



# DR/800

Series Colorimeters

High-Value, High-Capability Instruments  
for Water Quality Analysis



# DR/800

## Series Colorimeters

Ergonomically designed instrument fits comfortably in the palm of your hand, with all functions easily accessible.



Large LCD display prompts user step by step through procedures. Separate areas of the display indicate procedure number, sample number, parameter, test results, units of measure, and other data.



Instrument cap slides off and is used as a light shield during measurement.

All instrument setup and operation functions are accessible by the keypad. Following prompts provided on the instrument display, the user selects the appropriate program, zeroes the instrument, reacts the sample, and reads the results.

Up to 99 individual readings can be stored and recalled with the touch of a button.

Built-in timer is preprogrammed for methods requiring a fixed reaction time and can be set by the user.

| Parameter   | Range*        | No. of Tests | Cat. No.              | DR/820 | DR/850 | DR/890 |
|---|---------------|--------------|-----------------------|--------|--------|--------|
| Nitrate, Cadmium Reduction, MR (AccuVac <sup>®</sup> )                        | 0 - 5.0       | 25           | 25110-25              |        |        | •      |
| Nitrate, Cadmium Reduction, LR  | 0 - 0.50      | 100          | 24298-45              | •      | •      | •      |
| Nitrate, Chromotropic Acid, HR, TNT   | 0 - 30        | 50           | 26053-45              |        |        | •      |
| Nitrite, HR   | 0 - 150       | 100          | 21075-69              |        |        | •      |
| Nitrite, LR (USEPA)   | 0 - 0.35      | 100          | 21071-69              | •      | •      | •      |
| Nitrite, LR (AccuVac <sup>®</sup> ) (USEPA)                                   | 0 - 0.35      | 25           | 25120-25              | •      | •      | •      |
| Nitrite, TNT  | 0 - 0.50      | 50           | 26083-45              | •      | •      | •      |
| Nitrogen, Ammonia, Salicylate   | 0 - 0.50      | 100          | 26680-00              |        | •      | •      |
| Nitrogen, Ammonia, LR, TNT  | 0 - 2.50      | 50           | 26045-45              |        | •      | •      |
| Nitrogen, Ammonia, HR, TNT  | 0 - 50        | 50           | 26069-45              |        | •      | •      |
| Nitrogen, Monochloramine and Free Ammonia, Salicylate                         | 0 - 0.50      | 50           | 26184-00              |        | •      | •      |
| Nitrogen, Monochloramine and Free Ammonia, Salicylate (AccuVac <sup>®</sup> ) | 0 - 0.50      | 25           | 25210-98              |        | •      | •      |
| Nitrogen, TKN with Nessler finish**   | 0 - 150       | 100          | 24953-00              |        |        | •      |
| Nitrogen, Total, Persulfate Digestion, TNT                                    | 0 - 25        | 50           | 26722-45 <sup>†</sup> |        |        | •      |
| Nitrogen, Total, HR, TNT  | 0 - 150       | 50           | 27141-00 <sup>†</sup> |        |        | •      |
| Nitrogen, Total Inorganic, TNT  | 0 - 25        | 50           | 26049-45              |        | •      | •      |
| Oxygen, Dissolved, HR (AccuVac <sup>®</sup> )                                 | 0 - 15        | 25           | 25150-25              | •      | •      | •      |
| Oxygen, Dissolved, LR (AccuVac <sup>®</sup> )                                 | 0 - 1000 µg/L | 25           | 25010-25              |        | •      | •      |
| Oxygen Demand, Chemical, LR (USEPA)   | 0 - 150       | 25           | 21258-25 <sup>†</sup> |        |        | •      |
| Oxygen Demand, Chemical, HR (USEPA)   | 0 - 1500      | 25           | 21259-25 <sup>†</sup> |        | •      | •      |
| Oxygen Demand, Chemical, HR   | 0 - 15,000    | 25           | 24159-25 <sup>†</sup> |        | •      | •      |
| Oxygen Demand, Chemical, Manganese III  | 20 - 1000     | 25           | 26234-25 <sup>†</sup> | •      | •      | •      |
