



# Fax Transmittal

Date: May 4, 2011

<b>To</b>
<b>Frank Whittaker</b> State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Charleston, Wv 25305-0130  Phone: (304) 558-2316 Fax: (304) 558-3970

Number of Pages: 21

## Subject: RFQ DNR211168 Bid opening 05/05/2011 @ 1:30 PM

Please deliver this to the appropriate person.  
Thank You!!

RECEIVED  
 2011 MAY -4 PM 2:01  
 WV PURCHASING  
 DIVISION

<b>Mike Minter</b> Advance Instruments Inc. 8 Four Coins Drive Canonsburg, PA 15317  Phone: 724-746-4600 Fax: 724-746-2021
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State of West Virginia  
 Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

**Request for  
 Quotation**

RFQ NUMBER  
**DNR211168**

PAGE  
**1**

ADDRESS CORRESPONDENCE TO ATTENTION FOR  
**FRANK WHITTAKER  
 304-558-2316**

Advance Instruments Inc 724-746-4600  
 8 Four Goins Dr  
 Canonsburg PA 15317

**DIVISION OF NATURAL RESOURCES  
 JOBSITE  
 SEE SPECIFICATIONS**

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
04/05/2011				
BID OPENING DATE: 05/05/2011		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO	TEL NUMBER	UNIT PRICE	AMOUNT
0001	1	LS	493-96		21,826.70	21,826.70
<p><b>WATER QUALITY MONITORING EQUIPMENT</b></p> <p>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF NATURAL RESOURCES IS SOLICITING BIDS FOR COMPOSITE WATER SAMPLING EQUIPMENT FOR BOWDEN HATCHERY AND REEDS CREEK HATCHERY, PER THE ATTACHED SPECIFICATIONS.</p> <p>ALL TECHNICAL QUESTIONS MUST BE SUBMITTED IN WRITING TO FRANK WHITTAKER IN THE WV PURCHASING DIVISION VIA EMAIL AT FRANK.M.WHITTAKER@WV.GOV OR VIA FAX AT 304-558-4115. DEADLINE FOR ALL TECHNICAL QUESTIONS IS 04/18/2011 AT 4:00 PM. ALL TECHNICAL QUESTIONS WILL BE ADDRESSED BY ADDENDUM AFTER THE DEADLINE.</p> <p><b>BANKRUPTCY:</b> IN THE EVENT THE VENDDR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>THE MODEL/BRAND/SPECIFICATIONS NAMED HEREIN ESTABLISH THE ACCEPTABLE LEVEL OF QUALITY ONLY AND ARE NOT INTENDED TO REFLECT A PREFERENCE OR FAVOR ANY PARTICULAR BRAND OR VENDOR. VENDORS WHO ARE BIDDING ALTERNATES SHOULD SO STATE AND INCLUDE PERTINENT LITERATURE AND SPECIFICATIONS. FAILURE TO PROVIDE INFORMATION FOR ANY ALTERNATES MAY BE GROUNDS FOR REJECTION OF THE BID. THE STATE RESERVES THE RIGHT</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE *Mike Whittaker* TELEPHONE 724-746-4600 DATE May 4, 2011

TITLE Vice President FEIN 160698043 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



State of West Virginia  
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**2**

ADDRESS CORRESPONDENCE TO ATTENTION OF  
**FRANK WHITTAKER  
 304-558-2316**

Advance Instruments Inc 724-746-4600  
 8 Four Coins Dr  
 Canonsburg PA 15317

DIVISION OF NATURAL RESOURCES

**DIVISION OF NATURAL RESOURCES  
 JOBSITE  
 SEE SPECIFICATIONS**

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
04/05/2011				
BID OPENING DATE: <b>05/05/2011</b>		BID OPENING TIME <b>01:30PM</b>		

LINE	QUANTITY	LOF	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>TO WAIVE MINOR IRREGULARITIES IN BIDS OR SPECIFICATIONS IN ACCORDANCE WITH SECTION 148-1-4(F) OF THE WEST VIRGINIA LEGISLATIVE RULES AND REGULATIONS.</p> <p style="text-align: center;"><b>NOTICE</b></p> <p><b>A SIGNED BID MUST BE SUBMITTED TO:</b></p> <p style="text-align: center;">                 DEPARTMENT OF ADMINISTRATION                  PURCHASING DIVISION                  BUILDING 15                  2019 WASHINGTON STREET, EAST                  CHARLESTON, WV 25305-0130             </p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p><b>SEALED BID</b></p> <p>BUYER: 44</p> <p>RFQ. NO.: DNR211168</p> <p>BID OPENING DATE: 05/05/2011</p> <p>BID OPENING TIME: 1:30 PM</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Mike Minto</i>	TELEPHONE 724-746-4600	DATE May 4, 2011
TITLE Vice President	FEIN 160698043	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



State of West Virginia  
Department of Administration  
Purchasing Division  
2019 Washington Street East  
Post Office Box 50130  
Charleston, WV 25305-0130

