

# 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.



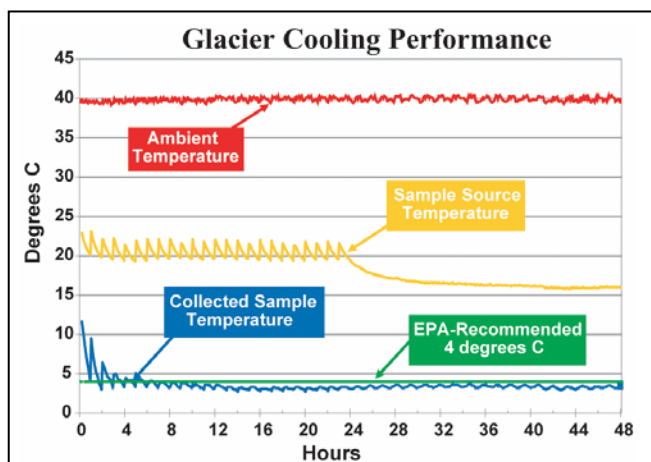
*Above: Our optional mobility kit, with pneumatic tires, carries a 12V battery and lets Glacier roll easily over rough terrain.*



*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		Controller	
Size:	25 x 15 x 24 in (63 x 38 x 60 cm)	Weight:	8 lbs (3.6 kg)
Weight:	60 lbs (28 kg)	Size: (H x W x D)	10 x 12.5 x 10 in (26 x 32 x 25 cm)
Bottle Types:	One 10-liter PE or Glass One 20-liter PE One 9-liter ProPak composite sample container with disposable liner	Operational temperature:	32° to 120°F (0° to 49°C)
Power Requirements:	12 VDC (Supplied by external battery, or AC power converter in dual-power version.)	Enclosure rating:	NEMA 4X, 6 (IP67)
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).	Program memory:	Non-volatile ROM
<b>Pump</b>		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
Intake suction tubing: Length Material Inside dimension	3 to 99 ft (1 to 30 m) Vinyl or PTFE-lined vinyl 3/8 in (9 mm) or 1/4 in (6 mm)	Number of samples to shutoff:	999 samples maximum with 5 gallon (19 liter) bottle.
Pump tubing life:	Typically 2,000 samples	Clock Accuracy:	1 minute per month, typical, for real-time clock
Maximum lift:	26 feet (7.9 m)	<b>Software</b>	
Typical repeatability	±10 ml	Sample frequency selection:	1 minute to 9,999 minutes, in 1-minute increments. 1 to 9,999 flow pulses
Typical line velocity at head height: of 3 ft. (0.9 m) 10 ft. (3.1 m) 15 ft. (4.6 m)	2.9 ft/s (0.88 m/s) 2.5 ft/s (0.76 m/s) 1.9 ft/s (0.58 m/s)	Sampling modes:	Time or flow, event. (Flow mode is controlled by external flow meter pulses.)
Liquid presence detector:	Non-wetted, non-conductive sensor for automatic detection of liquid	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.*



Water is life. Protect it.

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