

# 5800

## Refrigerated Sampler



The 5800 Refrigerated Sampler is Teledyne ISCO's answer to the rigorous demands of water monitoring, with user-friendly controls and task accommodating features. Along with easy control and on-site programmability, it also has a unique slide-out bottle rack to easily access sample containers.

*The only choice for stationary sampling in both municipal and industrial wastewater applications.*

The controller actively regulates and displays the sample compartment temperature and logs a 24-hour summary to confirm proper sample cooling. The temperature record is downloadable using a basic utility program, such as Tera Term, or data can be viewed on the unit display.

The 5800 Sampler follows the Teledyne ISCO standard for weather and corrosion resistance. The tough, double-wall LLDPE cabinet protects against exposure in harsh environments. The well-insulated cabinet promotes temperature stability. Samples remain cool in hot and humid conditions, and a built in heater prevents freezing in cold conditions.

Electro- and powder-coating protects the stainless steel components of the refrigeration system, ensuring long life and reliability in corrosive treatment plant conditions.

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

Sample volume accuracy is assured by the pump revolution counter and Teledyne ISCO's liquid detection system.



*The 5800 sampler offers different glass and plastic bottle configurations to meet various sampling programs.*

### Applications:

- Wastewater treatment plants
- Industrial pretreatment
- Influent and effluent sampling

### 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 flowmeter input
- Powerful compressor delivers energy-efficient, high-performance cooling
- Four stored programs
- Lifting handles for easy installation

## 5800 Refrigerated Sampler

|                                 |   |
|---------------------------------|---|
| <b>Size (HxWxD):</b>            | 52 x 29 x 33 in (132 x 74 x 84 cm)  |
| <b>Weight (empty) :</b>         | 195 lb (88.5 kg)  |
| <b>Refrigerator Body:</b>       | Linear low-density polyethylene   |
| <b>Power Requirements:</b>      | 115VAC, 60 Hz, or 230 VAC, 50 Hz  |
| <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

|   |  |
|---|--|
| <b>Intake Suction Tubing</b>                  |  |
| -Length:                                      | 3 to 99 ft (0.9 to 30 m)   |
| -Material:                                    | Vinyl or FEP-lined PE  |
| -Inside Diameter:                             | 3/8 in (9 mm)  |
| <b>Pump Tubing Life:</b>                      | Typically 1,000,000 pump counts  |
| <b>Maximum Suction Lift:</b>                  | 28 ft (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   |
| <b>Typical Line Velocity at Head Height:</b>  | 3 ft (0.9 m) head height: 3.0 ft/s (0.9 m/s)<br>10 ft (3 m) head height: 2.9 ft/s (0.88 m/s)<br>15 ft (4.6 m) head height: 2.7 ft/s (0.82 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 |
|----------------------------------|---|

## 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 Teledyne ISCO flow meters. 4-20 mA input or non-Teledyne 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

### 5800 Refrigerated Sampler

Suction line, strainer, and bottle configuration not included; order separately.

|                                    |             |
|------------------------------------|-------------|
| 115V/60Hz .....                    | 68-5800-001 |
| 230V/50Hz .....                    | 68-5800-002 |
| 230V/50Hz w/ Chinese Display ..... | 68-5800-003 |

### Bottle Configurations

|   |             |
|---|-------------|
| Twenty-four 1-liter PP bottles .....    | 68-5800-015 |
| Twenty-four 350-ml glass bottles .....  | 68-5800-016 |
| Four 10-liter round PE bottles .....    | 68-5800-005 |
| Four 10-liter round glass bottles.....  | 68-5800-006 |
| Four 20-liter square PE bottles .....   | 68-5800-019 |
| Two 10-liter round PE bottles .....     | 68-5800-007 |
| Two 10-liter round glass bottles.....   | 68-5800-008 |
| One 20-liter round PE bottle .....      | 68-5800-011 |
| One 20-liter round glass bottle.....    | 68-5800-012 |
| One 10-liter round PE bottle .....      | 68-5800-009 |
| One 10-liter round glass bottle.....    | 68-5800-010 |
| Twenty-four 1-liter ProPak bottles..... | 68-5800-017 |
| One 10-liter ProPak bottle .....        | 68-5800-018 |

REPRESENTED BY:

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