

# Isco 5800

## Refrigerated Sampler

The **5800 Refrigerated Sampler** is Isco's answer to the rigorous demands of water monitoring. With user-friendly controls and workplace-savvy features, the 5800 is the only choice for stationary sampling in both municipal and industrial wastewater applications.

Along with easy control and on-site programmability, it also has a unique slide-out bottle rack that eliminates awkward stooping and bending when retrieving sample containers.

The controller actively regulates and displays the sample compartment temperature, and logs a 24-hour summary to confirm proper sample cooling. Not only can you download the temperature record with a basic utility program such as Tera Term, you can also view this information on the unit display.

### *Isco-tough— and environmentally friendly, too*

The 5800 Sampler follows the Isco standard for weather and corrosion resistance. The tough, double-wall LLDPE cabinet shrugs off exposure to weather and harsh environments. It is filled from top to bottom with insulation for efficient temperature control for keeping samples cool in hot, humid conditions and has heaters to keep the samples from freezing in cold conditions.

Heat-treated polyester powder coating protects the refrigeration system, ensuring long life and reliability in corrosive treatment plant conditions.



*A slide-out bottle rack and swing-away distributor arm allow obstacle-free access to your samples.*



### *Advanced delivery system*

The 5800 Sampler uses Isco's proven peristaltic pump to deliver samples at the EPA-recommended line velocity of at least 2 ft/s (0.6 m/s), even at head heights up to 25 feet (7.6 m).

Sample volume accuracy is assured by the pump revolution counter and Isco's liquid detection system. Pump tubing replacement is simple and fast without requiring tools. A safety interlock disables the pump during tube replacement.

### *Sampling modes*

- ◆ Constant time – Constant volume
- ◆ Constant time – Variable volume
- ◆ Variable time – Constant volume

### *Standard features*

- ◆ Composite or sequential sampling
- ◆ Operating range of -20 to 120°F (-29 to 49°C) – without additional heaters
- ◆ Four digital alarm outputs
- ◆ 4-20 mA and DC pulse flow meter input
- ◆ Powerful compressor delivers energy-efficient, high-performance cooling
- ◆ Four stored programs
- ◆ Lifting handles for easy installation
- ◆ Display will flash to indicate an error
- ◆ Efficient, high-performance cooling

## Specifications

Isco 5800 Refrigerated Sampler	
<b>Size (HxWxD):</b>	52 x 28 x 33 in (132 x 72 x 84 cm)
<b>Weight: (empty)</b>	184 lb (83.5 kg)
<b>Refrigerator body:</b>	Linear low-density polyethylene (LLDPE)
<b>Power requirements:</b>	115VAC, 60 Hz, or 230 VAC, 50 Hz (specify)
<b>Operational temperature:</b>	-20° to 120°F (-29° to 49°C) The display response time may be longer at temperatures below 0°F.
Pump	
Intake suction tubing	
Length:	3 to 99 feet (1 to 30 m)
Material:	Vinyl or FEP-lined PE.
Inside diameter:	3/8 inch (9 mm)
<b>Pump tubing life:</b>	Typically 1,000,000 pump counts.
<b>Maximum suction lift:</b>	28 feet (8.5 m)
<b>Typical repeatability:</b>	±5 ml or ±5% of the average volume in a set, whichever is greater, at lifts up to 25 ft.
<b>Typical accuracy at lifts up to 25 ft:</b>	±10 ml or ±10% of programmed value, whichever is greater.
Typical line velocity at head height	
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.



The 5800 is especially well suited for outdoor environments.

Its exclusive roto-molded cabinet provides a caliber of durability and insulation that's unmatched in the industry.



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Controller	
<b>Enclosure rating:</b>	NEMA 4X, 6 (IP67)
<b>Program memory:</b>	Non-volatile ROM.
<b>Flow meter signal inputs:</b>	5 to 15 volt DC pulse or 25 ms isolated contact closure for Isco flow meters. 4-20 mA input for non-Isco flow meters.
<b>Digital alarms:</b>	4 programmable outputs; 5V, 100 mA
<b>Number of composite samples:</b>	Programmable from 1 to 999 samples.
Software	
<b>Sample frequency:</b>	1 minute to 99 hours 59 minutes, in 1-minute increments. 1 to 9,999 flow pulses.
<b>Sampling modes:</b>	Constant time – constant volume, Constant time – variable volume, Variable time - constant volume (Flow modes are controlled by external flow meter signal).
<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>Controller diagnostics:</b>	Tests for RAM, ROM, pump, display, and electrical components.

## Ordering Information

Contact the factory or your Isco representative for complete ordering information.

Description	Part Number
<b>Isco 5800 Refrigerated Sampler.</b> Suction line, strainer, and bottle configuration not included; order separately.	
115V/60Hz	<b>68-5800-001</b>
230V/50Hz	<b>68-5800-002</b>
230V/50Hz w/ Chinese Display	<b>68-5800-003</b>
<b>Bottle Configurations:</b>	
Twenty-four 1-liter PP bottles	<b>68-5800-015</b>
Twenty-four 350-ml glass bottles	<b>68-5800-016</b>
Four 10-liter round PE bottles	<b>68-5800-005</b>
Four 10-liter round glass bottles	<b>68-5800-006</b>
Four 20-liter square PE bottles	<b>68-5800-019</b>
Two 10-liter round PE bottles	<b>68-5800-007</b>
Two 10-liter round glass bottles	<b>68-5800-008</b>
One 20-liter round PE bottle	<b>68-5800-011</b>
One 20-liter round glass bottle	<b>68-5800-012</b>
One 10-liter round PE bottle	<b>68-5800-009</b>
One 10-liter round glass bottle	<b>68-5800-010</b>
Twenty-four 1-liter ProPak bottles	<b>68-5800-017</b>
One 10-liter ProPak bottle	<b>68-5800-018</b>

