

Cypress™ Ultrasonic Flowmeter

Ultrasonic flowmeters designed for speed and ease.



Cypress is a compact lightweight flowmeter with external power and communications for long-term flow monitoring. The Cypress Flowmeter connects with your mobile device via bluetooth or to the SoundWater Flow Computer. Either way, it works with your SCADA/PLC systems. It's a single piece ultrasonic flowmeter that installs on the outside of your pipe in a snap —and senses flow through the pipe wall.

Whether you're using your mobile device or the Flow Computer, the setup is easy to follow. Quick, simple installation —5 minutes from start to finish.



Fast to install, easy to use.

SoundWater Advantages

MEASUREMENTS YOU CAN TRUST

Our proprietary SoundWater Reciprocity Architecture™ prevents zero-flow drift and eliminates the need for calibration, resulting in long-term measurement stability and accuracy.

INCREASES PRODUCTIVITY

Featuring compact lightweight construction and intuitive apps — our products streamline installation, training, and setup —saving you time and money.

MADE IN USA

Locally owned and operated out of Wenatchee, Washington, our products are built with American quality and ingenuity.

WORKS IN TOUGH APPLICATIONS

Our transducers auto-adjust ultrasonic power output depending upon pipe and fluid conditions —giving you more frequent measurements when things get tough (e.g., corroded pipe or murky fluid).

LONG LIFE / LOW MAINTENANCE

SoundWater products are built to last using the highest quality materials, gasketed & double O-ring seals, and silicone gel to protect electronics.

SERVICE & ACCOUNTABILITY

We establish long-term customer relationships based on trust and service. We will respond to your needs and requests within 24 hours.