### Request for Quotation

REQ NUMBER  
**DNR211168**

PAGE  
**3**

ADDRESS CORRESPONDENCE TO ATTENTION OF  
**FRANK WHITTAKER  
304-558-2316**

Advance Instruments Inc. 724-746-4600  
8 Four Coins Dr  
Canonsburg PA 15317

S P T O

**DIVISION OF NATURAL RESOURCES  
JOBSITE  
SEE SPECIFICATIONS**

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
<b>04/05/2011</b>				

BID OPENING DATE: **05/05/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOF	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
CONTACT PERSON (PLEASE PRINT CLEARLY): Mike Minter						
***** THIS IS THE END OF RFQ DNR211168 ***** TOTAL:						21,826.70
Twenty One Thousand Eight Hundred Twenty Six Dollars and Seventy Cents						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Mike Minter</i>	TELEPHONE 724-746-4600	DATE May 4, 2011
TITLE Vice President FEIN 160698043	ADDRESS CHANGES TO BE NOTED ABOVE	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

**Wildlife Resources  
Composite Water Samplers  
DNR211168**

The West Virginia Division of Purchasing for the West Virginia Division of Natural Resources is requesting bids for the purchase of two (2) composite water samplers. All items are to be F.O.B. Destination. Freight or delivery charges must be included in the price of the goods. Delivery must be made within thirty (30) days of purchase order award.

**Specifications:**

Composite Water Samplers must meet the following specifications:

- HACH 900MAX AWRS1HTR or equivalent; heated and refrigerated capabilities
- Ultrasonic flow meter; capable of measuring piped water flow
- Ultrasonic sensor, 0-10 ft. range
- Integral pH-temperature meter
- pH probe
- Temperature probe
- Integral Dissolved Oxygen meter
- D.O. probe
- AC power with battery back-up
- Anchor kit for attaching unit to concrete pad
- D.O. probe kit
- Probes and meters should have 15-ft (minimum) cables
- Full Day Field Service Start Up-Sampler
- Owners Manual

**(1) To be delivered to: Bowden Hatchery, Randolph County, Rt. 1, Box 80, Elkins, WV  
Contact: Frank Williams (304) 637-0238 for additional information and directions**

**(1) To be delivered to: Reeds Creek Hatchery, Pendleton County, HC 60, Box 78A, Franklin WV  
Contact: Dave Alt (304) 358-2595 for additional information and directions**

**Damaged Items:**

Damaged or defective items must be replaced at no additional expense to Wildlife Resources.

**Warranty:**

The composite water samplers must be guaranteed to be free of defects in workmanship and material for a minimum of one (1) year from date of acceptance. However, if manufacturer warranty periods are longer than the required minimum one year warranty, those warranties shall apply.

**DNR211168  
Wildlife Resources  
Composite Water Samplers**

**Pricing Sheet**

Item	Quantity	Description	Unit Price	Total
1	2	HACH 900MAX AWRS1HTR or equivalent Composite Water Samplers	10,913.35	21,826.70

**DNR211168**  
**Wildlife Resources**  
**Composite Water Samplers**

**Manufacturer's List**

Item	Description	Manufacturer	Model No.
1	HACH 900 MAX AWRS1HTR Or Equal Composite Water Samplers	Teledyne Isco	6712FR

Rev. 09/08

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application\* is hereby made for Preference in accordance with West Virginia Code, §5A-3-37. (Does not apply to construction contracts). West Virginia Code, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the West Virginia Code. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1. Application is made for 2.5% resident vendor preference for the reason checked:
NO Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
NO Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
NO Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,

2. Application is made for 2.5% resident vendor preference for the reason checked:
NO Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

3. Application is made for 2.5% resident vendor preference for the reason checked:
NO Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

4. Application is made for 5% resident vendor preference for the reason checked:
NO Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,

5. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:
NO Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,

6. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:
NO Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: Advance Instruments Inc Signed: Mike Natto

Date: May 4, 2011 Title: Vice President

\*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.



RFQ No. DNR 211168

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

**DEFINITIONS:**

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

**EXCEPTION:** The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (West Virginia Code §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

**WITNESS THE FOLLOWING SIGNATURE**

Vendor's Name: Advance Instruments, Inc

Authorized Signature: [Signature] Date: May 4, 2011

State of PA

County of Washington, to-wit:

Taken, subscribed, and sworn to before me this 4<sup>th</sup> day of MAY, 2011.

My Commission expires MARCH 19, 2012.

**AFFIX SEAL HERE**

NOTARY PUBLIC [Signature]

COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Joanne V. Thompson, Notary Public  
North Strabane Twp., Washington County  
My Commission Expires March 19, 2012  
Member, Pennsylvania Association of Notaries



**Quotation Number**  
 (Please Refer To This Number When Ordering)  
**WT04-MM110504-DNR211168**

## Quotation

Date: May 4, 2011

Reference  
 FRQ DNR211168

This document is offered on the express conditions that the terms stated below are the exclusive terms and conditions of any resulting transaction.

