

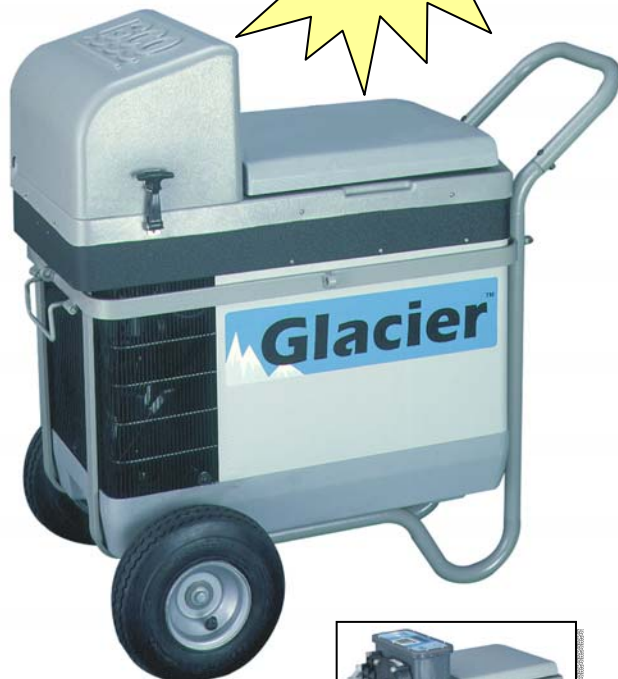
# Isco Glacier™ Transportable Refrigerated Sampler



## *It's a brand new kind of sampler!*

Isco's new Glacier™ Sampler combines the small size, light weight, and mobility of a portable 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!

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, the dual-power version runs on either 12 VDC or AC line voltage.



*Above: an optional mobility kit with pneumatic tires lets Glacier roll over rough terrain. Right: under the cowl, a NEMA 4x, 6 (IP67) enclosure protects the detachable controller.*

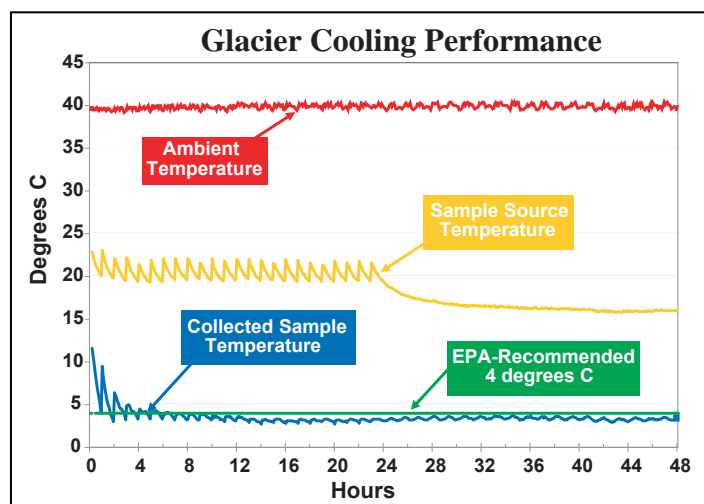
## *Dependable, easy-to-program controller*

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 controller. Min, max, and average temperature are reported on LCD and in 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.

## *Unique temperature control system*

Glacier's new patent-pending 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).*

Isco Glacier Specifications		Controller	
Size:	25 x 15 x 24 inches (63 x 38 x 60 cm)	Weight:	8 lbs. (3.6 kg)
Weight:	Dry, less battery - 53 lbs (23.5 kg)	Size:	10 x 12.5 x 10 inches (26 x 32 x 25 cm)
Bottle configurations:	1 - 10 Liter PE or Glass 1 - 20 Liter PE 1 - 9 Liter ProPak composite sample container with disposable liners	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 refrigeration system maintains sample temperature at 3°C±1°C at ambient temperature of 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.
Intake suction tubing:		External trigger:	Initiates sample collection and cooling from contact closure signal
Length	3 to 99 feet (1 to 30 m)	Number of samples to shutoff:	999 samples maximum with 5 gallon (19 liter) bottle.
Material	Vinyl or Teflon	Clock Accuracy:	1 minute per month, typical, for real time clock
Inside dimension	3/8 inch (9 mm) or 1/4 inch (6 mm)	<b>Software</b>	
Pump tubing life:	Typically 2,000 samples	Sample frequency selection:	1 minute to 9,999 minutes, in 1 minute increments. 1 to 9,999 flow pulses
Maximum lift:	26 feet (7.9 m)	Sampling modes:	Time or flow, event. (Flow mode is controlled by external flow meter pulses.)
Typical Repeatability	±10 ml	Programmable sample volumes:	10 to 9,990 ml in 1 ml increments
Typical line velocity at Head height: of		Program storage:	One program running, one stored
3 ft. (0.9 m)	2.9 ft./s (0.88 m/s)	Controller diagnostics:	Tests for RAM, ROM, pump, and display
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		

## 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, dual power option for AC or (external) 12 VDC powered applications.	68-2960-001
Glacier Sampler, 12 VDC powered only.	68-2960-002
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. Includes holder with 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 programming and controls make setup quick and push-button simple.*



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