

MicroDPD™

On-line Colorimeter Chlorine Analyzer

Distributed by ES2 Inc.
877.766.2372 www.ES2inc.net

The MicroDPD analyzer uses proven DPD colorimetric technology for monitoring chlorine in both municipal and industrial applications. The instrument may also be used for controlling a pump or a valve via user selectable alarms or when used in conjunction with a 1450 or 1450 controller to provide residual control. It meets EPA guidelines for direct reporting to state agencies.

The MicroDPD has many superior features over competitive instruments. The 0-10ppm range allows for diverse applications. When above 10 ppm, the display will flash indicating an out of accurate range condition but it will continue to trend up to 20ppm. The measurement signal is forwarded to a monitoring device using either the 4-20 mA output or RS485 Modbus. Cycle time is not fixed – it is user selectable from 110 to 600 seconds offering greater control over testing conditions. The removable sample cuvette is designed to create a vortex which allows for thorough mixing of reagents and thorough purging of waste to eliminate cross contamination. Water and reagent flow through the instrument are microprocessor controlled. The instrument will accept sample water between 5 and 150 psig through a factory set pressure reducing valve. The MicroDPD is shipped fully calibrated with all parameters factory preset. Set up and plumbing are simple – sample tubing is inserted into a ¼" quick connect fitting. Insert reagent bottles and power to the instrument and it is ready to analyze/control your process steam.

Reagents are provided in powder form and have an unprepared 5 year shelf life at ambient conditions. They are easily prepared by just adding water.



This on-line instrument is ideal for accurately monitoring and controlling free and total chlorine residuals up to 10ppm

- Meets EPA requirements for direct reporting
- Measures free or total chlorine
- UL/CSA/CE approved
- 2 user selectable alarms
- User selectable cycle times from 110 sec to 600 sec
- Easy to operate
- Excellent value - Low operating costs



Specifications

Measurement Range	0-10.00 mg/L (PPM)
Accuracy	+5% of reading or +0.03 mg/L (PPM) whichever is greater for the range of 0-6.0 mg/L (PPM) +10% of reading from 6.01-10.00 mg/L (PPM)
Resolution	0.01 mg/L (PPM)
Method	USEPA accepted DPD methodology of analysis for the measurement of Free or Total residual chlorine.
Cycle Time	Adjustable: 110 seconds to 10 minutes (600 seconds) Note: the system defaults to 2.5 minutes
Display	Multi-Line Liquid Crystal Backlit Display
Alarms	Two Programmable for sample concentration, 120-240VAC 2A Form C Relay
Analog Output	Powered 4-20 mA, 600 Ω drive, isolated
Communications Port	Bi-directional RS-485 with Modbus
Water Pressure	Integral pressure regulator 0.34 bar (5.0PSI) to 10.3 bar (150 PSI)
Flow Rate to Waste	200-400 ml/min.
Operating Temperature	5°C-40°C (41°F – 104°F)
Wetted Materials	PVC, Borosilicate Glass, Reslyn (FFKM), Viton® (FKM), Polypropylene, Stainless Steel, Acetal, Nitrile, Noryl®, Nylon
Sample Temperature Range	5°C-40°C (41°F-104°F)
Power Supply	Auto-selectable 100-240 VAC, 47-63 Hz, 150VA
Insulation Rating	Double Insulated, Pollution Degree 2, Overvoltage Category II
Environmental Conditions	Not recommended for outdoor use. Altitude up to 2000 meters Up to 95% RH (non-condensing)
Regulatory Compliance And Certifications	CE Approved, ETL listed to UL 61010-1-2004 & ETL Certified to CSA 22.2 No. 61010.1 2nd edition dated July 2004
Shipping Weight	9 lbs (4.1 kgs) Reagents shipped separately
Shipping Dimensions	406 mm X 406 mm X 229 mm (16"X 16"X 9")
Warranty	1 Year from date of shipment

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Ordering Information

ANALYZER	
Part Number	Description
24996	MicroDPD Chlorine Analyzer, 120-240 VAC, 47-63HZ, 150VA

ACCESSORIES	
Part Number	Description
24997	RS-485 Comms Cable, Shielded, 22 Gauge, 2 Wire Twisted Pair, per ft
24998	PCB Chassis, Replacement
24999	Cuvette, Spare, Flow Through
25000	Check Valve Kit - Includes set of 4 matched check valves
25193	Desiccant Cartridge - Prevents condensation on cuvette
25000	Check Valve Kit, Set of 4 Matched
25001	Replacement Tubing/Cuvette Kit, includes: 2ea, "A" Cap assemblies, 8ea "B" Pump tubes, 1ea. 24437S Cuvette; sold separately
17592-1	Sample Tubing PE 1/4 OD (per foot)
25024	T-Strainer
25002	Zero Calibration Kit, 240VAC, 50HZ
25003	Zero Calibration Kit, 120VAC, 60HZ
R-406	Power Cord, 6 foot, 3-Prong, 120 Vac
25023	Spare Ferrite - Clamp on type
25066	Accessory Kit - Includes T-Strainer, Tubing and Ferrite

CHEMICAL REAGENTS	
Part Number	Description
25004	30 Day Free Chlorine DPD Reagent Kit
25005	30 Day Total Chlorine DPD Reagent Kit
25006	60 Day Free Chlorine DPD Reagent Kit
25007	60 Day Total Chlorine DPD Reagent Kit
25008	12 Month Free Chlorine DPD Reagent Kit
25009	12 Month Total Chlorine DPD Reagent Kit

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