**Frank Whittaker**

State of West Virginia Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Charleston, Wv 25305-0130

Phone (304) 558-2316  
 Fax (304) 558-3970

Please Address Your Order To:

**Advance Instruments Inc.**  
 8 Four Coins Drive  
 Canonsburg, PA 15317  
 Phone: (724) 746-4600 Fax: (724) 746-2021

Item	Qty	Model No.	Description	Unit Price	Total
A	2	68-6710-072	6712FR Refrigerated Sampler (120 VAC, 60 Hz). Includes controller, refrigeration unit, distributor arm, two pump tubes, instruction manual, and pocket guide.	\$5,110.20	\$10,220.40
B	2	68-6700-135	FR Battery Back-up kit. Includes Isco NiCad battery 60-1684-040 and instruction sheet. The battery provides 12VDC power to continue sampler operation should AC input power fail.	\$213.35	\$426.70
C	2	60-5314-020	SPA 1020. 6712FR Controller Compartment Heater.	\$495.00	\$990.00
D	2	68-6700-049	710 Module with ultrasonic level sensor with 25 ft. cable. Includes sensor mounting bracket, instruction manual, and coupon for free Isco Open Channel Flow Measurement Handbook.	\$1,462.85	\$2,925.70
E	2	68-6700-041	1-bottle Configuration. Includes one polyethylene 5.5-gallon (20.5-liter) round bottle, two caps and two discharge tubes.	\$137.70	\$275.40
F	2	60-9004-379	3/8 inch ID x 25 ft. long vinyl suction line with standard weighted polypropylene strainer. Includes tubing coupler.	\$80.75	\$161.50
G	2	60-5304-584	SPA 584. Modification to 6712FR for addition of Anchor Lugs. An anchor bracket is added to each corner of the refrigerator, 2 brackets per side, to allow the refrigerator to be attached to the floor.	\$168.00	\$336.00

FOB: Lincoln, NE  
 Terms: Net 30 Days  
 Delivery: 4 Weeks  
 Freight: Included in price  
 Validity: 30 Days

**Proudly Represented by**  
**Advance Instruments Inc.**

Prepared by: *Mike Minter*

Mobile: 412-580-2873

E-Mail: [mike@advanceinstruments.com](mailto:mike@advanceinstruments.com)



**Quotation Number**  
 (Please Refer To This Number When Ordering)  
**WT04-MM110504-DNR211168**

Item	Qty	Model No.	Description	Unit Price	Total
H	1	PONOD-OO-OPTOD/7	ODEON® Open One Hand-Held Meter, with Carrying Case and Accessories, and OPTOD® Dissolved Oxygen Probe and 7 m cable	\$1,893.00	\$1,893.00
I	1	PON-OPTOD-N7	OPTOD Digital Probe - 7 m cable	\$856.00	\$856.00
J	2	PONCPC-PHEHT-N7	pH/ORP/T Digital Adapter, requires pH sensor cartridge, with 7 m cable	\$571.00	\$1,142.00
K	2	PONCAR-PHEHT	pH/ORP/T Sensor Cartridge	\$258.00	\$516.00
L	2	PON-PODN-CABY1	Adapter "Y" Cable- (2) Ponsel Digital Sensors to ISCO 6712	\$452.00	\$904.00
M	1	Freight			\$460.00
N	1	Start Up	One day on site		\$720.00
				<b>TOTAL</b>	<b>\$21,826.70</b>

#### NOTES

1. No exceptions taken.
2. Notes regarding pH and Dissolved O2 probes:
  - a. Teledyne Isco 6712FR has a SDI-12 input port. SDI-12 is a communications protocol developed for the US Geological Survey.
  - b. For analytical sensors, we use SDI-12 compatible probes from a variety of vendors. Based upon the requirements of this bid, we chose to supply probes from Ponsel, a company with 50 years of experience making analytical sensors.
  - c. These probes have been tested by Teledyne Isco and are fully compatible with model 6712FR.

FOB: Lincoln, NE  
 Terms: Net 30 Days  
 Delivery: 4 Weeks  
 Freight: Included in price  
 Validity: 30 Days

