

# Isco 6712 Full-size Portable Sampler

Isco's 6700 Series Portable Samplers have set the industry standard, providing the most comprehensive and durable performance available. With the introduction of our new 6712, Isco takes another step toward the ultimate by including SDI-12 interface capabilities.

The 6712 uses Isco's advanced 6700 Series Controller, a device that allows you to select from a variety of programming modes, assuring the most suitable routine for your application. Programming is fast and simple, with on-line help just a key stroke away.

The environmentally-sealed 6712 controller delivers maximum accuracy and easily handles all of your sampling applications, including:

- wastewater effluent
- stormwater monitoring
- CSO monitoring
- permit compliance
- pretreatment compliance

In the Standard Programming Mode, the controller walks you through the sampling sequence step-by-step, allowing you to choose all parameters specific to your application. Selecting the Extended Programming Mode lets you enter more complex programs.

An optional telephone modem allows programming changes and data collection to be performed remotely, from a touch-tone phone. It also has dial-out alarm features.

*Bottle options are available for practically any sequential or composite application.*



## ***Versatile and Convenient***

With eleven bottle choices, Isco's 6712 Sampler lets you quickly adapt for simple or intricate sampling routines. Up to 30 pounds (13.5 kg) of ice fits in the insulated base, preserving samples for extended periods, even in extreme conditions. A convenient drain plug aids removal of water from melted ice.

## ***Tough and Reliable***

The 6712 Portable Sampler features a vacuum-formed ABS plastic shell to withstand exposure and abuse. Its tapered design and trim 20-inch (50.8 cm) diameter result in easy manhole installation and removal. Large, comfortable handles make transporting safe and convenient—even when wearing gloves.

Isco's 6712 Portable Sampler carries a NEMA 4X, 6 (IP67) enclosure rating. It's submersible, watertight, dust-tight, and resistant to sleet and corrosion.

Superior capability, rugged construction, and unmatched reliability make the 6712 the ideal choice for portable sampling in just about any application.

## All 6712 Samplers share the following features:

### **Advanced Delivery System**

The 6712's peristaltic pump delivers samples at the EPA-recommended velocity of 2 ft/sec., even at head heights of 26 feet. At a head height of 3 feet, line velocity is 3 ft/sec. No other automatic sampler achieves this level of performance!

Our patented\* pump revolution counter tells you when tubing should be replaced. Changing tubing is a snap; there are no pump covers, collars or tools to slow you down. An exclusive safety interlock removes power from the pump when it's opened.

### **Step-by-Step Programming**

This feature walks you through the sampling sequence and allows you to choose all parameters specific to your application:

- When to start
- What volume to collect
- How to distribute samples
- If samples are to be time- or flow-paced.

You can easily enter complex programs to suit your unique needs. Available routines include:

- Pause and resume for intermittent discharge flow monitoring
- Sampler pacing by time, non-uniform time, flow or external event
- Random interval sample collection

### **Convenient Data Retrieval**

Every 6712 Sampler is also a powerful data logger. Sampling, flow, rainfall, and other water quality data can be stored in its 4mB memory.

Data may be retrieved directly into a Flowlink® 4 equipped PC in three ways:

- Via cable connection
- Remotely, via Isco's 2102 Wireless Communication System
- By phone, using our optional built-in modem

### **SDI-12 Interfacing**

The 6712 functions as a SDI-12 logger and connects to any sensor that fully implements the protocol standard.



*Display window showing SDI-12 connection status.*

In addition, Isco has defined extended commands to enable "plug and play" communications and ease of programming. These commands are implemented by the sensor manufacturer. Data are identified and logged by their specific type.

## Expand your monitoring capabilities with these products and accessories.

Contact Isco or your Isco Representative to receive specific literature and prices on the following items.

### **Telephone Modem**

A factory-installed option that lets you set up and make programming changes, or collect data from your 6712 sampler from the comfort of your office.

### **581 RTD (Rapid Transfer Device)**

Slim enough to fit in your shirt pocket, yet rugged enough to withstand submersion, the 581 RTD lets you quickly retrieve and transfer data without taking your laptop computer into the field.



