



Quick Start Guide

Welcome to SoundWater Cypress CM™.

This guide shows you how to download the Orcas app and helps you set it up and connect to the Cypress CM Flowmeter to start taking measurements.



This device complies with Part 15 of FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Contains FCC ID: XDULE40-S2, Contains IC: 8456A-LE4S2. CAN ICES-1/NMB-1; CAN ICES-3 (B)/NMB-3(B)

Let's get started

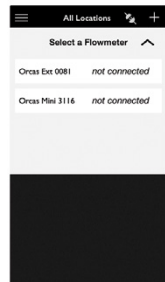
Begin by wiring power—use the wire color codes shown below (for your supplied connecting cable). After your flowmeter is powered, download the SoundWater Orcas app to your Bluetooth enabled iOS™ or Android™ mobile device from the App Store™ or Google Play™.

1 Connecting cable wire color codes:

- For Optional 4-20mA & Pulse**
- 1 Not Used
 - 2 Pulse (NPN type open drain)
 - 3 Power 12-24V DC (1.2W max)
 - 4 Power ground 0V
 - 5 4-20mA Active Output

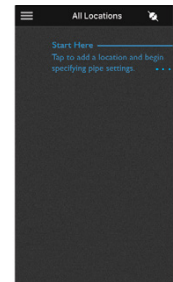
For Optional MODBUS RTU / RS-485

- 1 Not Used
- 2 RS485 Data (+)
- 3 Power 12-24V DC (1.2W max)
- 4 Power ground 0V
- 5 RS485 Data (-)



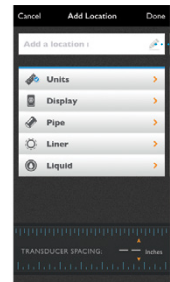
2 Connect your flowmeter.

At launch the app will find any nearby Cypress flowmeters. Select the flowmeter you want to connect to from the list.



3 Add your location.

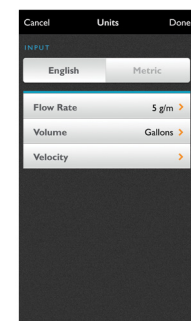
Launching the app lands you on the locations screen. Begin by tapping on the add location (+) button. The app always begins with this screen at launch making it easy to access previously saved location settings.



4 Set up your location.

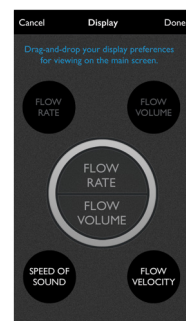
Drill down through the Required parameter selections and choose from the pre-loaded pipe types, pipe dimensions, and fluid databases. Give your location a name, then save. Each location's settings can be stored in the Orcas app, ready for reuse.

Pipe and liquid parameter selection and input screens



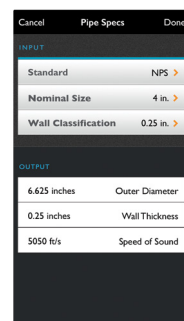
Units

Toggle between metric and Imperial units of measure. Select **Flow Rate**, **Volume**, and **Velocity** from our pre-loaded parameter values or add custom values.



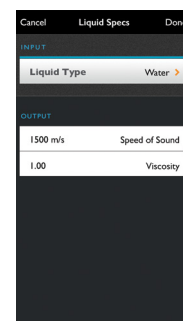
Display

Drag and drop the measurement types that you rely on most to display on the main screen.



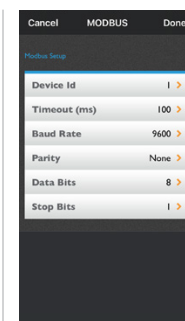
Pipe & Liner

Select **Pipe Type**, **Size** and **Wall Thickness** from our pre-loaded library. If you don't see your exact pipe type, select a similar pipe, size, and wall thickness. Then, at the bottom of the screen, you may manually edit the pipe dimensions to your specific configuration.



Liquid

Select **Liquid Type** and **Temperature** from pre-loaded values.



Outputs

Select the **Outputs** menu to setup any optional hardware outputs such as MODBUS, 4-20 mA, and pulse outputs. The image above displays the MODBUS RTU setup options.

Parameters all set! Now set your transducer spacing.

With your location parameters completely defined the app will now show a transducer spacing at the bottom of the screen. Use this value to set the position of transducers on the Cypress flowmeter.

Tap to access data logging features.

Displays that the app is connected to a flowmeter as well as the meter name.

Your flow information will display once the flowmeter has been installed on a pipe (pipe must be filled with water).

Indicates the strength of ultrasound within the pipe.

Unlock the movable transducer with a slight counter-clockwise turn of the short-wide knob.

Once unlocked, slide the transducer to the indicated measurement on the integrated ruler, and lock in place with a clockwise turn of the short-wide knob.

Transducer spacing



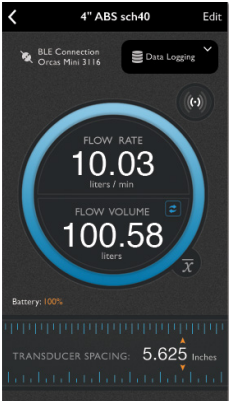
Preparing and mounting the sensor

- 1 Begin by gently rotating and retracting the tall thin silver knobs until they stop.
- 2 Cover the entire bottom face of each transducer with the coupling gel.
- 3 Rest the transducer on the pipe—it self aligns!
- 4 Be sure that the two flowmeter parts are aligned axially with matching color (i.e., black ends on same side, and white ends on same side). BEFORE fully securing the straps, be sure to orient the two flowmeter parts 180 degrees apart. Simply aligning by eye is sufficient—but do your best!
- 5 Rotate the tall thin silver knobs clockwise to press the transducers firmly against the pipe.

Measure flow!

Refer back to the Orcas App to get your flow measurements.

Or, wire the MODBUS RTU output to any PLC/SCADA system to record flow.



Support

Email SoundWater Technologies at support@soundwatertech.com or call **1-509-899-7838** PN 7682 R03