*Proudly Represented by*  
**Advance Instruments Inc.**

Prepared by: *Mike Minter*

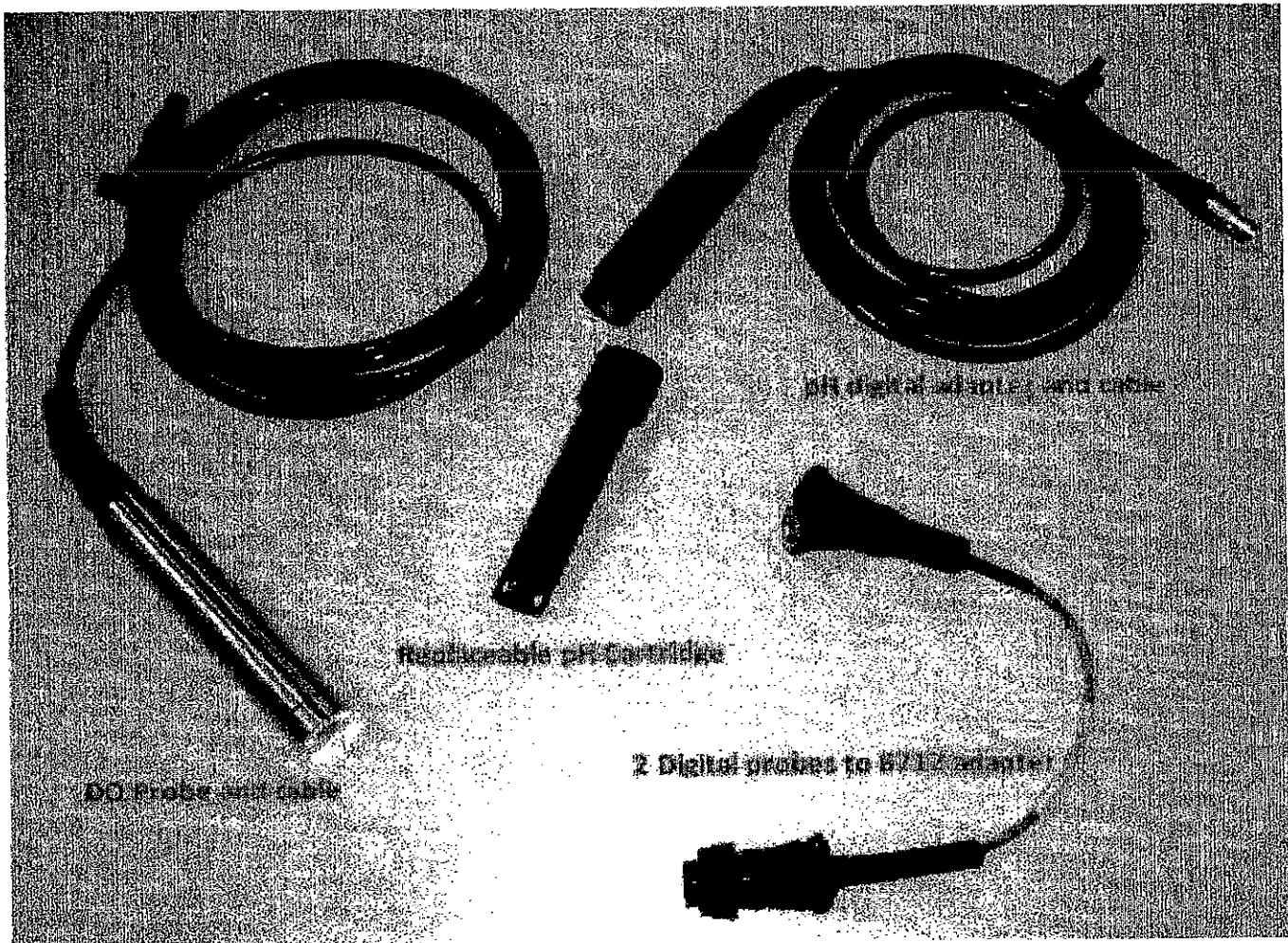
Mobile: 412-580-2873

E-Mail: mike@advanceinstruments.com



**Quotation Number**  
 (Please Refer To This Number When Ordering)  
**WT04-MM110504-DNR211168**

- d. The digital probes require a hand held device called ODEON for calibration. This device can interface with any probe Ponsel makes, including pH, DO, Conductivity, and Turbidity. If additional probes are ordered, the ODEON could be used elsewhere in the Hatchery.
- i. Item H is the ODEON kit, with carrying case AND 1 optical dissolved oxygen sensor.
  - ii. Item I is the 2<sup>nd</sup> dissolved O<sub>2</sub> probe
  - iii. Item J is the re-useable digital pH body.
  - iv. Item k is the pH electrode itself. This is the part that is replaced.



FOB: Lincoln, NE  
 Terms: Net 30 Days  
 Delivery: 4 Weeks  
 Freight: Included in price  
 Validity: 30 Days

*Proudly Represented by*  
**Advance Instruments Inc.**

Prepared by: *Mike Minter*

Mobile: 412-580-2873

E-Mail: [mike@advanceinstruments.com](mailto:mike@advanceinstruments.com)

## Isco 6712FR Fiberglass Refrigerated Sampler

The 6712FR is a sequential or composite refrigerated sampler designed for indoor or outdoor applications where rugged, corrosion-resistant construction is required. The extensive range of programming modes lets you select the most suitable routine for your application. Programming is fast and simple, with on-line help just a key stroke away.

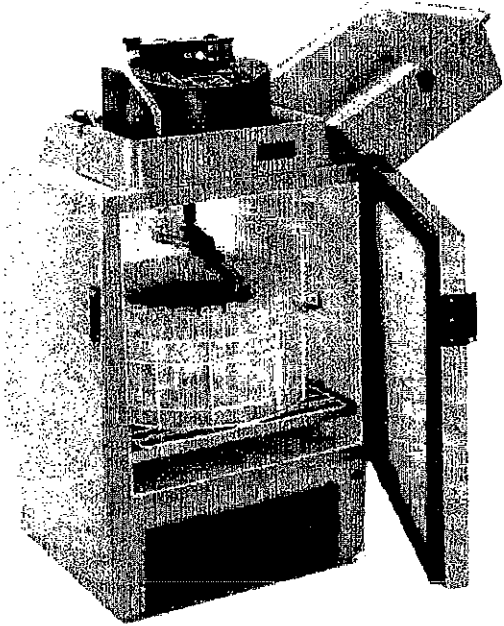
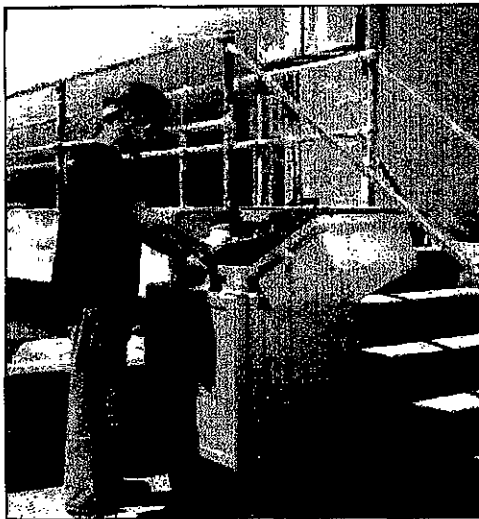
The environmentally-sealed 6712 controller delivers maximum accuracy and easily handles all of your sampling applications, including:

- ◆ 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.

### *Factory installed options*

An optional built-in telephone modem lets you change programs and download data remotely, from a touch-tone phone. It also has dial-out alarm features.



For automatic documentation of sample storage temperature, specify the 6712FR with optional temperature sensor. With this thermally ballasted sensor, the 6712 controller can log compartment temperatures at programmable intervals with 0.1°C precision.

### *Versatile, Tough, and Reliable*

Isco FR samplers feature a corrosion-proof refrigerator cabinet molded from polyester resin fiberglass and supported by a stainless steel frame. A UV-resistant gel coat provides a smooth, non-porous finish for added protection and easy cleaning.

The 6712FR uses thick, foamed-in-place insulation to keep samples preserved at the EPA-recommended 39°F (4°C). An automatically controlled, built-in heater ensures that samples won't freeze, even when ambient temperatures drop to -20°F (-29°C). Coolant is environmentally safe R134a. Durable powder-coated epoxy, phenolic paint, and polyester tubing, protect refrigeration components against corrosion.

*The 6712FR provides long service life in corrosive environments, and can be used outdoors without an enclosure.*

## Specifications

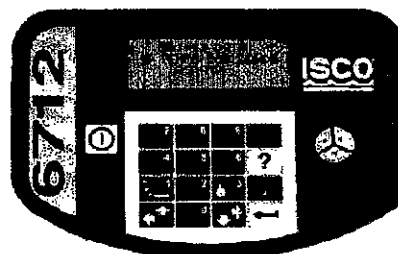
Isco 6712FR	
Size (HxWxD):	49.3 x 26 x 26 inches (125 x 66 x 66 cm)
Weight:	Dry, 160 lbs (73 kg)
Bottle configurations:	24 1-liter PP or 350-ml glass 24 ProPak 1-liter disposable sample bags 12 2.5-liter wedge PE 8 2-liter PE or 1.8-liter glass. 2 2-gallon (7.5-liter) PE or 2.5-gallon (9.4-liter) glass 1 2.5-gallon (9.4 liter) PE or glass 1 4-gallon (15-liter) PE 1 5.5-gallon (21-liter) PE or 5 gallon (19 liter) glass
Refrigerator Body	Fiberglass reinforced plastic with UV-resistant gel coat
Power Requirements:	120 VAC, 60 Hz; or 240 VAC, 50 Hz (specify)
Pump	
Intake suction tubing:	
Length	3 to 99 feet (1 to 30 m)
Material	Vinyl or Teflon
Inside dimension	3/8 inch (1 cm)
Pump tubing life:	Typically 1,000,000 pump counts
Maximum lift:	28 feet (8.5 m)
Typical Repeatability	±5 ml or ±5% of the average volume in a set
Typical line velocity at Head height: of	
3 ft. (0.9 m)	3.0 ft./s (0.91 m/s)
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.

Controller	
Weight:	13 lbs. (5.9 kg)
Size (HxWxD)	10.3 x 12.5 x 10 inches (26 x 31.7 x 25.4 cm)
Operational temperature:	32° to 120°F (0° to 49°C)
Enclosure rating:	NEMA 4X, 6 (IP67)
Program memory:	Non-volatile ROM
Flow meter signal input:	5 to 15 volt DC pulse or 25 millisecond isolated contact closure.
Number of composite samples:	Programmable from 1 to 999 samples.
Clock Accuracy:	1 minute per month, typical, for real time clock
Software	
Sample frequency:	1 minute to 89 hours 59 minutes, in 1 minute increments. Non-uniform times in minutes or clock times 1 to 9,999 flow pulses
Sampling modes:	Uniform time, non-uniform time, flow, random interval event. (Flow mode is controlled by external flow meter pulses.)
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:	5 sampling programs
Sampling Stop/Resume:	Up to 24 real time/date sample stop/resume commands
Controller diagnostics:	Tests for RAM, ROM, pump, display, and distributor

## Ordering Information

*Note: Bottle configuration, suction line, and strainer must be ordered separately. Many options and accessories are available for 6712 Samplers; see separate literature for 700 Series Modules and other components to expand your monitoring capabilities.*