### **ProPak™ Disposable Sample Bags**

Isco's patented ProPak bags eliminate the expense of washing and storing bottles, while taking away worries about contamination from previous samples. The bags are available with a 1000 ml capacity, or in a 2-gallon version for composite sampling.

### **Flowlink Software**

Isco's advanced Flowlink® 4 for Windows Data Management Software harnesses the power of Microsoft Windows® to retrieve, import, compare, and analyze data, generate advanced charts and graphs, create comprehensive reports, and more.

## 700 Series Modules

Our 700 Series Modules let you adapt your 6712 sampler for a variety of jobs. These compact modules are environmentally sealed and may be added to your 6712 system at any time.



### 701 – pH and Temperature Module

Combines accurate pH and temperature monitoring in one module. It will also activate your 6712 Sampler at a user-elected pH or temperature range.

### 710 – Ultrasonic Flow Module

Uses our field-proven ultrasonic level sensor that doesn't require submersion in the flow stream.

### 720 – Submerged Probe Flow Module

Provides accurate measurement at sites where wind, steam, foam, turbulence, or air temperature fluctuations exist. Suitable for small channels, it accurately senses pressure even when covered with silt and sand.

### 730 – Bubbler Flow Module

Get the dependability and accuracy of Isco bubbler flow meters in a miniaturized package. The 730 is unaffected by changing stream conditions, and level measurement remains accurate despite temperature fluctuations or exposure to harsh chemicals.

### 750 – Area Velocity Flow Module

Gives greater accuracy where weirs and flumes are not practical, and where submerged, full pipe, surcharged, and reverse flow conditions may occur. And, you don't have to estimate the slope and roughness of the channel.

