



HI96748 • HI96709 Manganese Portable Photometers

- **CAL Check™**
 - Enables users to check validity of calibration
- **BEPS**
 - Alerts the user of low battery power that could adversely affect reading
- **GLP Features**
 - Meets Good Laboratory Practices

Manganese is one of the most common metals present in nature and is used in many industrial applications, for example, the production of fertilizers and in the pharmaceutical industry.

Manganese salts are also used in iron alloys (steel manufacturing) and non-iron alloys as it improves their corrosion resistance and hardness.

The HI96748 measures the low range manganese content in water and wastewater in the 0 to 300 µg/L (ppb) range.

The HI96709 measures the high range manganese content in water and wastewater in the 0.0 to 20.0 mg/L (ppm) range.

Both meters use an exclusive positive-locking system to ensure that the cuvette is in the same position every time it is placed into the measurement cell. It is designed to fit a cuvette with a larger neck, making it easier to add both sample and reagents. The cuvette is made from special optical glass to obtain the best results.

For the HI96748, the reaction between manganese and reagent causes an orange tint. For the HI96709, the reaction between manganese and the reagent causes a violet tint in the sample.

| Specifications | HI96748 Manganese, LR | HI96709 Manganese, HR |
|-------------------------------|---|---|
| Range | 0 to 300 µg/L (ppb) | 0.0 to 20.0 mg/L (ppm) |
| Resolution | 1 µg/L | 0.1 mg/L |
| Accuracy @ 25°C (77°F) | ±10 µg/L ±3% of reading | ±0.2 mg/L ±3% of reading |
| Light Source | tungsten lamp | |
| Light Detector | silicon photocell with narrow band interference filter @ 525 nm | |
| Power Supply | 9V battery | |
| Auto-off | after ten minutes of non-use in measurement mode; after one hour of non-use in calibration mode; with last reading reminder | |
| Environment | 0 to 50°C (32 to 122°F); RH max 95% non-condensing | |
| Dimensions | 193 x 104 x 69 mm (7.6 x 4.1 x 2.7") | |
| Weight | 360 g (12.7 oz.) | |
| Method | adaptation of the 1-(2-pyridylazo)-2-naphthol PAN method | adaptation of Standard Methods for the Examination of Water and Wastewater, 18th edition, Periodate method |
| Ordering Information | <p>HI96748 and HI96709 is supplied with sample cuvettes (2) with caps, 9V battery, instrument quality certificate and instruction manual. CAL Check™ standards and testing reagents sold separately</p> <p>HI96748C and HI96709C includes photometer, CAL Check™ standards, sample cuvettes (2) with caps, 9V battery, scissors, cuvette wiping cloth, instrument quality certificate, instruction manual and rigid carrying case. Reagents sold separately</p> | |
| Reagents and Standards | HI96748 | <p>HI96748-11 CAL Check™ standard cuvettes</p> <p>HI93748-01 liquid reagents for 50 tests</p> <p>HI93748-03 liquid reagents for 150 tests</p> |
| | HI96709 | <p>HI96709-11 CAL Check™ standard cuvettes</p> <p>HI93709-01 liquid reagents for 100 tests</p> <p>HI93709-03 liquid reagents for 300 tests</p> |

Standard reagents begin on page 10.70; CAL Check™ standard reagents begin on page 10.71