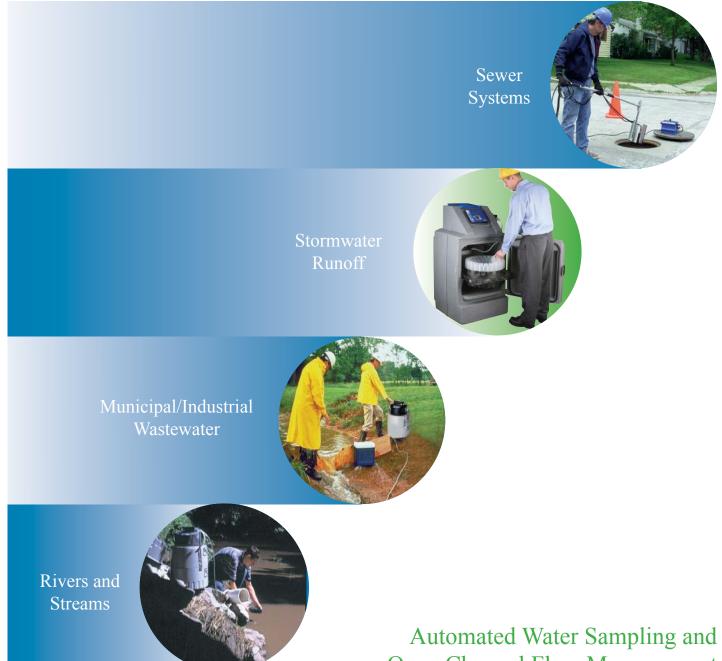
ISCO[®] Environmental **Product Guide**



Open Channel Flow Measurement

Isco Environmental Products

Worldwide Sales and Service

Friendly, knowledgeable help is available from Teledyne Isco in the U.S. and 40 other countries. Phone, Fax, or E-mail us today to arrange for a consultation or demonstration.

Leasing

Contact Isco leasing for competitive rates and fast delivery when instruments are needed for short-term projects.

Special Applications

We can provide creative solutions for almost any need, from consultation to unique hardware adaptations.



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Automated Water Sampling

6712 Portables & Special Function Modules

6712 Sequential/Composite

Intelligent sampling with integrated flow and parameter measurement capabilities.

- SDI-12 interface and 512 KB memory for versatile parameter monitoring and logging
- Accurate, repeatable samples
- High-performance peristaltic pump
- Accepts Isco 700 Series Modules



6712 full-size



700 Series Slide-in Modules

Flow and Parameter modules add versatility.

These environmentally sealed modules for your 6712 and Avalanche samplers are interchangeable in the field. The sampler's memory retains data for convenient retrieval.







Flow/level



Submerged Pressure Probe Flow/level





Bubbler Flow/level



Area Velocity Flow/level

Portable Samplers

3700 Sequential/Composite 3710 Composite

Durable, economical portables for general purpose and priority pollutant applications.

- Accurate, repeatable sample volumes
- Basic programming mode for simple setup
- Extended programming mode with additional features
 - Non-uniform time intervals
 - Multiple samples per bottle
- Multiple bottles per sample



3700 full-size



GLS Composite Sampler

Especially designed for general purpose and priority pollutant applications where a full-size sampler is too large.

- Small and lightweight
- Simplified programming for quick, easy setup
- Two keystroke program recall and one-button program start





Portable Refrigerated Samplers

Glacier[®] Composite

True refrigeration in a portable composite sampler. 12 VDC or 110/220 VAC power.

- Microprocessor controlled refrigeration system
- Two-keystroke program recall
- Download exact sample temperature in a simple, summarized report
- Optional mobility cart with battery carrier and pneumatic tires





Avalanche® Sequential/Composite

Multi-bottle sampling combined with portable refrigeration. 12 VDC or 110/120 VAC power.

- Intelligent sampling with SDI-12 interface and 700 Module input for parameter monitoring and triggering
- High performance peristaltic pump
- Data and sample compartment logging for convenient retrieval
- Optional mobility cart with battery carrier and pneumatic tires





Stationary Refrigerated Samplers

6712FR Sequential/Composite

Intelligent sampling, advanced controls and communication, with a rugged fiberglass exterior.

- Sequential, composite, or flow-proportioned sampling in any environment
- SDI-12 interface and 512 KB memory for versatile parameter monitoring and logging
- Accurate, repeatable samples
- High performance peristaltic pump
- Accepts Isco 700 Special Function Modules

4700 Sequential/Composite

Innovative ideas and materials combined with extreme weather and corrosion resistance.

- For outdoor use at wastewater treatment plants
- Sample temperature logging
- Slide-out bottle rack
- High output system cools samples fast









Open Channel Flow Measurement

2100 Series Modular Flow Systems

2110 Ultrasonic Flow Module

Accurate, non-contact liquid level measurement with built-in flow conversion software.

- Microprocessor-based digital sensor
- Self-tuned power control
- Unique sensor design minimizes "deadband"
- Vertical sensor face avoids condensation problems
- Variable rate data storage



Shown with 2191 Battery Module

2150 Area Velocity System

Advanced area velocity technology in modular form.