| Ozone, LR (AccuVac <sup>®</sup> )   | 0 - 0.25      | 25           | 25160-25              |        | •      | •      |
| Ozone, MR (AccuVac <sup>®</sup> )   | 0 - 0.75      | 25           | 25170-25              |        | •      | •      |
| Ozone, HR (AccuVac <sup>®</sup> )   | 0 - 1.5       | 25           | 25180-25              |        | •      | •      |
| pH  | 6.5 - 8.5 pH  | 50           | 26575-12              | •      | •      | •      |
| Phosphate, UniCell™ ***   | 1.5 - 15      | 23           | HCT 121 <sup>†</sup>  |        |        | •      |
| Phosphate, UniCell™ ***   | 6 - 60        | 23           | HCT 122 <sup>†</sup>  |        |        | •      |
| Phosphonates  | 0 - 125       | 100          | 24297-00              |        | •      | •      |
| Phosphorus, Molybdovanadate   | 0 - 45        | 100          | 20760-32              |        |        | •      |
| Phosphorus, Molybdovanadate (AccuVac <sup>®</sup> )                           | 0 - 45        | 25           | 25250-25              |        |        | •      |
| Phosphorus, PhosVer <sup>®</sup> 3 (USEPA)                                    | 0 - 2.5       | 100          | 21060-69              |        | •      | •      |
| Phosphorus, PhosVer <sup>®</sup> 3 (AccuVac <sup>®</sup> ) (USEPA)            | 0 - 2.5       | 25           | 25080-25              |        | •      | •      |
| Phosphorus, PhosVer <sup>®</sup> 3, TNT (USEPA)                               | 0 - 5.0       | 50           | 27425-45              |        | •      | •      |
| Phosphorus, Total, PhosVer <sup>®</sup> 3, TNT (USEPA)                        | 0 - 3.5       | 50           | 27426-45 <sup>†</sup> |        | •      | •      |
| Phosphorus, Acid Hydrolyzable, PhosVer <sup>®</sup> 3, TNT                    | 0 - 5.0       | 50           | 27427-45 <sup>†</sup> |        | •      | •      |
| Phosphorus, Amino Acid  | 0 - 30        | 100          | 22441-00              | •      | •      | •      |
| Silica, UHR   | 0 - 200       | 100          | 22443-00              |        |        | •      |
| Silica, HR  | 0 - 75.0      | 100          | 24296-00              |        |        | •      |
| Silica, LR  | 0 - 1.6       | 100          | 24593-00              |        |        | •      |
| Sulfate (USEPA)   | 0 - 70        | 100          | 21067-69              | •      | •      | •      |
| Sulfate (AccuVac <sup>®</sup> ) (USEPA)                                       | 0 - 70        | 25           | 25090-25              | •      | •      | •      |
| Sulfate, UniCell™ ***   | 40 - 150      | 23           | HCT 125               |        |        | •      |
| Sulfate, UniCell™ ***   | 150 - 900     | 23           | HCT 126               |        |        | •      |
| Sulfide (USEPA)   | 0 - 0.7       | 100          | 22445-00              |        | •      | •      |
| Suspended Solids  | 0 - 750       | —            | —                     |        | •      | •      |
| Tannin and Lignin   | 0 - 9.0       | 100          | 22446-00              |        | •      | •      |
| Total Organic Carbon, HR  | 100 - 700     | 50           | 27604-45 <sup>†</sup> |        | •      | •      |
| Total Organic Carbon, MR  | 15 - 150      | 50           | 28159-45 <sup>†</sup> |        | •      | •      |
| Total Organic Carbon, LR  | 0 - 20.0      | 50           | 27603-45 <sup>†</sup> |        | •      | •      |
| ToxTrak <sup>™</sup> Toxicity   | % inhibition  | 100          | 25972-00              |        | •      | •      |
| Triazole  | 0 - 15        | 100          | 21412-99              |        |        | •      |
| Turbidity   | 1 - 1000 FAU  | —            | —                     |        |        | •      |
| Volatile Acids  | 0 - 2800      | 90           | 22447-00              | •      | •      | •      |
| Zinc (USEPA)**  | 0 - 3.0       | 100          | 24293-00              |        | •      | •      |

\*mg/L unless noted otherwise.

