

# Isco 3700 Portable Full-size Sampler

## *Full-size performance and flexibility*

The full-featured 3700 Sampler collects sequential or composite samples based on time, flow rate, or storm conditions.

## *Accurate, repeatable sample delivery*

The patented\* LD90 Liquid Presence Detector and exclusive pump revolution counting system deliver accurate, repeatable sample volumes time after time. This system gives you:

- ▶ Automatic compensation for changes in head heights
- ▶ Automatic suction line rinsing to eliminate sample cross contamination.

The LD90's non-contacting design is not affected by conductivity, viscosity, temperature, or liquid composition. There are no internal tubing connections, so cleaning and tubing replacement are fast and easy.

## *User-friendly programming for all applications*

Basic and extended programming modes provide you with the versatility for practically any sample collection scheme:

- ▶ Waste water treatment plants
- ▶ Water plant sampling
- ▶ Stormwater runoff
- ▶ Industrial waste water



## *Superior sample preservation*

With thick, foamed-in-place insulation and an exclusive twin-wall design, your samples are protected. Even in hot or cold temperatures, the 3700 provides the maximum performance in thermal preservation for a portable sampler.

## *Durable, reliable controller*

The 3700 Sampler controller components are protected in a tough environmentally sealed enclosure. The enclosure meets NEMA 4X and 6 (IP67) requirements for submersible, water-tight, dust-tight, and corrosion resistant operation.

\*Patent #5,125,801

# Isco 3700 Portable Full-size Sampler Specifications

## Sampler

|  |   |
|--|---|
| <b>Height:</b>   | 25 in (64 cm)   |
| <b>Diameter:</b>   | 19 in (50.5 cm)   |
| <b>Weight (dry):</b>   | 37 lbs (16.8 kg)  |
| <b>Cooling Capacity</b> (w/20 lbs of ice and 4-gal container full of 65° F water): |   |
|  | After 24 hrs: 32° F (18° C) below ambient   |
|  | After 48 hrs: 25° F (14° C) below ambient<br>(standard thermal resistance factor of R-11) |
| <b>Power Required:</b>   | 12 VDC  |

## Pump

|                                  |  |
|----------------------------------|--|
| <b>Intake Purge:</b>             | Adjustable air purge before and after each sample  |
| <b>Suction Tubing:</b>           | Allowable length: 3 to 99 ft (1 to 30 m)<br>Material: Vinyl or Teflon® lined<br>Inside dimension: 3/8 or 1/4 in (1.0 or 0.6 cm)<br>Maximum sample lift: 26 ft (7.9 m)<br>Typical line transport velocity:<br>@ 3 ft (0.9 m) head height: 2.9 ft/s (0.88 m/s)<br>@ 10 ft (3.1 m) head height: 2.5 ft/s (0.76 m/s)<br>@ 15 ft (4.6 m) head height: 1.9 ft/s (0.58 m/s)<br>Typical repeatability: ± 10 ml |
| <b>Pump Tubing:</b>              | Recommended life: 500,000 pump counts<br>(Note: A tubing life warning indicator is provided)   |
| <b>Liquid Presence Detector:</b> | Non-wetted, nonconductive sensor detects when liquid sample reaches the pump to automatically compensate for changes in head heights.  |

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## Controller

|  |   |
|--|---|
| <b>Dimensions (HxWxD):</b>             | 6.75 x 13.0 x 10.0 in (17.0 x 33.0 x 25.0 cm)                                   |
| <b>Weight (dry):</b>                   | 11.0 lbs (5.9 kg)   |
| <b>Operating Temperature:</b>          | 32° to 120° F (0° to 49° C)   |
| <b>Enclosure Rating:</b>               | NEMA 4X, 6 (IP67)   |
| <b>Program Memory:</b>                 | Non-volatile ROM  |
| <b>Flow Meter Signal Requirements:</b> | 5 to 15 VDC pulse or 25 ms isolated contact closure                             |
| <b>Interface Port:</b>                 | 8-pin connector; data output at 2400 baud in ASCII RS-232 format with handshake |
| <b>Real Time Clock Accuracy:</b>       | 1 minute per month, typical   |

## Software

|                                     |  |
|-------------------------------------|--|
| <b>Sample Frequency Selection:</b>  | 1 minute to 99 hours and 59 minutes, in one-minute increments. Non-uniform times in minutes or clock times: 1 to 9,999 flow pulses.  |
| <b>Sampling Modes:</b>              |  |
| <b>Sample Pacing:</b>               | Uniform time, non-uniform time, flow, flow paced/time switched, or STORM (time- and flow-paced sampling during sample collection).<br>Note: Flow pacing is controlled by external flow pulses. |
| <b>Multiplexing:</b>                | Samples per bottle: 1 to 50 with 100 ml bottles<br>1 to 17 with 350 ml bottles<br><br>Bottles per sample: 1 to 24, multiple bottle compositing   |
| <b>Programmable Sample Volumes:</b> | 10 to 9,999 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>Program Storage:</b>             | 3 sampling programs  |
| <b>Programming Modes:</b>           | Basic, extended, and STORM   |
| <b>Sampling Stop/Resume:</b>        | Up to 24 real time/date stop/resume commands   |
| <b>Controller Diagnostics:</b>      | Tests for RAM, ROM, pump display, and distributor  |

## Ordering Information

### Isco 3700 Portable Sampler with:

|   |             |
|---|-------------|
| 24 1-liter wedge shaped polypropylene bottles ..... | 68-3700-001 |
| 24 350-ml round glass bottles .....                 | 68-3700-002 |
| 1 2.5-gallon round polyethylene bottle .....        | 68-3700-014 |
| 1 2.5-gallon round glass bottle .....               | 68-3700-015 |
| 1 4-gallon round polyethylene bottle .....          | 68-3700-016 |
| <i>(Includes composite base)</i>                    |             |

Suction line and strainer not included; order separately.  
Contact the factory or your Isco representative for complete ordering information.



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