

Isco Avalanche® Multi-bottle, Refrigerated Portable Sampler

Multi-function sampling and data logging with dual-power cooling

Avalanche® is based on Isco's industry-leading 6712 controller. You get all the advanced control, data logging, and communication features of the 6712, with cooling from either AC or battery power.

Bottle options include 5- and 2.5 gallon composites as well as 4 x 1-gallon and 14 x 950 ml sequential.

A 12V deep-cycle battery delivers 48 hours - or more- of refrigeration. The power-saving cooling system remains on standby until the first sample is drawn, and only then switches on to preserve the collected samples for pickup.

Available routines include: pause-and-resume for intermittent-discharge flow monitoring; sampler pacing by time, non-uniform time, flow or external event; and random interval sample collection.

Standard Features

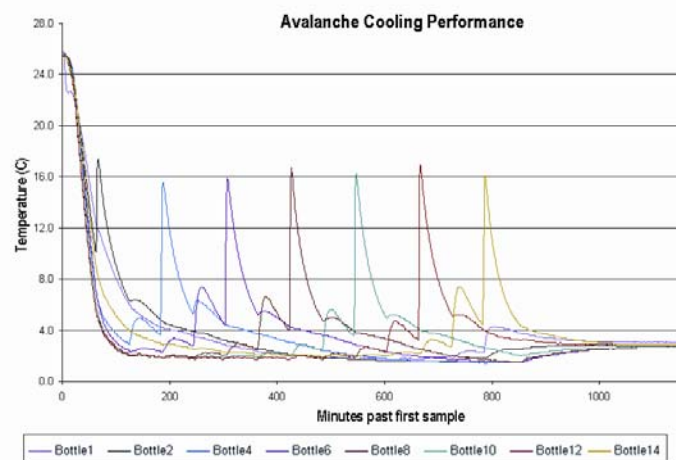
- ◆ Standard and extended programming keeps setup simple when you don't need advanced features.
- ◆ NEMA 4x, 6 (IP67) controller enclosure.
- ◆ SDI-12 interface provides "plug and play" connection with multi-parameter water-quality sondes and other compatible devices.
- ◆ 512kB memory gives you great flexibility for logging environmental data.
- ◆ Sample delivery at the EPA-recommended velocity of 2 ft/sec. at head heights up to 26 feet.
- ◆ Patented pump revolution counter ensures accurate sample volumes - and tells you when tubing should be replaced.



Optional mobility kit includes pneumatic tires for ease of transport over rough terrain, and a convenient battery platform.

Applications

- ◆ Stormwater runoff compliance
- ◆ TMDL and watershed monitoring
- ◆ Enforcement monitoring
- ◆ Advanced sampling combined with data logging and communications for flow, rainfall, and water quality parameters.



Isco temperature control technology accurately preserves samples at 3°C - even under difficult conditions shown above (40°C ambient, 20°C sample temperature).

Specifications

| Isco Avalanche Sampler | |
|--|--|
| Size (H x W x D): | 30.5 x 14 x 24 inches (78 x 36 x 60 cm) |
| Weight: | Dry, less battery - 76 lbs (35 kg) |
| Bottle configurations: | 5-gallon poly bottle 2.5-gallon glass bottle configuration 2.5-gallon poly bottle configuration 1-gallon poly bottle configuration (4 bottles) 950 ml poly bottle configuration (14 bottles) |
| Power Requirements: | 12V DC (Supplied by battery or AC power converter.) |
| Pump | |
| Intake suction tubing: | |
| Length | 3 to 99 feet (1 to 30 m) |
| Material | Vinyl or Teflon |
| Inside dimension | 3/8 inch (1 cm) |
| Pump tubing life: | Typically 1,000,000 pump counts |
| Maximum lift: | 28 feet (8.5 m) |
| Typical Repeatability | ±5 ml or ±5% of the average volume in a set |
| Typical line velocity at Head height: of | |
| 3 ft. (0.9 m) | 3.0 ft./s (0.91 m/s) |
| 10 ft. (3.1 m) | 2.9 ft./s (0.87 m/s) |
| 15 ft. (4.6 m) | 2.7 ft./s (0.83 m/s) |
| Liquid presence detector: | Non-wetted, non-conductive sensor detects when liquid sample reaches the pump to automatically compensate for changes in head heights. |

