

# Royce Portable Suspended Solids Unit

**The Royce Model 711 Portable Suspended Solids/ Interface Level Analyzer is a rugged, waterproof instrument designed for the rigors of remote sampling. The meter provides reliable operation in waste treatment plants, rivers, lakes and other aqueous systems. The meter will read in either grams per liter when in the suspended solids mode or relative density percentage while in the interface level mode of operation.**

The Model 711 stores the calibration values for suspended solids and interface level in two separate nonvolatile memory locations allowing the user to switch between operational modes without having to recalibrate. The net effect is two analyzers in one.

Due to the full utilization of the microprocessor, calibration values are stored so that recalibration is not required on a daily basis. If the sensor is cleaned after use, monthly calibration is usually more than sufficient for proper operation in either mode of calibration.

The Model 711 analyzer utilizes the Model 71 medium range sensor. The Model 71 sensor is a rugged, reliable sensing element that has polymer optical grade lenses. It was designed specifically to meet the rigorous demands that are a requirement for a portable sensor.

## Features

- Two complete analyzers in one package (TSS & Interface Level)
- Microprocessor based
- Automatic ranging
- Simple, insitu calibration
- Electronic self-diagnostics
- Nine volt battery with automatic shutoff
- Waterproof, rugged housing



**MODEL 711 PORTABLE MLSS/ILA SYSTEM**

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## Model 711 Portable System Supplied Standards

- Model 711 rugged Suspended Solids analyzer
- Model 71 rugged SS sensor with 8 meters (P/N 2459760) or 25 feet (P/N 2459761) of cable and waterproof, military connector.
- Cable is scaled in one foot or one meter increments.
- Velcro "grip strap" which can convert to a handy belt holder.
- 9V battery.
- Detailed instruction manual.

## Optional Accessories and Equipment

- Flexible, zippered waterproof nylon carry-bag with webbed nylon handle, separate protective pocket for manual

## Model 711 Portable System Specific Features

- Two analyzers in one package:  
Switch from Solids measurement to Interface level without losing calibration.
- Automatic ranging:  
Goes completely over the operating range of the analyzer with manual adjustment.
- Simple, insitu calibration.

## Model 711 Portable System Specifications

### 711 Analyzer

**Range:**

.01 - 10 grams per liter (10 to 10,000 mg/l)

**Readout Device:**

Harsh environment, 1/2" (12.7mm)  
LCD digital display

**Input Power:**

Standard 9V battery

**Enclosure:**

Waterproof

**Size:**

7" L x 3.2" W x 1.5" D  
178mm L x 81.3mm W x 38mm D

**Weight:**

1.5 pounds (0.68 Kg)

### 71 Sensor

**Type:**

Single Gap, Optical

**Accuracy:**

± 5% of reading or ± 100 mg/l,  
whichever is greater

**Repeatability:**

± 1% of reading or ± 20 mg/l,  
whichever is greater

**Range:**

.01 - 10 g/l

**Operating Limits:**

Temperature, 0 - 65°C Pressure, 0-50 PSIG

**Size:**

4" L x 2" D  
101.6mm x 50.8mm

**Weight:**

1 pound (.45 Kg)

**Construction:**

Polyurethane body  
Optical grade polymer lenses

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