

# Avalanche<sup>®</sup>

## Multi-Bottle Portable Refrigerated Sampler

Avalanche is based on Teledyne 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.

### *Advanced sampling and data logging with transportable, dual-power cooling*

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

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.



*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
- Anywhere you need advanced sampling capability combined with data logging and communications for flow, rainfall, and water quality parameters—plus reliable, on-demand cooling

### Standard Features:

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

## Avalanche Sampler

<b>Size (H x W x D):</b>	30.5 x 14 x 24 in (78 x 36 x 60 cm)
<b>Weight:</b>	Dry, less battery—76 lbs (35 kg)
<b>Bottle configurations:</b>	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)
<b>Power Requirements:</b>	12V DC (Supplied by battery or AC power converter.)

## Pump

<b>Intake suction tubing:</b>	
-Length:	3 to 99 ft (1 to 30 m)
-Material:	Vinyl or Teflon
-Inside dimension:	3/8 in (1 cm)
<b>Pump tubing life:</b>	Typically 1,000,000 pump counts
<b>Maximum lift:</b>	28 ft (8.5 m)
<b>Typical Repeatability:</b>	±5 ml or ±5% of the average volume in a set
<b>Typical line velocity at Head height of:</b>	
	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)

<b>Liquid presence detector:</b>	Non-wetted, non-conductive sensor detects when liquid sample reaches the pump to automatically compensate for changes in head heights
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## Controller

<b>Weight:</b>	13 lbs (5.9 kg)
<b>Size (HxWxD):</b>	10.3 x 12.5 x 10 in (26 x 31.7 x 25.4 cm)
<b>Operational temperature:</b>	32 ° to 120 °F (0 ° to 49 °C)
<b>Enclosure rating:</b>	NEMA 4X, 6 (IP67)
<b>Program memory:</b>	Non-volatile ROM
<b>Flow meter signal input:</b>	5 to 15 volt DC pulse or 25 millisecond isolated contact closure
<b>No. of composite samples:</b>	Programmable from 1 to 999 samples
<b>Clock Accuracy:</b>	1 minute per month, typical, for real time clock

## Software

<b>Sample frequency:</b>	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
<b>Sampling modes:</b>	Uniform time, non-uniform time, flow, event. (Flow mode is controlled by external flow meter pulses.)
<b>Programmable sample volumes:</b>	10 to 9,990 ml in 1 ml increments
<b>Sample retries:</b>	If no sample is detected, up to 3 attempts; user selectable
<b>Rinse cycles:</b>	Automatic rinsing of suction line up to 3 rinses for each sample collection
<b>Program storage:</b>	5 sampling programs
<b>Sampling Stop/Resume:</b>	Up to 24 real time/date sample stop/resume commands
<b>Controller diagnostics:</b>	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 Teledyne ISCO or your local Representative for complete information.*

<b>Avalanche Sampler</b> (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

## Teledyne ISCO

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*Teledyne ISCO is continually improving its products and reserves the right to change product specifications, replacement parts, schematics, and instructions without notice.*