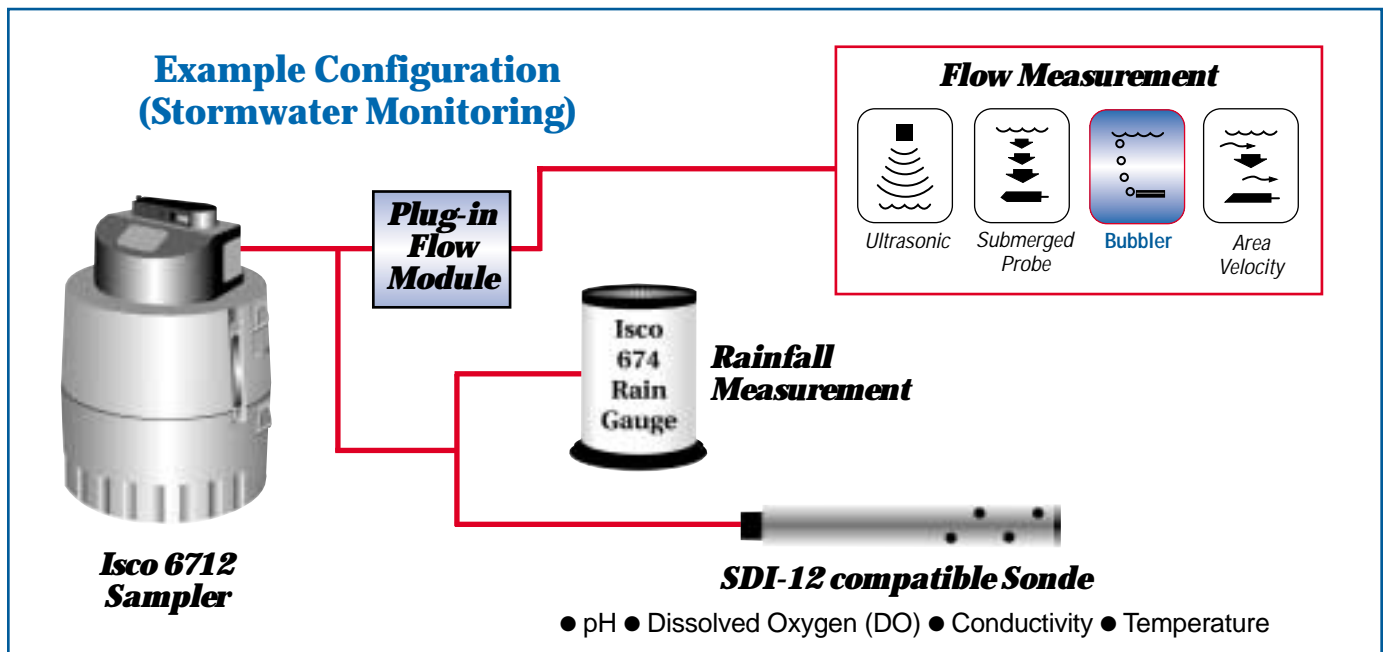
### 780 – Smart 4-20 Module

Add intelligence to a simple analog signal. Flow rates are displayed in actual volume units, not merely a percent of full scale. Any linear 4-20 mA input can be characterized by using the 780. The information can be stored and retrieved for later analysis.

## Integrated Water Monitoring

Isco 6712 Samplers feature “plug and play” connection with SDI-12 compatible measuring devices - including multi-parameter sondes from leading manufacturers. Combined with the 6712's

standard 4MB of memory, SDI-12 networking gives you great flexibility for logging environmental data, and for “smart sampling” event notification, triggered on any combination of up to 16 inputs.



# Isco 6712 Full-size Portable Sampler Specifications

Sampler			Controller		
Height	27.0 in.	68.6 cm	Weight	13 lbs.	5.9 kg
Diameter	20 in.	50.7 cm	Dimensions	10.3 x 12.5 x 10 in.	26 x 31.7 x 25.4 cm
Weight (Dry/Less Battery)	32 lbs.	15 kg	Operational Temperature	32° to 120°F	0° to 49°C
Material	Fiberglass-reinforced plastic with UV-resistant gel coat		Enclosure Rating	NEMA 4X, 6	IP67
Power Requirements	12 VDC		Program Memory	Non-volatile ROM	
Pump			Flow Meter Signal Requirements	5 to 15 volt DC pulse or 25 millisecond isolated contact closure.	
Intake Purge	Adjustable air purge before and after each sample.		Number of Programmable Composite Samples	1 to 999 samples.	
Tubing Life Indicator	Provides a warning to change pump tubing.		Real Time Clock Accuracy	1 minute per month, typical	
Intake Suction Tubing			Software		
Length	3 to 99 ft.	1 to 30 m	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	
Material	Vinyl or Teflon® lined		Sampling Modes	Uniform time, non-uniform time, flow. <i>(Flow mode is controlled by external flow meter pulses.)</i>	
Inside Dimension	¾ in.	1 cm	Programmable Sample Volumes	10 to 9,990 ml in 1 ml increments	
Pump Tubing Life	Typically 100,000,000 pump counts		Sample Retries	If no sample is detected, up to 3 attempts; user selectable	
Maximum Suction Lift	28 ft.	8.5 m	Rinse Cycles	Automatic rinsing of suction line up to 3 rinses for each sample collection	
Typical Repeatability	±5 ml or ±5% of the average volume in a set		Program Storage	5 sampling programs	
Typical Line Transport Velocity at head heights of:			Sampling Stop/Resume	Up to 24 real time/date sample stop/resume commands	
3 ft. (0.9 m)	3.0 ft./s	0.91 m/s	Controller Diagnostics	Tests for RAM, ROM, pump display, and distributor	
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			
Liquid Presence Detector	Non-wetted, non-conductive sensor detects when liquid sample reaches the pump to automatically compensate for changes in head heights.				

## Ordering Information

Description	Part Number
6712 Portable Sampler, Full-size Includes controller with 4 MB RAM, top cover, center section, base, distributor arm, instruction manual, pocket guide.	68-6710-070
6712 Portable Sampler with Jumbo Base (as described above)	68-6710-082

Note: Power source, bottle configuration, suction line, and strainer must be ordered separately. Other options and accessories are also available. Contact Isco or your Isco Representative for complete information.



The 6712 Controller is an SDI-12 logger. Manual pump operations are now located on the front panel keys.



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