



Model 8410A

## Portasal™ Salinometer

The Portable Solution For Precise Salinity Measurement



**G**uildline 8410A Portasal™ is a truly portable, high precision instrument from the world leader in salinometers. This all new instrument will deliver salinity calculations on-board ship with laboratory level accuracy.

This portable salinometer measures accurate conductivity ratios and displays calculated salinity directly as well as measured parameters.

Oceanographers require reliable shipboard salinometers to augment the sophisticated CTD's now available; the Guildline 8410A is the perfect solution. The enhanced computer interface capability of the 8410A, its ease of set-up and operation: Guildline's reputation for quality will ensure confidence in the integrity of your on-board salinity measurements.

For 20 years the Guildline's 8400A and 8400B AUTOSAL laboratory instruments have enjoyed the reputation of being the finest salinometers available. The measuring technique used in the PORTASAL is identical to that used in the 8400B laboratory salinometer.

The 8410A combines the latest in microprocessor technology with the time-tested measurement principles and reliability of the Guildline Autosal® laboratory salinometer. It is housed in a compact, protected package that is easy to use while providing faster calculations and improved data logging capability.

### 8410A Features

- > *Completely portable yet offers laboratory - level accuracy*
- > *Rugged, compact enclosure*
- > *Requires only 100 ml sample volume*
- > *Easy to set up and operate*
- > *Microprocessor controlled for rapid sample time*
- > *Direct calculation of salinity*
- > *RS232C and IEEE 488 Interfaces*
- > *Expanded temperature range of 15°C to 38°C.*

### ***Rugged reliability, portability and laboratory accuracy... that's the 8410A Portasal™ from Guildline.***

Careful design has ensured that the 8410A PORTASAL™ retains a high level of performance in a convenient package for field or shipboard use. RS232C/SAIL interfaces and IEEE 488 are standard. The 16 character display may be configured through the keypad, or the interface, to display several parameters including conductivity ratio, salinity, temperature and reference values. The display also allows for 16 lines of header information to be entered in from the keyboard.

A completely new design has evolved for the mechanical packaging incorporating requirements specifically requested by users of salinometers. These include a light yet rugged fiberglass case and front panel, quick release hose fittings for the front panel, and a new clamp/release system for holding samples under test.

## 8410A GENERAL SPECIFICATIONS

<b>Measurement Range:</b>	0.004 to 76 mS/cm 0.0001:1.15 Conductivity Ratio
<b>Accuracy:</b>	± 0.003 Equivalent PSU @ same set point temperature as standardization and within -2 °C and +4 °C of ambient.
<b>Resolution:</b>	0.0003mS/cm @ 15 °C and 35 PSU 0.0003 Equivalent PSU
<b>Sample Volume:</b>	Maximum required 100ml (starting from fresh water in the cell), including flushing volume
<b>Water Bath Temperature:</b>	15 °C to 38 °C in steps of 1 °C
<b>Bath Volume</b>	9L (2.3 US gals.)
<b>Temperature Stability:</b>	± 0.001 °C
<b>Dimensions:</b>	52cm high, 45cm wide, 42cm deep (20.5", 17.7", 16.5")
<b>Weight:</b>	Bath empty; 20kg (44 lbs) including front cover
<b>Power Requirements:</b>	90 to 132 VAC 50/60 Hz 200 to 265 VAC 50/60 Hz 200 VA maximum
<b>Temperature Operating:</b>	5 °C to 40 °C
<b>Storage:</b>	-40 °C to 70 °C

The new unit is considerably easier to use than earlier salinometers. The built-in intelligence permits a variety of calculations to be carried out with faster collection of data, and output to an easy to read display. Servicing and inspection are also extremely simple in this new mechanical package.

Salinity calculation algorithm is based on the Practical Salinity Scale 1978.

Guildline Instruments has been careful to use our extensive salinometer experience to provide a product that will be a valuable asset to any oceanographer. It is based on a measuring technique which has been time proven to be accurate and reliable. Just as important is that it comes from a company which is world renowned in the manufacture of state-of-the-art metrology and oceanographic equipment of the highest quality.

## 8410A Ordering Information

8410A	Portasal™
TM8410A	Technical Manual (included) Certificate of Calibration (included) Report of Calibration (extra charge)

### ACCESSORIES:

<b>84101</b>	Conductivity Cell
<b>84102</b>	Maintenance Kit
<b>84104</b>	Thermistor Kit
<b>84105</b>	External Sample Pump

## GUILDLINE IS DISTRIBUTED BY:

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