

Isco 3710R Refrigerated Composite

The 3710R Sampler is ideal for general purpose or toxic pollutant composite sampling. It collects composite samples based on time or flow intervals in a single container. The refrigerator holds a 2½ gallon glass or polyethylene bottle, or a 4 or 5½ gallon polyethylene bottle. Up to 24 sampling stop and resume times can be preset for unattended, automatic sampling.

Accurate, repeatable sample delivery

The exclusive LD90 Liquid Presence Detector and patented* Isco pump revolution counting system deliver accurate, repeatable, sample volumes time after time. It automatically compensates for changes in head height. The non-contacting LD90 is not affected by conductivity, viscosity, temperature, or effluent composition.

*Patent #4,415,011



Corrosion-resistant R-series samplers are ideal for indoor sampling. For outdoor installations, we recommend the FR-series fiberglass samplers.



Proven refrigeration system

Special corrosion resistant coatings on the refrigeration components provide maintenance-free operation. Baked-on enamel on the evaporator plate, phenolic-coated refrigeration lines, and enamel-coated condenser coils increase corrosion-resistance.

Thick side foam insulation provides efficient temperature control in the sample compartment. Wrap around construction of the evaporator plate provides fast, effective cooling. The R Series refrigerators maintain the sample compartment at the EPA recommended temperature of 39°F (4°C) for optimum sample preservation.

User friendly programming for all applications

The Isco 3710R Sampler offers you basic and extended programming modes. This provides you with the versatility to easily program your sampler for:

- Uniform time intervals
- Non-uniform time intervals
- Single bottle compositing
- Split sampling

Isco 3710R Refrigerated Composite Sampler Specifications

Contact the factory or your Isco representative for additional specifications.

Refrigerator		
Height	45¾ in.	117 cm
Width	25 in.	64 cm
Depth	25 in.	64 cm
Weight (dry)	145 lbs.	65.8 kg
Corrosion Protection		
Condenser	Enamel paint	
Compressor	Enamel paint	
Evaporator	Enamel	
Refrigeration tubing	Phenolic resin	
Insulation		
	Environmentally safe, non-CFC foam	
Top	1¾ in.	3.49 cm
Sides	1¾ in.	2.86 cm
Thermal Resistance Factor		
	R-11	
Thermostat		
	1 mechanical bulb-type	
Typical Recovery Time		
	10 minutes	
External Temperature (with door open for one minute)	75°F	24°C
Typical Pull Down Time		
from 75° to 39°F (24° to 0°C)	30 minutes	
Sample Temperature		
Set-point Range	32° to 46°F	0° to 8°C
Sample Temperature		
Set-point Accuracy (at 4°C)	±1.8°F	±1°C
Power Requirements		
	120V 60 Hz	240V 50/60 Hz
Current Draw		
Running	3.3 amp @ 120V	1.7 amp @ 240V
Starting/Stalled	8.6 amp @ 120V	4.3 amp @ 240V
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	Time, non-uniform time, and flow	
Programmable Sample Volumes	10 to 9900 ml in 1 ml increments	
Liquid Presence Detector	Non-wetted, non-conductive sensor	
Sample Retries	If no sample is detected, up to 3 attempts; user selectable	
Rinse Cycles		Automatically controlled, maximum of 3
Maximum Number of Composite Samples		Up to 999 programmed samples or with fail-safe weight table shutoff
Programming Modes		Basic, extended
Program Storage		3 sampling programs
Sampling stop/resume		Up to 24 real time/date sample stop/resume commands
Controller Diagnostics		Tests for RAM, ROM, and pump display
Controller		
Weight	11 lbs.	5.9 kg
Dimensions	10 x 12.5 x 10 in.	26 x 32 x 25 cm
Operational Temperature	32° to 120°F	0° to 50°C
Enclosure Rating	NEMA 4X, 6	IP67
Internal Lithium Battery Life		
	5 years minimum	
Flow Meter	5 to 15 volt DC pulse or 25 millisecond isolated contact closure	
Signal Requirements		
Interface Port	8 pin connector; data output at 2400 baud in ASCII RS-232 format with handshake.	
Real Time Clock Accuracy		
	1 minute per month, typical	
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	
Inside Dimension	¾ in. or ¼ in.	1 cm or 0.6 cm
Pump Tubing Life		
	Typically 500,000 pump counts	
Pumping Rate		
at 3 ft. (.91 m) head	¼ in. (.635 cm) ID suction tubing: 3000 ml/min ¾ in. (.955 cm) ID suction tubing: 3500 ml/min	
Maximum Suction Lift		
	26 ft.	7.9 m
Typical Repeatability		
	±10 ml	
Typical Line Transport Velocity		
at 3 ft. (.91 m) head	¼ in. (.635 cm) ID suction tubing: 5.1 ft./s (155 cm/s) ¾ in. (.955 cm) ID suction tubing: 2.5 ft./s (76.2 cm/s)	
Liquid Presence Detector		
	Non-wetted, nonconductive sensor	

Ordering Information

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

Description	Part Number	
3710R Refrigerated Sampler	120V AC, 60 Hz	240V AC, 50/60 Hz
one 2.5 gallon (9450 ml) round polyethylene bottle	68-3750-006	68-3750-007
one 2.5 gallon (9450 ml) round glass bottle	68-3750-008	68-3750-009
one 4 gallon (15 liter) round polyethylene bottle	68-3750-010	68-3750-011
one 5.5 gallon (21 liter) round polyethylene bottle	68-3750-012	68-3750-013



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