

# Pyxis SP-800 Multi-Parameter Colorimeter

The SP-800 is a multi-wavelength colorimeter specifically designed and suited for Municipal, Environmental and Industrial water analysis. It uses common colorimetric reagents and provides colorimetric measurements at 7 LED wavelengths. The SP-800 is pre-calibrated for colorimetric measurements of analyses common in industrial water treatment and other water testing in the laboratory or field environments, such as Chlorine, Phosphate, Iron, Copper and many others. In multiply side-by-side validation and comparison studies, the SP-800 has proven to be statistically more accurate than other devices on the market.



## Key Features

- Adding user defined methods via uPyxis PC app
- Data log downloadable via uPyxis apps
- Bluetooth enabled
- 7 LED wavelengths and 64 built-in reagent-based methods
- Display a concentration-time profile curve during color development.

## UNIQUE PYXIS TESTS

- Direct Read Bleach Chlorine Concentration (0-16%)
- Direct Read Chlorine Dioxide Concentration (0-50ppm)
- Cyanide Free Zinc Method
- Peracetic Acid (PAA)



## Specifications

Item	Parameters
Colorimeter Wavelength	365, 420, 455, 525, 560, 570, 630 nm
Absorbance Reproducibility	0.005 au (0 - 1.5 au) (3sigma)
Absorbance Linearity Range	0 to 1.0 au
Battery	4 AA alkaline, 3 months typical battery life
Display	Graphical LCD 160x240 pixels, visible under direct sunlight
Instrument Dimension	L 265 mm W 88 mm H 62 mm
Instrument Weight	600 g without batteries
Storage Temperature	0 to 140°F (-18 - 60°C)
Operation Temperature	40 to 106 °F (4 - 41°C)
Humidity	85% at 106 °F (41 °C)
Environmental	IP67, dustproof and waterproof
Regulation	CE

## Major Methods

Hach and other solid/liquid reagents are directly compatible for use with the Pyxis SP-800. Both 10mL and 25mL sample vials are available for use with the Pyxis SP-800. The methods that are unique to the Pyxis SP-800 platform and require Pyxis reagents are highlighted blue below. Please reference the SP-800 method procedure manual for details.

Analyte	Description
<b>Chlorine and Other Oxidizers</b>	
Chlorine	0-2.20 ppm, Free Chlorine DPD
	0-2.20 ppm, Total Chlorine DPD
	0-10.0 ppm, High Range Chlorine DPD
	5-400 ppm, Ultra-High Range Chlorine, Iodometric Method
	0-1.20 ppm, TMB Chlorine
Bleach (NaOCl)	0-16% direct, Reagent-less Bleach Concentration
Chlorine Dioxide	0-5.0 ppm, DPD Method, USEPA accepted for reporting drinking water analysis
	0-50.0 ppm, Direct Method for Chlorine Dioxide
Bromine	0-4.50 ppm, DPD Bromide
PAA	25-500 ppm, Iodometric Method
Chloramine	0-3.0 ppm, Indophenol Method
<b>Inorganic Anions</b>	
Phosphate	0-30.0 ppm, Reactive Phosphate using Molybdovanadate Method
	0-2.50 ppm, Reactive Phosphate using Ascorbic Acid Molybdenum blue method, USEPA accepted for wastewater analysis