Industries



Waterparks, Pools, and Aquariums



Building Commissioning and Maintenance



Agricultural Irrigation



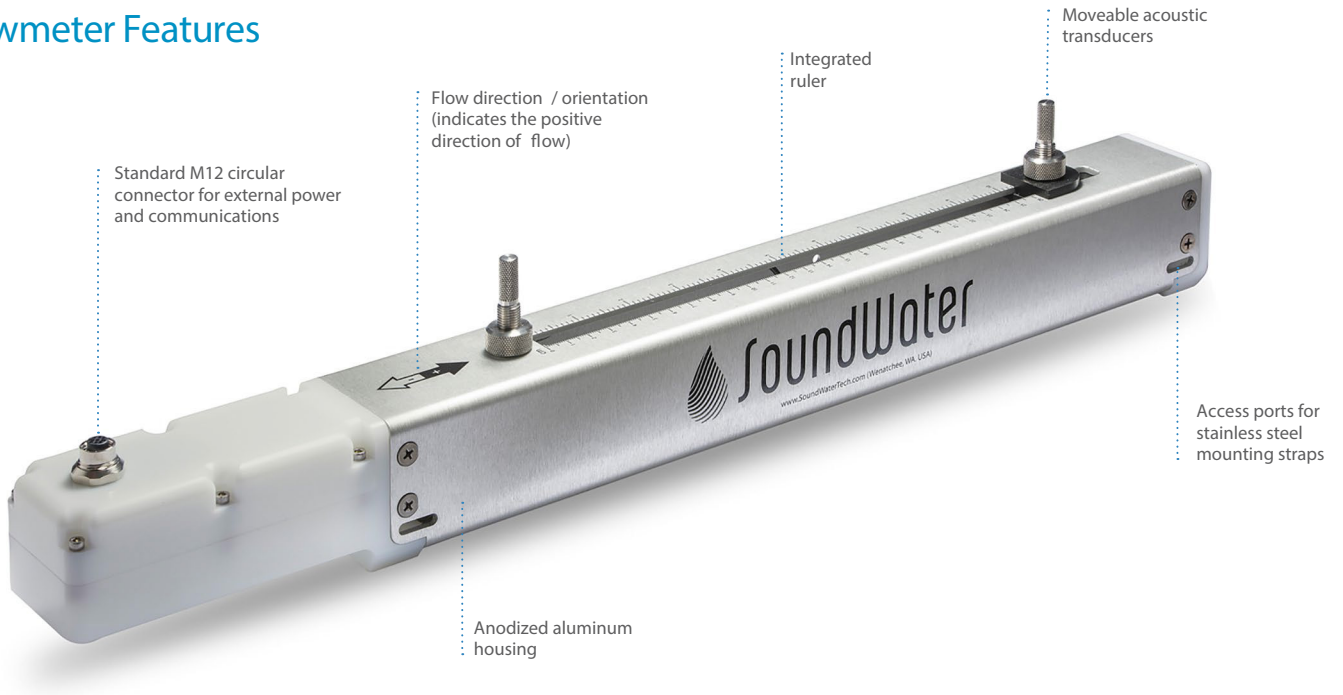
Building Water Management

Advantages & Features

- Long-term flow monitoring
- Connects with your SCADA/PLC
- SoundWater Reciprocity Architecture
- Auto-Adjusting Ultrasonic Power
- Compatible with Mobile Orcas App or SoundWater Flow Computer; intuitive setup and use
- One-piece construction; no assembly
- Gel-free transducers (optional)
- Wireless design



Flowmeter Features



Orcas App Features

Interactive smartphone/tablet control app — iOS or Android.

- Save location information
- Handy built-in pipe specifications —or add your own
- Drag and drop output selection
- English or metric units
- Languages: English, Spanish, Portuguese
- Easy-to-use data logging
- Select liner and liquid types —or define your own



Flow Computer Features

Interactive mounted screen for long-term flow monitoring.

- Connects with one or two flowmeters
- No contact with fluid
- Calculate analytics from two flowmeters
- Standard industrial outputs
- Touchscreen and intuitive app
- Install indoors or outdoors
- May be installed long distances from flow sensor