- Microprocessor-based low profile sensor
- Span calibration not required
- No temperature drift
- Automatic gain control
- No "draw down" effect
- Variable rate data storage





Optional hardware is available for wall, in-pipe, and floor mounting.

2100 Series modules may be stacked to customize a system for any site.



2100 Series Communication Options

2101 Field Wizard



A weatherproof module for on-site data retrieval.

Rugged NEMA 4X, 6P (IP 68) enclosure. Stores more than 2 weeks' data from up to 20 modules!

2102 Wireless Module

- Gather 2100 Series data while inside your vehicle
- Drive-up convenience and safety

2103 Land-line Modem Module

- Dial-up flow data from your desktop
- Dial-out alarms

2103c Cellular Modem Module

- Gather data with cell phone speed and convenience
- CDMA, 1XRTT

2103G GSM Cellular Modem Module

Remote downloading from Isco 2100 ModulesGSM, GPRS

2105 Interface Module

An advanced interface and communication device.



The 2105 integrates multiple field instruments and provides a common platform for logging and remote communication. Isco 2100 Series flow modules, Isco's pulse Doppler flowmeters, and Isco rain gauges are directly compatable. It can also interface with non-Isco instruments that have SDI-12 or Modbus output. Additional inputs (4-20 mA, etc.) are possible using readily available aftermarket converters.

The 2105 will monitor recorded data and take intelligent action, such as sampler enabling and multiple alarm generation based on user-defined conditions. Features include a built-in cell phone modem and remote or online data access.

2108 Analog Output

- 4-20 mA signals for monitoring and control
- Easy interface with SCADA/ DCS and other secondary systems



Digital RS-232 output

Internet

Real-time data from the field

Flowlink Software

See Flowlink section (Pg. 13)



Intrinsically Safe Area Velocity Flow Systems

2151 Area Velocity System

CSA approved for Class I, Div. 1, Groups C&D environments.



2150 EX Area Velocity System



Baseefa and CSA approved for use in potentially explosive atmospheres.

Velocity Profiling Flow Meters

ADFM[®] Pro 20

For open channels and pipes from 12 to 180 inches (0.3 to 4.5 meters).

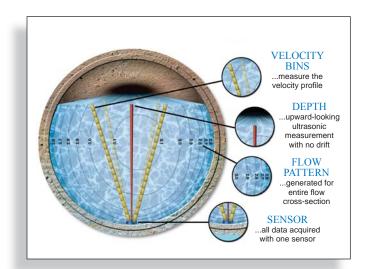
- Pulse-Doppler velocity profiling
- Upward-looking quad-redundant velocity sensors and integrated depth sensor in a single probe
- Real-time data output
- In-situ calibration never required



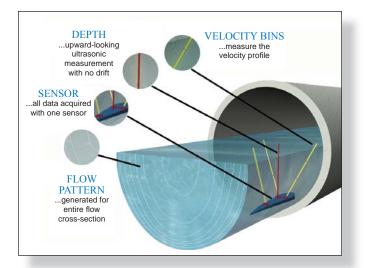
For shallow water and small pipes/channels from 8.0 to 48 inches (0.2 to 1.2 meters). Ideal for high-accuracy applications.

- Upward-looking tri-redundant velocity sensors and integral depth sensor
- NEMA 6P (IP 68) housing
- Optional pressure or ultrasonic depth sensor









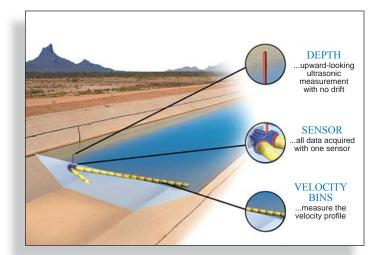
Velocity Profiling Flow Meters

Horizontal ADFM® Flow Meter (H-ADFM)

Velocity profiling measurement for channel widths of 10 feet (3.0 meters) or more.

- Accurate in low velocities and complex flows
- Horizontally-looking redundant velocity sensors
- Upward-looking depth sensor



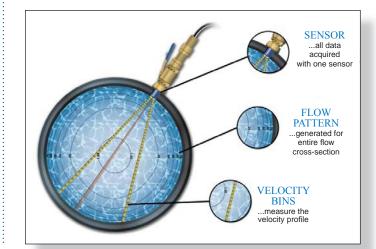


ADFM® Hot Tap Insertion Flow Meter

For velocity profiling in full pipes 18 inches (0.4 m) to 9 feet (2.7 m) diameter. Can be installed while a pipe is still fully pressurized and in service – avoiding operation interruptions.

- Accurate measurement in difficult sites
- Industry-standard two-inch (50 mm) tap





Open Channel Flow Transmitters & Loggers

3010 Flow Transmitter

Dependable flow measurement and data transmission. Proven accurate under the toughest conditions.