Description	Part No.
6712FR Refrigerated Sampler, 120VAC 60Hz Includes controller, distributor arm, instruction manual, pocket guide.	68-6710-072
6712FR Refrigerated Sampler, 230VAC 50Hz includes controller, distribution arm instruction manual, pocket guide.	68-6710-073
6712FR with temperature logging, 120VAC 60Hz As above, with internal temperature sensor	68-6710-144
6712FR with temperature logging, 230VAC 50Hz As above, with internal temperature sensor	68-6710-145



*The 6712 Controller is also an SDI-12 data logger, and has many optional capabilities. Please contact Isco or your Isco distributor for more information.*

**ISCO**<sup>®</sup>  
Water is life. Protect it.

### Teledyne Isco, Inc.

4200 Superior Street  
Lincoln NE 68504 USA  
Phone: (402) 464-0231  
USA and Canada: (800) 228-4373  
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## 6712 Series



### Versatile Programming

Isco 6712 Standard and Enhanced program modes allow quick efficient setup for virtually any application:

- ❖ Stormwater monitoring
- ❖ CSO and SSO monitoring
- ❖ Permit compliance
- ❖ Pretreatment compliance
- ❖ Surface water monitoring

And with the 6712, on-line programming help is just a keystroke away.

### Standard Program Mode

Quickly select the desired parameters and sampling sequence from the simple step-by-step menu.

Choose:

- ❖ When to start
- ❖ Sample distribution
- ❖ Volume to collect
- ❖ Time- or flow-pacing

For continuous sampling, just replace filled bottles with empty ones.

### Enhanced Program Mode

Easily enter complex programs for unique applications. Actuate via Isco plug-in modules, rain gauges, or other external devices.

Available routines include:

- ❖ Pause and resume for intermittent discharge flow monitoring
- ❖ Sampler pacing by time, non-uniform time, flow, or external event
- ❖ Time-paced or flow-weighted sample collection
- ❖ Two-part programming to reserve a designated bottle group for event-triggered samples or stormwater sampling

### Integrated Water Monitoring

Isco 6712 Samplers feature "Plug-and-Play" connection for SDI-12 compatible devices, including sondes and many other measuring devices from leading manufacturers. Use inputs from up to ten separate devices for flexibility in logging data and triggering sample collection.

### Data Logging

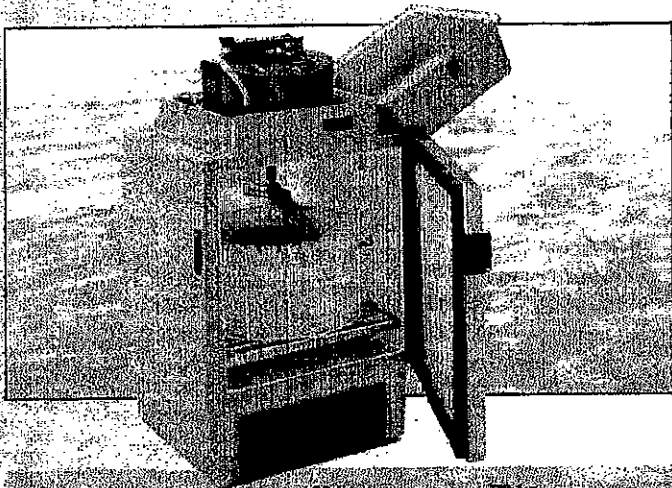
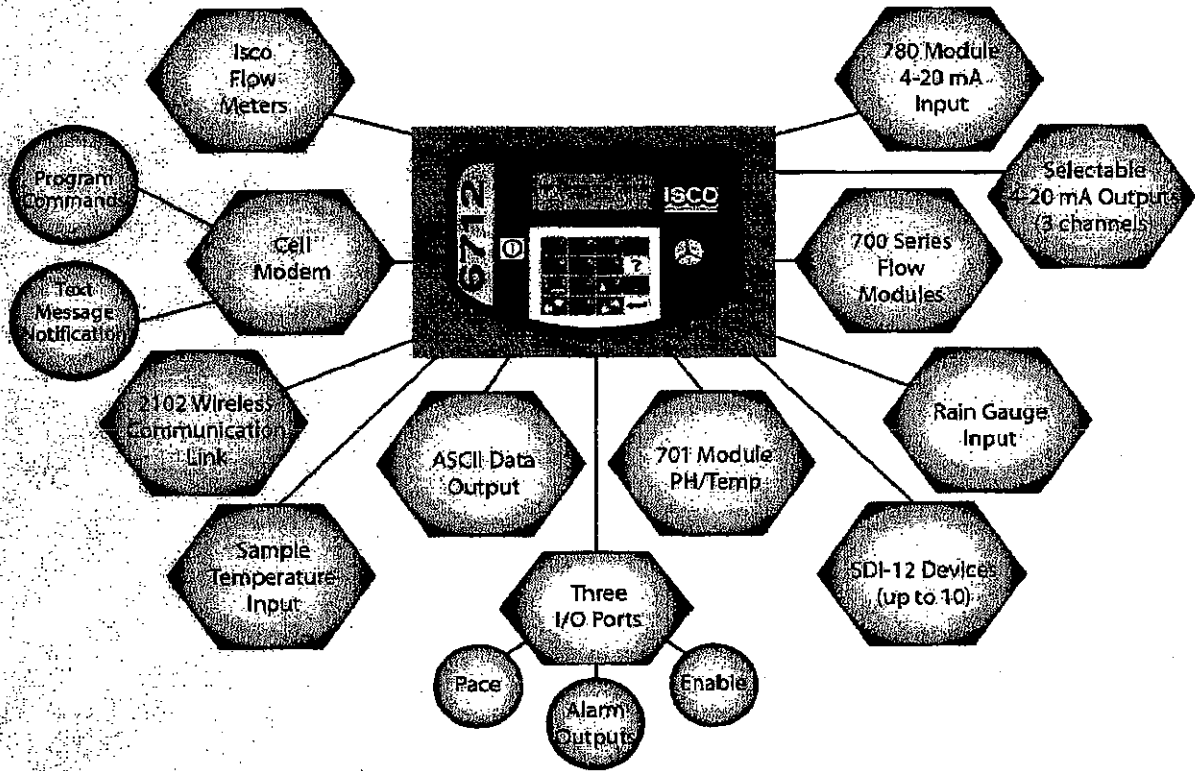
The 6712 functions as an SDI-12 data logger and connects to any sensor that fully implements the protocol standard. In addition, Isco has defined extended commands (which several sensor manufacturers have implemented) for ease of programming. Data are identified and logged by their specific type. Plug-in module and rain gauge data are also stored for later retrieval.