Dimensions

Cypress Txxx-C5



Cypress Txxx-C11



Cypress Txxx-CM5



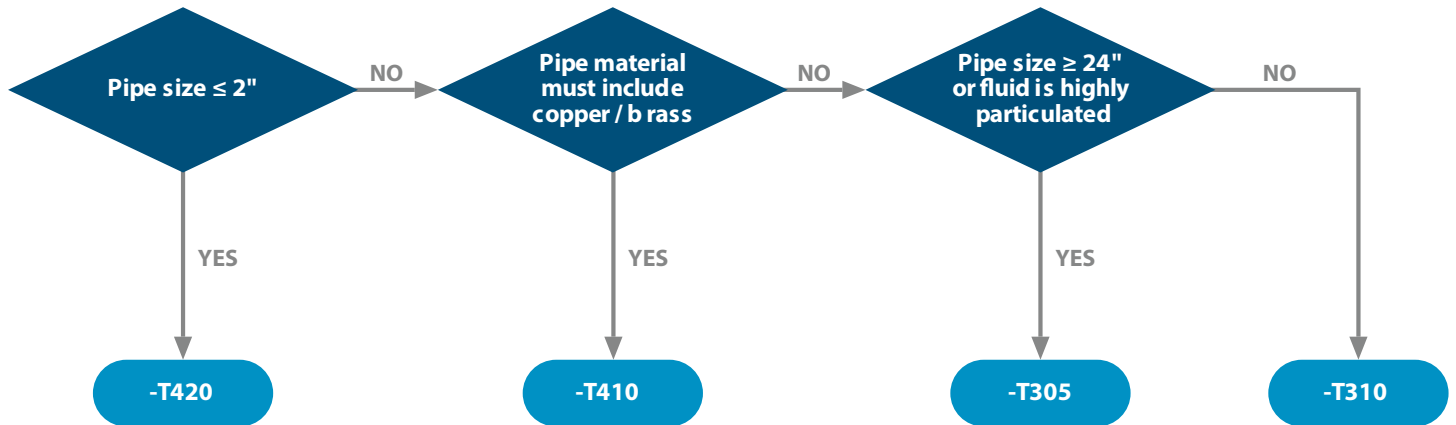
Cypress Txxx-CM11



Direct Mount (Cypress CM) Placement on Pipe



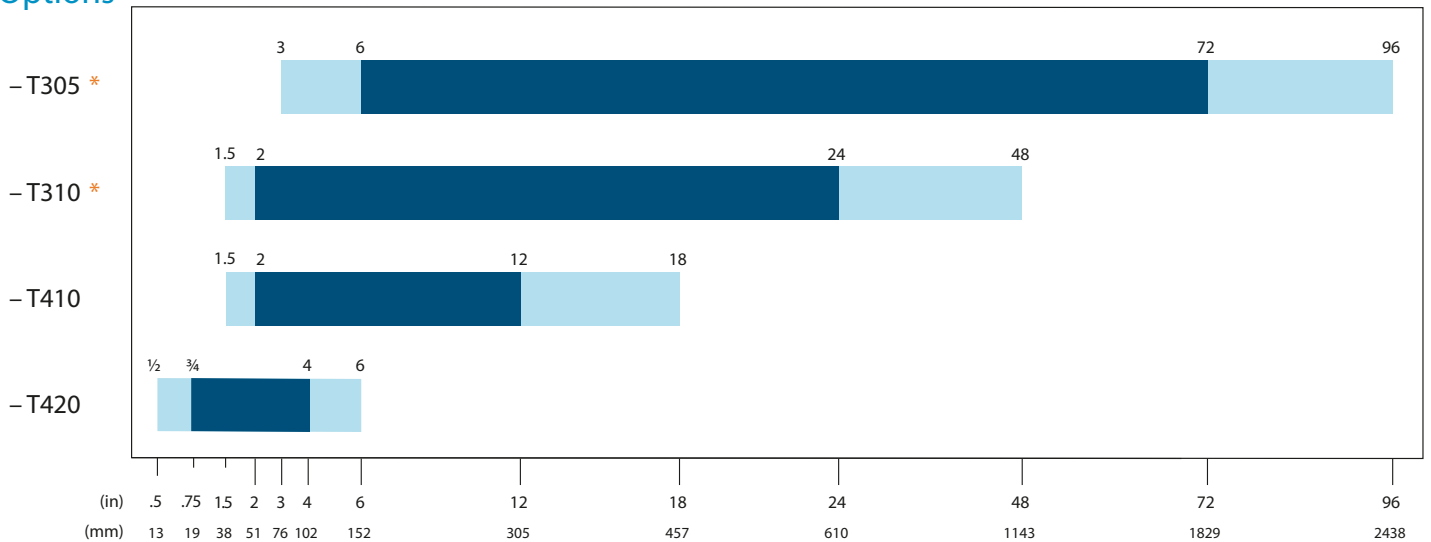
Transducer Selection



Transducer Selection Table

Transducer Options



■ Possible
 ■ Recommended



* Not compatible with copper or brass

Pipe Diameter

Pipe Materials	Metal: Steel, Stainless Steel, Copper, Brass, Aluminum, Ductile Iron Plastic: PVC, CPVC, HDPE, LDPE, PE, PIP, FRP, PEX		
Installation	Installs on pipe from 0.75" to 72" nominal diameter depending on hardware selection 15 pipe diameters upstream, 5 diameters downstream for optimal performance (typical)		
Flow Detection Range	Bi-directional; 0 ft/s to 64 ft/s (0 m/s to 20 m/s)		
Performance	PIPE SIZE RANGE	ACCURACY	REPEATABILITY
	3" to 72"	±1.0% to 2.0% typical	0.5%
	1" to 2"	±2.0% to 3.0% typical	0.5%
	0.75" to 1"	±3.0% to 4.0% typical	0.5%
	*Under standard conditions, assuming fully developed and symmetrical flow profile (typically taken on a straight run of 15 diameters upstream and 5 diameters downstream; flow rate above 3 ft/s or 1m/s; non-aerated liquids). If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.		
Outputs (OPTIONAL)	CURRENT (4-20 mA) Current proportional to flow; user programmable. PULSE NFET (NPN type) open drain output; frequency proportional to flow; user-programmable; Max 39,000 (Hz) MODBUS RTU RS485, user programmable port settings.		
Display	SoundWater Flow Computer (optional; wall mount display) SoundWater Orcas™ App (iOS or Android) connected wirelessly to Cypress with Bluetooth 4.0 (BT LE) Metric and English units; Rate, Total, Velocity, Sound Speed		
Data Logger	Store up to 365 days, 10,000 measurements, 50,000 datapoints		
Security	Six digit password protection restricts unauthorized users from accessing or changing flowmeter setup, data logger, and totalizer		
Software	Save and recall setup information Mobile app for iPhone, iPad, iPod Touch and Android devices LANGUAGES: English, Spanish, Portuguese (app only)		
