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 exclusive LD90 Liquid Presence Detector and patented* 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 collection scheme:
➤ Uniform time intervals
➤ Non-uniform time intervals
➤ Stormwater runoff sampling
➤ Multiple bottle compositing
➤ Split sampling

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.

Interchangeable 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. To give you added flexibility, the 3700 Series controllers are fully interchangeable for portable or refrigerated sampling.
### Isco 3700 Portable Full-size Sampler Specifications

Contact the factory or your Isco representative for additional specifications.

#### Sampler

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
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</tr>
</thead>
<tbody>
<tr>
<td>24 - 1 liter wedge shaped polypropylene bottles</td>
<td>68-3700-001</td>
<td>4 - 1 gallon round glass bottles</td>
<td>68-3700-011</td>
</tr>
<tr>
<td>24 - 350 ml round glass bottles</td>
<td>68-3700-002</td>
<td>1 - 2.5 gallon round polyethylene bottle</td>
<td>68-3700-014</td>
</tr>
<tr>
<td>12 - 1 liter round polyethylene bottles</td>
<td>68-3700-027</td>
<td>1 - 2.5 gallon round glass bottle</td>
<td>68-3700-015</td>
</tr>
<tr>
<td>12 - 1 liter round glass bottles</td>
<td>68-3700-017</td>
<td>1 - 4 gallon round polyethylene bottle</td>
<td>68-3700-016</td>
</tr>
<tr>
<td>4 - 1 gallon round polyethylene bottles</td>
<td>68-3700-036</td>
<td></td>
<td></td>
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#### Controller

<table>
<thead>
<tr>
<th>Weight</th>
<th>11 lbs.</th>
<th>5.9 kg</th>
</tr>
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<tbody>
<tr>
<td>Dimensions</td>
<td>10 x 12.5 x 10 in.</td>
<td>26 x 32 x 25 cm</td>
</tr>
<tr>
<td>Operational Temperature</td>
<td>32°F to 120°F</td>
<td>0°C to 49°C</td>
</tr>
<tr>
<td>Enclosure Rating</td>
<td>NEMA 4X</td>
<td>IP67</td>
</tr>
<tr>
<td>Program Memory</td>
<td>Non-volatile ROM</td>
<td></td>
</tr>
<tr>
<td>Flow Meter</td>
<td>5 to 15 volt DC/pulse or 25 millisecond isolated contact closure</td>
<td></td>
</tr>
<tr>
<td>Interface Port</td>
<td>8 pin connector; data output at 2400 baud in ASCII RS-232 format with handshake</td>
<td></td>
</tr>
<tr>
<td>Real Time Clock Accuracy</td>
<td>1 minute per month, typical</td>
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#### Software

- **Sample Frequency Selection**: 1 minute to 99 hours 59 minutes, in 1 minute increments
- **Non-uniform times in minutes or clock times**: 1 to 9,999 flow pulses
- **Sampling Modes**
  - **Sample pacing**: Uniform time, non-uniform time, flow, flow paced/time switched, STORM (time and flow paced sampling during sample collection.) Flow pacing is controlled by external flow pulses.
  - **Multiplexing**: Samples per bottle (1 to 50 with 1000 ml bottles; 1 to 17 with 350 ml bottles), bottles per sample (1 to 24), multiple bottle compositing.
- **Programmable Sample Volumes**: 10 to 9,990 ml in 1 ml increments
- **Sample Retries**: If no sample is detected, up to 3 attempts; user selectable
- **Rinse Cycles**: Automatic rinsing of suction line up to 3 rinses for each sample collection
- **Program Storage**: 3 sampling programs
- **Programming Modes**: Basic, extended and STORM
- **Sampling Stop/Resume**: Up to 24 real time/date sample stop/resume commands.
- **Controller Diagnostics**: Tests for RAM, ROM, pump display, and distributor

#### Pump

- **Intake Purge**: Adjustable air purge before and after each sample
- **Tubing Life Indicator**: Provides a warning to change pump tubing
- **Intake Suction Tubing Length**: 3 to 99 ft. (1 to 30 m)
- **Material**: Vinyl or Teflon® lined
- **Inside Dimension**: ⅜ in. or ¼ in. (1 cm or 0.6 cm)
- **Pump Tubing Life**: Recommended 500,000 pump counts
- **Maximum Suction Lift**: 26 ft. (7.9 m)
- **Typical Repeatability**: ±10 ml
- **Typical Line Transport Velocity**
  - at head heights of:
    - 3 ft. (0.9 m): 2.9 ft./s, 0.88 m/s
    - 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, nonconductive sensor detects when liquid sample reaches the pump to automatically compensate for changes in head heights.

#### Cooling Capacity

- **(with 20 lbs. of ice and 4 gal. container full of 65°F water)**
  - After 24 hours: 32°F (18°C) below ambient
  - After 48 hours: 25°F (14°C) below ambient

#### Power Requirements

- **12 volts DC**: (Supplied by battery or AC power converter)

#### Ordering Information

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

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