Get integrated measurement and reporting capabilities for:

- ❖ TMDL monitoring
- ❖ Stormwater runoff
- ❖ Rivers, lakes, and estuaries
- ❖ Non-point source pollution
- ❖ Combined sewer overflow
- ❖ Wastewater effluent
- ❖ Industrial enforcement monitoring

6712 Series

Get the advantages of "Smart Monitoring" with these 6712 capabilities.



### 6712FR Stationary

You get proven protection from exposure to hostile environments – indoors or out. The exterior is custom-molded from polyester resin fiberglass. UV-resistant gel coat provides a smooth finish for easy cleaning.

An automatically controlled, built-in heater, prevents sample freezing down to -24° F (-31° C). A solid-state thermostat and three temperature sensors monitor interior and ambient air as well as the evaporator plate for absolute temperature control. Optional temperature logging displays real-time temperature and stores periodic readings for later retrieval.

Thick, foamed-in-place insulation guarantees properly preserved samples and frost-free operation. The rugged stainless steel framework and refrigeration components are protected by polyester tubing, phenolic paint, or polyester powder coating.

An optional controller heater can be added to insure uninterrupted operation down to -20° F (-29° C).

Weight (Dry)	160 lbs	73 kg
Dimensions (H x W x D)	48.3 x 26 x 26 in	125 x 66 x 66 cm
Operating Temperature	32° to 120° F	0° to 49° C
Controller Rating	NEMA 4X, 6	IP67

For complete information and specifications, request Data Sheet #1-1170.



## Isco 710 Ultrasonic Flow Module

### *Uses non-contacting sensor*

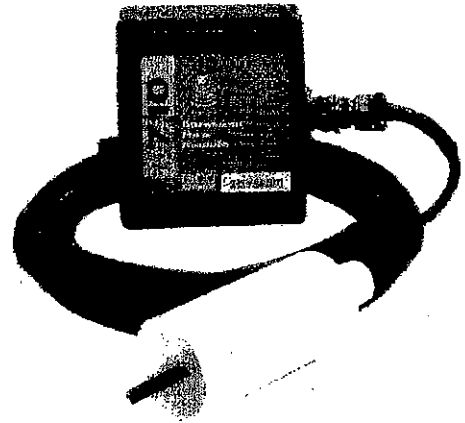
Plug in a 710 Flow Module and turn your 6700 Series or Avalanche® Sampler into a combination sampler and flow meter.

The Ultrasonic sensor is mounted above the flow stream, and it transmits a sound pulse that is reflected by the surface of the flow stream. The elapsed time between pulse and echo determines the level of liquid in the channel. The liquid level is then converted into flow rate by the sampler controller. A built-in temperature probe in the sensor automatically compensates for changes in air temperature to ensure measurement accuracy.

Because its sensor does not contact the liquid, the 710 is easy to install and gives you long-term dependability with no scheduled maintenance. The 710 is often the best choice for flow streams with corrosive chemicals or high concentrations of grease, suspended solids, or silt.