Hardware	MODEL	PIPE SIZE RANGE	LENGTH PIPE MATERIALS
	Cypress T420-C2	0.75" to 3"	12.0" Steel, Stainless Stl, Plastics, Aluminum, FRP, Copper/Brass
	Cypress T420-CM5	2" to 6"	16.6" Steel, Stainless Stl, Plastics, Aluminum, FRP, Copper/Brass
	Cypress T410-C5	2" to 6"	16.6" Steel, Stainless, Iron, Plastics, Aluminum, FRP, Copper/Brass
	Cypress T410-C11	3" to 14"	22.6" Steel, Stainless Stl, Iron, Plastics, Aluminum, FRP, Copper/Brass
	Cypress T410-CM5	3" to 14"	16.6" Steel, Stainless Stl, Iron, Plastics, Aluminum, FRP, Copper/Brass
	Cypress T310-C5	2" to 8"	16.6" Steel, Iron, Plastics, Aluminum, FRP
	Cypress T310-C11	2" to 18"	22.6" Steel, Iron, Plastics, Aluminum, FRP
	Cypress T310-CM5*	3" to 18"	16.6" Steel, Iron, Plastics, Aluminum, FRP
	Cypress T310-CM11*	3" to 36"	22.6" Steel, Iron, Plastics, Aluminum, FRP
	Cypress T305-CM5*	6" to 18"	16.6" Steel, Iron, Plastics, Aluminum, FRP
	Cypress T305-CM11*	6" to 72"	23-39" Steel, Iron, Plastics, Aluminum, FRP
	*High corrosion, large pipe or tight spaces		
Power	12-24 VDC external power for continuous use; 0.6 W Typical (100 mAmp max current)		
Turndown	200 : 1		
Environmental	Liquid/pipe temperature -40° to 212 F (-40° to 100° C); Ambient temperature -40° to 140° F (-40° to 60° C) IP65 splash-proof and weather resistant		
Materials	BODY: Anodized aluminum channel, PVC electronics housing and footings MOUNTING STRAPS: Stainless Steel FASTENERS: Stainless steel HARDWARE: Stainless steel, acetal, ultem CONNECTOR: M12, nickel plated brass		
Flowmeter Kit	Flowmeter, silicone based coupling gel, mounting straps, power-communication cable		
Manufacture	SoundWater Technologies, Wenatchee WA, USA		
Zero Stability	Reciprocity based hardware for measurement stability and low flow performance.		
Auto-Ranging	Auto-adjusting ultrasonic transducer power, and auto-adjusting transducer receiver gain. Maximizes usable signal and measurement quality.		
Technology	Transit Time Ultrasonic		

Regulatory Certification   

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-LE452, CAN ICES-1/NMB-1; CAN ICES-3 (B)/NMB-3(B)
MODEL: SWT ORCAS-01 