

Glacier[®]

Portable Refrigerated Sampler



The Glacier Sampler combines the small size, light weight, and mobility of a portable sampler with an exclusive new active temperature control system. Its revolutionary design gives you the best of all worlds: easy transport, quick setup, and accurate sample preservation—without reliance on ice or utility power! An optional Mobility Kit with aluminum frame and pneumatic tires lets you wheel Glacier even over rough terrain to remote sampling sites.

Active cooling in a portable sampler!

In the field, Glacier delivers 48 hours or more of refrigeration from a 12 volt deep cycle battery. Its power-saving cooling system can be set to standby until the first sample is drawn. Glacier can wait patiently for days or weeks to collect event-triggered samples, and then preserve them until a convenient pickup time. For even greater versatility, Glacier also plugs into a 120 or 240VAC outlet to run on AC line voltage.

The Glacier controller uses field-proven technology to ensure the reliability, ease of operation, and durability you expect from Teledyne ISCO.

- Recall and run a stored program with two keystrokes.
- NEMA 4x, 6 (IP67) enclosure is watertight and dustproof.
- Actual measured sample temperature is stored by the controller. Minimum, maximum, and average temperature are reported on a LCD screen and in a downloadable file using Samplink software.
- Patented LD90 non-contacting Liquid Presence Detector and pump revolution counting system ensure accurate sample volumes.
- Collect composite samples in 10- or 20- liter bottles, or eliminate bottle washing with ProPak[®] single-use liners.

Glacier's temperature control system continuously measures the actual sample temperature, and precisely regulates cooling to ensure accurate sample preservation.



Our optional mobility kit, with pneumatic tires, carries a 12V battery and lets Glacier roll easily over rough terrain.

Applications:

- Stormwater sampling
- Biomonitoring—where accurate sample preservation is needed
- Influent and effluent sampling—Glacier can be easily moved in-plant to collect monthly or weekly at multiple sampling points. (Not recommended for use in corrosive atmospheres.)
- Anywhere you need sampling mobility plus reliable, ice-free cooling

Standard Features:

- Dependable, easy-to-program controller uses field-proven technology
- Runs on either external 12VDC or 120/240VAC mains power.
- Recall and run a stored program with two keystrokes.
- NEMA 4x, 6 (IP67) controller enclosure is watertight and dustproof.
- Actual measured sample temperature is stored by controller.
- Patented LD90 non-contacting Liquid Presence Detector and pump revolution counting system ensure accurate sample volumes.

Glacier Portable Refrigerated Sampler

Size:	25 x 15 x 24 in (63.5 x 38 x 61 cm)
Weight:	60 lbs (28 kg)
Bottle Types:	One 10-liter PE or Glass One 20-liter PE One 9-liter ProPak composite sample container with disposable liner
Power Requirements:	12 VDC (Supplied by external battery, or AC power converter in dual-power version.)
Cooling:	CFC-free system maintains sample temperature at 37.4 ± 1.8 °F (3.0 ± 1.0 °C) at ambient temperature of 32 to 104 °F (0 to 40 °C).

Pump

Intake Suction Tubing:	
-Length	3 to 99 ft (1 to 30 m)
-Material	Vinyl or PTFE-lined vinyl
-Inside Dimension	3/8 in (9 mm) or 1/4 in (6 mm)
Pump Tubing Life:	Typically 2,000 samples
Maximum Lift:	26 ft (7.9 m)
Typical Repeatability:	±10 ml
Typical Line Velocity:	3 ft (0.9 m) head height: 2.5 ft/s (0.76 m/s) 10 ft (3.1 m) head height: 2.5 ft/s (0.76 m/s) 15 ft (4.6 m) head height: 1.9 ft/s (0.58 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.



There's no other sampler like Glacier. It's easy to use and transport—with a uniquely efficient cooling system.

Controller

Weight:	8 lbs (3.6 kg)
Size: (H x W x D)	10 x 12.5 x 10 in (25.5 x 32 x 25.5 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 for flow-paced sampling.
External Trigger:	Initiates sample collection and cooling from contact closure signal
Number of Samples to Shutoff:	999 samples maximum with 5 gallon (19 liter) bottle.
Clock Accuracy:	1 minute per month, typical, for real-time clock

Software

Sample Frequency Selection:	1 minute to 9,999 minutes, in 1-minute increments. 1 to 9,999 flow pulses
Sampling Modes:	Time or flow, event. (Flow mode is controlled by external flow meter pulses.)
Programmable Sample Volumes:	10 to 9,990 ml, in 1.0 ml increments
Program Storage:	One program running, one stored
Controller Diagnostics:	Tests for RAM, ROM, pump, and display

Ordering Information

Glacier Sampler—with dual power option

(120V/240V AC or 12V DC)	68-2960-001
Glacier Sampler (as above w/European-style power plug)	68-2960-010
Mobility option (handle and pneumatic tires)	68-2960-004
Adapter kit (for 10-liter bottles)	68-2960-005
10-liter glass bottle	68-2960-006
10-liter polyethylene bottle	68-2960-007
20-liter polyethylene bottle	68-2960-008
9-liter ProPak kit (w/holder and 100 disposable liners)	68-2960-009

Note: Bottle configuration, suction line, and strainer must be ordered separately. 12 VDC operation requires suitable external battery. Please contact Teledyne ISCO or your local representative for pricing and additional information as needed.

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.



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