



# SWIFT SVP

Sound Velocity / Temperature / Pressure  
Salinity / Conductivity / Density



Designed from the outset with the intention of a seamless workflow, the SWIFT profiler provides survey-grade sensor technology coupled with the convenience of Bluetooth connectivity and rechargeable batteries. An integral GPS module, to geo-locate each profile, completes the package. Data can be easily and quickly downloaded and reviewed wirelessly, via Bluetooth, using the SWIFT App on iOS devices and instantly shared, in industry standard SVP formats through email and cloud services. Using the provided USB adapter or cable, Valeport's DataLog x2 software package provides further tools.

In addition to the directly measured sound speed, temperature and pressure observations, Conductivity, Salinity and Density are calculated using Valeport's proprietary algorithm developed from extensive laboratory and field work.

With an operational battery life of up to 5 days and the convenience of charging via USB, SWIFT is intended for coastal, harbour and inland hydrographic survey use and offers the highest quality sound velocity profiles in a compact, robust and portable package.

Optionally, the supplied deployment weight is available to bolt onto the sensor protection cage to help get the SWIFT to depth in fast flowing currents.

### Sensor Specifications

The SWIFT SVP is fitted with Valeport's digital time of flight sound velocity sensor, temperature compensated piezo-resistive pressure transducer and a PRT temperature sensor

| Sound Velocity |                 |
|----------------|-----------------|
| Range:         | 1375 – 1900 m/s |
| Resolution:    | 0.001 m/s       |
| Accuracy:      | ±0.02 m/s       |

| Pressure    |                 |
|-------------|-----------------|
| Range:      | 10 Bar or 20Bar |
| Resolution: | 0.001% FS       |
| Accuracy:   | ±0.05% FS       |

| Temperature |               |
|-------------|---------------|
| Range:      | -5°C to +35°C |
| Resolution: | 0.001°C       |
| Accuracy:   | ±0.01°C       |

### Calculated Accuracies

|               |                         |
|---------------|-------------------------|
| Conductivity: | ±0.05 mS/cm             |
| Salinity:     | ±0.05 PSU               |
| Density:      | ±0.05 kg/m <sup>3</sup> |

### Physical

|               |  |
|---------------|--|
| Materials:    | Titanium<br>Stainless Steel deployment weight  |
| Depth Rating: | 200m   |
| Dimensions:   | Ø78mm x Length 277mm<br>321mm with deployment weight   |
| Weight:       | 2.0kg (in air) / 0.9kg (in water)<br>3.0kg (in air) / 1.8kg (in water)<br>with deployment weight |

### Communications (set up and data offload)

USB Serial  
Bluetooth v4 - low energy

### Memory

2 GB Internal Flash Card Storage

### Electrical

|               |   |
|---------------|---|
| Battery:      | Internal Rechargeable Battery Pack                                  |
| Battery Life: | Up to 5 days of operations  |
| Charging:     | USB<br>typically, 1 hour fast charging will give 12 hours operation |

### Software

iOS App for Bluetooth 4 compatible iPad and iPhone – instrument set up, data offload, display and translation to common SVP formats, Android to follow.

DataLog x2 Windows based PC software, with both USB cable and Bluetooth 4 connectivity, for instrument setup, data extraction, display and translation to common SVP formats.

### Ordering

|            |  |
|------------|--|
| 0660047 XX | SWIFT SVP Profiler -<br>Titanium housing rated to 200m |
|------------|--|

Note: XX pressure transducer range - select from 10 or 20 Bar

Supplied with:

- Deployment weight
- 20m deployment line
- PC Bluetooth adapter
- USB interface and charging cable
- 1.5 A charger
- DataLog x2 software, operating manual
- System transit case