

Glacier® Portable Refrigerated Sampler

Active cooling in a portable sampler!

Isco's Glacier® Sampler combines the small size, light weight, and mobility of a portable with an exclusive 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!

Glacier can be powered by 12V DC or AC line voltage. In the field, Glacier delivers 48 hours or more of refrigeration from a 12 volt deep cycle battery. Its power-saving cooling system stands by 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.

Dependable, easy-to-program controller

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



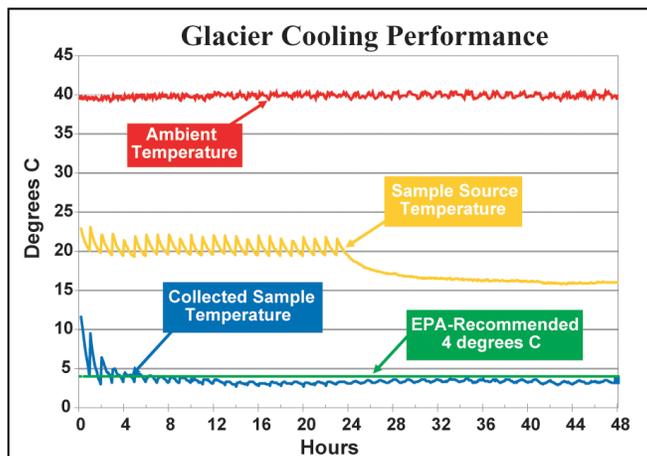
Above: Our optional mobility kit, with pneumatic tires, carries a 12V battery and lets Glacier roll easily over rough terrain.



Right: Under the cowl, a NEMA 4x, 6 (IP67) enclosure protects the detachable controller.

Unique temperature control system

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



Glacier's exclusive temperature control technology accurately preserves samples at 3°C – even under the difficult conditions shown here (40°C ambient, 20°C sample temperature).

Specifications

Isco Glacier sampler	
Size:	25 x 15 x 24 in (63 x 38 x 60 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°F to 104°F (0°C 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 feet (7.9 m)
Typical repeatability	±10 ml
Typical line velocity at head height: of	
3 ft. (0.9 m)	2.5 ft/s (0.76 m/s)
10 ft. (3.1 m)	2.5 ft/s (0.76 m/s)
15 ft. (4.6 m)	1.9 ft/s (0.58 m/s)
Liquid presence detector:	Non-wetted, non-conductive sensor for automatic detection of liquid

Controller	
Weight:	8 lbs (3.6 kg)
Size: (H x W x D)	10 x 12.5 x 10 in (26 x 32 x 25 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

Glacier Ordering Information

Note: Bottle configuration, suction line, and strainer must be ordered separately. 12 VDC operation requires suitable external battery.

Please contact Isco or your Isco representative for pricing and additional information as needed

Description	Part Number
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



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

Simplified controls and programming allow quick and easy push-button setup.



4700 Superior Street
Lincoln NE 68504 USA
Tel: (402) 464-0231
USA and Canada: (800) 228-4373
Fax: (402) 465-3022
E-Mail: iscoinfo@teledyne.com
Internet: www.teledyneisco.com