| Controller | |
|------------------------------|---|
| Weight: | 13 lbs. (5.9 kg) |
| Size (HxWxD) | 10.3 x 12.5 x 10 inches (26 x 31.7 x 25.4 cm) |
| Operational temperature: | 32° to 120°F (0° to 49°C) |
| Enclosure rating: | NEMA 4X, 6 (IP67) |
| Program memory: | Non-volatile ROM |
| Flow meter signal input: | 5 to 15 volt DC pulse or 25 millisecond isolated contact closure. |
| No. of composite samples: | Programmable from 1 to 999 samples. |
| Clock Accuracy: | 1 minute per month, typical, for real time clock |
| Software | |
| Sample frequency: | 1 minute to 99 hours 59 minutes, in 1 minute increments. Non-uniform times in minutes or clock times 1 to 9,999 flow pulses |
| Sampling modes: | Uniform time, non-uniform time, flow, event. (Flow mode is controlled by external flow meter pulses.) |
| Programmable sample volumes: | 10 to 9,990 ml in 1 ml increments |
| Sample retries: | If no sample is detected, up to 3 attempts; user selectable |
| Rinse cycles: | Automatic rinsing of suction line up to 3 rinses for each sample collection |
| Program storage: | 5 sampling programs |
| Sampling Stop/Resume: | Up to 24 real time/date sample stop/resume commands |
| Controller diagnostics: | Tests for RAM, ROM, pump, display, and distributor |

Ordering Information

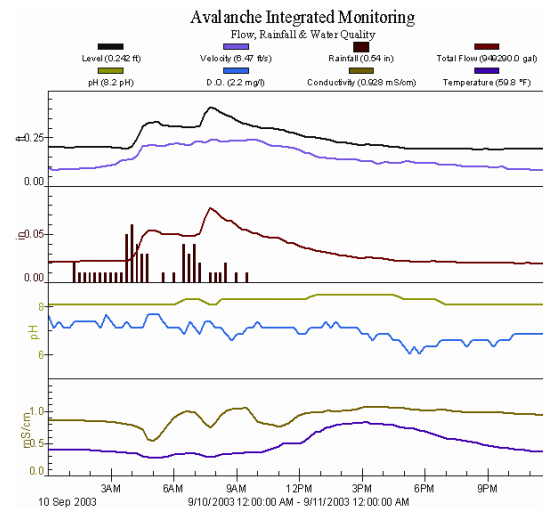
Note: Bottle configuration, suction line, and strainer must be ordered separately. 12 VDC operation requires external battery. Contact Isco or your Isco Representative for complete information.

| Description | Part Number |
|--|-------------|
| Isco Avalanche Sampler (115-230 VAC/12V DC) Includes controller, distributor arm, instruction manual, pocket guide. Standard power cord.* | 68-2970-003 |
| 5-gallon poly bottle | 68-2970-008 |
| 2.5-gallon glass bottle configuration | 68-2970-006 |
| 2.5-gallon poly bottle configuration | 68-2970-009 |
| 1-gallon poly bottle configuration (4 bottles) | 68-2970-002 |
| 950 ml poly bottle configuration (14 bottles) | 68-2970-001 |
| Mobility Kit | 68-2960-004 |



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The Avalanche controller is a powerful SDI-12 data logger, designed to work directly with Isco's advanced Flowlink® Software.

Data for flow, rainfall, and water quality can be transferred from the Avalanche controller into a Flowlink-equipped PC in three ways: via cable connection, via Isco's 2102 Wireless Communication System, or by phone, using Avalanche's optional built-in modem

Flowlink Software lets you quickly retrieve, import, compare, and analyze data, generate charts and graphs, and create comprehensive reports.