 |
| 11 | X | | X | | 1 | 2 |
| 12 | X | | X | X | 1 | 3 |
| 13 | X | | X | | 1 plus 1 | 2 plus 1 |
| 14 | X | X | | | 1 plus 1 | 1 plus 1 |
| 15 | X | | | X | 2 | 4 |
| 16 | X | | X | | 2 | 4 |
| 17 | X | | X | X | 2 | 6 |

Notes:

1. Technical Specifications are subject to change without prior notice.