Analyte	Description
	0-30.0 ppm, Reactive Phosphate, Amino Acid Reduction Method
Silica	0-1.60 ppm, Low Range Silica, Heteropoly Blue Method
	0-75.0 ppm, High Range Silica, Silicomolybdate Method
Nitrate	0-5.0 ppm, Middle Range Nitrate, Cadmium Reduction Method
	0-30.0 ppm, High Range Nitrate, Cadmium Reduction Method
	0-30.0 ppm, Chromic Acid Method
Nitrite	0-0.350 ppm, Low Range Nitrite, Diazotization Method, USEPA approved for reporting wastewater and drinking water analysis
	0-150 ppm, High Range Nitrite, Ferrous Sulfate Method
Sulfate	0-70.0 ppm, Barium Sulfate Turbidimetric Method
Chloride	0-40 ppm, Low Range Chloride, Turbidimetric Method
	40-400 ppm, Middle Range Chloride, Turbidimetric Method
Fluoride	0-2.00 ppm, SPANDS Method
Cyanide	0-0.20 ppm, Pyridine-Pyrazalone Method
Cyanuric acid	7-55 ppm, Turbidimetric Method
Sulfide	0-0.7 ppm, Methylene Blue Method for Sulfide, USEPA accepted for reporting wastewater analysis
<b>Total Nitrogen, Total Phosphorus and Ammonia</b>	
Total Nitrogen	0-25 ppm, Low Range Total Nitrogen, Persulfate Digestion Method
	10-150 ppm, High Range Total Nitrogen, Persulfate Digestion Method
Total Phosphorus	0-3.50 ppm, Low Range Total Phosphorus, Ascorbic Acid Molybdenum Blue Method with Acid Persulfate digestion
	0-100.0 ppm, High Range Total Phosphorus, Molybdovanadate Method with Acid Persulfate digestion
Ammonia	0-0.50 ppm, Salicylate Method
	0-2.5 ppm, Low Range Ammonia, Salicylate Method
	0-50 ppm, High Range Ammonia, Salicylate Method
<b>Metals</b>	
Iron	0-3.00 ppm, Total Iron using 1,10-Phenanthroline, USEPA approved for reporting wastewater analysis
	0-1.300 ppm, Ferrozine Method
	0-1.80 ppm, Total Iron using the TPTZ Reagent
	0-5.00 ppm, Total Iron using 5-Sulfosalicylic Acid Dihydrate
	0-1.80 ppm, Total Iron Method for water containing Molybdate
Copper	0-5.0 ppm, Bicinchoninate, EPA approved for reporting wastewater analysis
	0-0.20 ppm, Porphyrin method
Zinc	0-3.0 ppm, Zincon Method for Zinc, USEPA approved for wastewater analysis
	0-3.0 ppm, Pyxis Cyanide Free Reagent for Zinc

Analyte	Description
Hardness	0-4.00 ppm, Calmagite Method for Calcium
	25-500 ppm, High Range Murexide Method for Calcium
	0-4.00 ppm, Calmagite Method for Magnesium
Aluminum	0-0.80 ppm, Aluminon Method
Nickel	0-1.000 ppm, PAN method
Chromium	0-0.60 ppm, 1,5-Diphenylcarbohydrazide Method for Chromium Hexavalent, USEPA accepted for wastewater analyses
	0-0.60 ppm, Alkaline Hypobromite Oxidation Method for Chromium Total
Manganese	0-0.70 ppm, Low Range Manganese, PAN Method
	0-20.0 ppm, High Range Manganese, Periodate Oxidation Method
Molybdate	0-3.0 ppm, Low Range Molybdate using Ternary Complex Method
	0-40.0 ppm, High Range Molybdate, Mercaptoacetic Acid Method
Antimony	0-0.100 ppm, 5-Br-PADAP Method
<b>Others</b>	
pH	6.5-9.5, Phenol Red Method
Alkalinity	0-100 ppm, Low Range Bromophenol Blue Method
	100-500 ppm, High Range Bromophenol Blue Method
COD	0-150 ppm, Low Range COD
	0-1500 ppm, High Range COD
Phosphonate	0-7.1 ppm as PBTC UV digestion and Molybdenum Blue Method
DEHA	0-0.50 ppm, Method for N, N-diethylhydroxylamine and other oxygen scavengers
Azoles	0-16.0 ppm, UV digestion for Tolytriazole and Benzotriazole
Polymer	0-13.0 ppm as PAA Hyamine Turbidimetric for Anionic Polymers
Hydrazine	0-0.5 ppm, P-Dimethylaminobenzaldehyde Method for Hydrazine
Color	0-500 units Platinum-Cobalt Standard Method
Urea	0-5.0 ppm, Antipyrine Method

## Order Information

Model: SP-800 Colorimeter

P/N: 50610

Model: 10 ml Sample Vial

P/N: MA-024

Model: 25 ml Sample Vial

P/N:MA-025

## Related Products

Model: SP-710 Water Multimeter

P/N: 50352

Model: SP-400 Dual Meter

P/N: 50201

Model: SP-910 Fluorometer/Colorimeter/Turbidity meter

P/N: 50603