- Built-in level-to-flow-rate conversions
- Backlit LCD
- Sampler interface
- Analog, digital, and relay outputs

<complex-block>



4100 Series Flow Loggers

The first choice for flow logging when basic features satisfy your needs. Monitor rainfall, as well as sampler pacing and activation.

- Large, versatile memory
- Rugged, submersible enclosure
- Rain gauge input
- Sampler interface



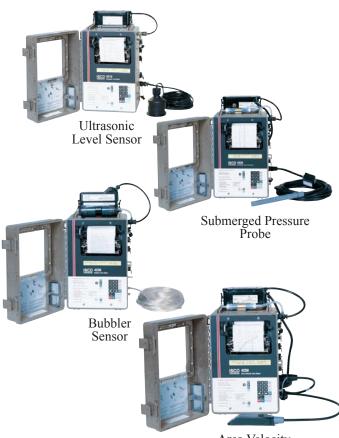


Open Channel Flow Meters

4200 Series Flow Meters

Recognized around the world as the standard of the industry. Connect a rain gauge, sampler, and/or YSI sonde to create an integrated monitoring system.

- Built-in printer, data logger, 4-20 mA alarm signals
- Backlit LCD panel



Area Velocity Probe



Pump Station Monitor

This monitor, along with Isco's exclusive Pumplink software, lets you simultaneously monitor flow and pump performance at lift stations. Allows early detection of abnormal pump activity.

- Installs quickly, with no shut-down
- Never needs calibration
- Uses no level sensors
- Eight analog inputs for logging other parameters



Portable (shown) and hard-wired versions available



Support Products

Rain Gauges

The Isco 674 Rain Gauge connects directly to Isco 6700 Series Samplers, 4200 Flow Meters, and 4100 Flow Loggers to log rainfall along with sampler and flow data.

Our 676 Logging System records rainfall at sites where no sampler or flow meter is deployed.

 Tipping bucket mechanism with jeweled pivot for maximum accuracy



581 Rapid Transfer Device (RTD)

A handy plug-in alternative to using notebook computers in the field.

Retrieve data from these Isco instruments:

- 6700/6712 Samplers and Avalanche
- 4100 Flow Loggers
- 4200 Flow Meters



Isco Power Products

Rugged, reliable batteries and chargers for environmental monitoring applications.

Built to withstand the harshest environments



Open Channel Flow Measurement Handbook

An essential and extensive resource for professionals who deal with open channel flow.

More than 500 pages of comprehensive information, including standard discharge tables for a wide variety of primary devices.

- 6th Edition
- Recently updated and expanded.

Street Level Tools

Minimize or eliminate manhole entry.

Versatile accessories that allow a single worker to quickly and safely insert and remove a variety of sensors in manholes as deep as 5 meters.





Isco Flowlink[®] Software



Flowlink and Flowlink LE

Analyze data, conduct advanced studies, and generate sophisticated reports.

Set up and retrieve data from these Isco instruments:

- 2100 Series Flow Modules
- 4100 Series Flow Loggers
- 4200 Series Flow Meters
- ADFM Pro20 & accQmin Flow Loggers
- 6700/6712 Samplers and Avalanche, with 700 Series Modules and/or SDI-12 devices
- 676 Rain Gauge Logger



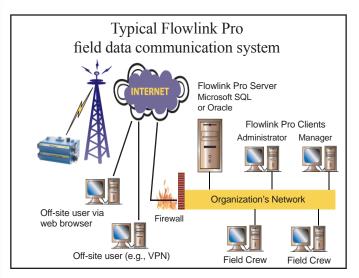




Flowlink Pro

A server/client package for municipalities and service providers.

Facilitates management of multi-site wastewater and flow monitoring networks.



Go online at <u>www.isco.com.</u>

■ FAX the form below to (402) 465-3064.

For more information

- E-mail us at iscoinfo@teledyne.com. Phone toll free from the USA & Canada.
 - For orders or other customer service: (800) 228-4373
 - For technical support or application questions: (866) 298-6174
- From other countries, phone: (402) 464-0231

The following materials are av	ailable at no cost, using any method shown above.	
Samplers		
 Portable Automatic Samplers Portable Refrigerated Samplers 	Name	
□ Special Function Modules	Title	
 Stationary Refrigerated Samplers Hazardous Location Samplers 		
□ Isco Sampler Source Book	Company	
(all Isco samplers and related products)	Address	
Flow Meters	City	
 2100 Series Modular Flow Systems Velocity Profiling Flow Meters 	State/Province ZIP/postal code	
□ 4200 Series Open Channel Flow Meters □ 3010 Flow Transmitter		
□ Flow Meters for Hazardous Locations	Country	
□ 4501 Pump Station Monitor	Phone	
Additional Products	FAX	
Street Level ToolsRain Gauges	E-mail	
 581 Rapid Transfer Device Flowlink Software 	E-mail	
□ Isco Power Products	I would like pricing information	
□ Integrated Water Monitoring		
Other Free Materials	Put me in contact with my Isco representative	
 Isco Stormwater Monitoring Guide Flowlink Program Preview CD 		
□ Isco Power Products Brochure		inq 1810



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