

# Multi-ranging Conductivity, TDS, NaCl, Temperature Meter

with 4-ring Potentiometric Conductivity Probe with Platinum Sensors

**MS 3411** 



#### **Features**

- Auto-ranging
- 4-ring potentiometric conductivity probe with internal temperature sensor
- Automatic (ATC), Manual (MTC) or No Temperature Compensation (NoTC)
- Good Laboratory Practice
- PC compatible



### **Overview**

MS 3411 measures Conductivity, TDS, NaCl and temperature. In extended conductivity and TDS ranges (up to 500 mS/cm and 400 g/L respectively) the instrument automatically chooses the best scale.

This instrument utilizes a 4-ring potentiometric probe with platinum sensors that offers greater versatility over typical amperometric designs. By utilizing the 4-ring method, it is possible to measure very low or high conductivity levels without changing probes.

Calibration is automatic at 1 point with 6 memorized buffers.

The meter has 3 options for temperature compensation: ATC between 0 to 60.0°C, MTC and NoTC.

Other features include a read lock function, stability indicator, GLP and PC compatibility via optional MS 03111 software.

## **Specifications**

**Range:** (Conductivity) 0.00 to 29.99  $\mu$ S/cm; 30.0 to 299.9  $\mu$ S/cm; 300 to 2999

uS/cm; 3.00 to 29.99 mS/cm; 30.0 to 200.0 mS/cm; up to

500.0 mS/cm (actual Conductivity)

Range: (TDS) 0.00 to 14.99 mg/L (ppm); 15.0 to 149.9 mg/L (ppm); 150 to 1499

mg/L (ppm); 1.50 to 14.99 g/L (ppt); 15.0 to 100.0 g/L (ppt); up to

400.0 g/L (actual TDS), with 0.80 conversion factor

**Range:** (NaCl) 0.0 to 400.0%

Range: (Temp) -9.9 to 120.0°C

Resolution: (Conductivity) 0.01 µS/cm; 0.1 µS/cm; 1 µS/cm; 0.01 mS/cm; 0.1

mS/cm

**Resolution:** (TDS) 0.01 mg/L; 0.1 mg/L; 1 mg/L; 0.01 g/L; 0.1 g/L

Resolution: (NaCl) 0.1%

Resolution: (Temp) 0.1°C



Accuracy: (Conductivity)  $\pm 1\%$  of reading  $\pm$  (0.05  $\mu$ S/cm or 1 digit)

Accuracy: (TDS)  $\pm 1\%$  of reading  $\pm$  (0.03 mg/L or 1 digit)

Accuracy: (NaCl) ±1% of reading

Accuracy: (Temp) ±0.4°C

Calibration: (Conductivity) automatic, 1 point with 6 memorized values (84, 1413,

5000, 12880, 80000, 111800 μS/cm)

Calibration: (NaCl) 1 point, with MS 8148 calibration solution

Calibration: (Temp) 2-point, at 0 and 50°C (32 and 122°F)

**Temperature Compensation:** automatic or manual, 0 to 60°C (32 and 140°F)

Temperature Coefficient: selectable from 0.00 to 6.00%/°C (Conductivity and TDS

only)

TDS Conversion Factor: selectable from 0.40 to 0.80 (default value: 0.50)

**Probe:** (included) MS 87421, 4-ring platinum, internal temperature sensor

Auto-off: after 5 minutes of non-use (can be disabled)

Power Supply: (included) 12 Vdc adapter

**Environment:** 0 to 50°C (32 to 122°F); RH max 95%

Dimensions/Weight: 240 x 182 x 74 mm / 1.1 kg

### **Product Contents**

MS 3411 is supplied with conductivity probe, power adapter and instructions.