\*\*Requires digestion.

\*\*\*Requires distillation.

HR: High Range MR: Mid Range LR: Low Range UHR: Ultra High Range

USEPA: USEPA accepted or approved AV: AccuVac TNT: Test 'N Tube™

<sup>†</sup>Vial test requires digestion; order COD Reactor or the DRB 100 Reactor separately.

<sup>††</sup>UniCell™ metals tests require use of the Metal Prep Set HCT 200 and digestion with DRB 100 Reactor or COD Reactor, all ordered separately, for "total" metal reading.

<sup>†††</sup>User-installed method.

## Instrument Specifications

**Wavelength Selection:** Auto Select

**Photometric Range:** 0 to 2 A

**Operational Modes:** Concentration, ABS, %T

**Concentration Units:** µg/L, mg/L, g/L, ABS, %T

**External Outputs:** Data Transfer Adapter (optional), IR to RS-232

**Datalogging:** 50 sample readings (each reading includes date/time, parameter, program number, concentration, absorbance, % transmittance, sample number, instrument serial number)

**User Programs:** 10 user-entered programs, 12 data points each

**Display:** Large liquid-crystal display (LCD) shows results, parameter name, and units

**Dimensions:** 23.6 x 8.7 x 4.7 cm (9.3 x 3.4 x 1.9")

**Weight:** 470 g (1 lb)

**Power:** 4 AA alkaline or rechargeable alkaline batteries, nominal life of six months

**Storage Temperature Range:** -40 to 60°C (-40 to 140°F)

**Operating Temperature Range:** 0 to 50°C (32 to 120°F)

**Environmental:** Meets IP67 standard, dustproof and waterproof to one meter for 30 minutes

**Compliance:** European CE Mark

## How To Order

Each DR/800 Series Colorimeter includes two sample cells marked at 10, 20 and 25 mL, 16-mm COD/TNT/UniCell™ adapter, batteries and illustrated instrument and procedure manuals. 📁

48440-00 DR/820 Colorimeter

48450-00 DR/850 Colorimeter

48470-00 DR/890 Colorimeter



Optional carrying cases provide ample room for the instrument, accessories, manual, and additional reagent sets.

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## Optional Instrumentation

51700-10 sensION™1 Portable pH Meter with Platinum Series pH Electrode

51800-10 sensION™5 Conductivity Meter with Electrode and 1 m (40") Cable

54650-15 sensION™156 Meter. A combination, portable meter available in different configurations combining pH, conductivity, and dissolved oxygen capability with different types of probes. Ask your sales representative for model details.

54750-15 sensION™378 Meter. A combination, laboratory meter available in different configurations combining pH, conductivity, and dissolved oxygen capability with different types of probes. Ask your sales representative for model details.

45600-00 COD Reactor for efficient digestion of up to 25 COD/TNT/UniCell™ vials

DRB 100 Compact digital reactor accommodating up to 16 COD/TNT/UniCell™ vials

46500-00 2100 Portable Turbidimeter Kit

52600-00 Pocket Turbidimeter™ Analysis System

16900-01 Digital Titrator

Request Lit. No. 4360 for more e-chem products.

## Accessories

48490-00 Data Transfer Adapter, IR to RS-232, with cable

27639-00 DR/Check™ Absorbance Standards for DR/800 verification

49425-00 Instrument carrying case (hard sided)

27220-00 Instrument carrying case with shoulder strap (soft sided)

49430-00 CEL Portable Laboratory carrying case. Roomy field case includes space for the colorimeter, optional instrumentation, accessories, reagent sets and apparatus.

49665-00 HachLink™ Software Package

19380-04 Alkaline batteries size AA, pk/4

49427-00 Rechargeable Alkaline Batteries (Rayovac® Renew) size AA, pk/4

49428-00 Recharging Unit for Rayovac Renew Batteries



Data Transfer Adapter converts infrared signals from the instrument to standard RS-232 protocol. The adapter fits over the instrument in place of the cap and connects directly to a printer or computer.