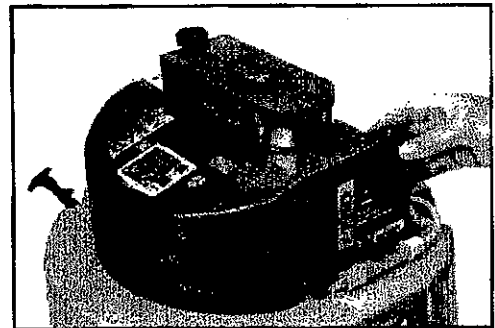
### *Applications*

- ◆ Flow and level measurement in streams containing harsh chemicals, grease, or suspended solids
- ◆ 6712 or Avalanche sampler triggering based on level or flow
- ◆ Flow-proportioned sample collection
- ◆ Treatment capacity analysis
- ◆ Stormwater monitoring
- ◆ Combined sewer overflow studies
- ◆ Long-term river and stream gauging



### *Standard Features*

- ◆ Non-contacting ultrasonic sensor is unaffected by flow stream composition
- ◆ Built-in flow conversions for most applications, including weirs and flumes, Manning formula, data points, or equations for special situations
- ◆ During the program's operation, current flow and level values are viewable on the sampler's LCD display
- ◆ All level data stored in the sampler is available for later retrieval, reporting, and graphing using Isco Flowlink® software



*Simply plug in one of the environmentally-sealed modules to expand monitoring capabilities. They can easily be added or changed in the field.*

## Specifications

710 Module							
Size (H x W x D)	4.9 x 5.7 x 2.0 in	12.4 x 14.5 x 5.1 cm	Range (distance from sensor to liquid)	Minimum	1 ft	0.3 m	
Weight	1.1 lbs	0.5 kg					
Material	Polystyrene		Span	0 to 10 ft		0 to 3.0 m	
Enclosure	NEMA 4X, 6	IP67					
Power (provided by 6700 Series Sampler)	9 to 14V DC		Level Measurement Accuracy At 72°F (22°C), still air	Head Change*	Maximum Error	Head Change*	Maximum Error
Program Memory	Non-volatile, programmable flash; can be updated via Interrogator port on 6700 Series Sampler using a PC						
Level Measurement Data Storage Interval (programmable through 6700 Series Sampler)	1, 2, 5, 10, 15, or 30 minutes		1.0 to 10 ft	±0.04 ft	0.30 to 3.0 m	±0.012 m	
Operating Temperature	32° to 120° F	0° to 49° C	Temperature Coefficient Maximum error over compensated temperature range (per degree of temperature change)	±0.000047 x D per °F		±0.000085 x D per °C	
Storage Temperature	0° to 140° F	-18° to 60° C		Where D is the distance from the transducer to the liquid surface			
Ultrasonic Sensor			Operating Temperature	32° to 120° F	0° to 49° C		
Length	6.0 in	15.2 cm	Compensated Temperature	32° to 120° F	0° to 49° C		
Diameter	2.3 in	5.7 cm	Materials	Sensor Delrin® with Teflon®-coated transducer and Teflon-coated stainless steel temperature sensor			
Cable Length	25 ft	7.6 m					
Cable Diameter	0.3 in	0.8 cm	Cable	Polyvinyl chloride (PVC) jacket			
Weight (including cable)	2.1 lbs	1.0 kg	*Actual change in vertical distance between the ultrasonic sensor and liquid surface. © E.I. DuPont de Nemours Co.				
Enclosure	NEMA 4X, 6	IP67					

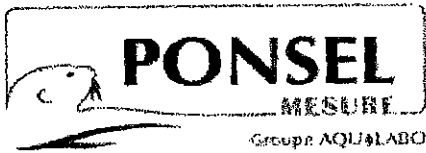
## Ordering Information

Description	Part Number
710 Ultrasonic Flow Module	68-6700-049
710 Accessories	
Sensor Cable Clamp	60-3004-129
Sensor Cable Straightener	60-3213-061
Sensor Mounting Bracket	60-2443-092
Sensor Sunshade	60-3004-142
Sensor Floor Mount	60-3004-117
Calibration Target	60-3004-143



### Teledyne Isco, Inc.

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## Analytical Sensor Accessories for Teledyne Isco Instruments



PONSEL manufactures an innovative range of **digital electrochemical sensors** to measure water parameters. These all-digital, "plug and play" sensors are compatible with any device that accepts RS485 MODBUS or SDI-12 communications protocols.

The ODEON hand-held meter is required to calibrate digital probes, see page 3.

Probes	pH/ORP & Temperature		Oxygen & Temperature	Conductivity & Temperature	Turbidity & Temperature
Applications	Laboratory and field conditions				
Compatibility	Wastewater, drinking water, seawater, rivers, natural water.....				
Sensors	pH, ORP, Temperature		ODOT, Temperature	Conductivity, Salinity, temperature	Turbidity, Temperature
Dimension (D x L)	23 x 159 mm		25 x 146 mm	27 x 177 mm	27 x 170 mm
Standard Cable length	3 m		3 m	3 m	3 m
Weight with 3 m cable	350 g		450 g	350g	300 g
Protection Class	IP68		IP68	IP68	IP68
Operate temperature	-10°C – 50°C		-10°C – 50°C	-10°C – 50°C	-10°C – 50°C
Temperature sensor	CTN		CTN	CTN	CTN
Interface communication	Modbus RS 485		Modbus RS 485	Modbus RS 485	Modbus RS 485
Material	PVC		Inox 316 L	PVC	PVC PMMA
Spare	pH/ORP Cartridge		DODisk®	-	-
Warranty	2 years (1 year for the cartridge)		2 years (1 year for the DODisk)	2 years	2 years
parameters	pH	ORP	Dissolved Oxygen	Conductivity Salinity	Turbidity
Range	0.00 – 14.00 pH	-1000.0 mV +1000.0 mV	0.00 – 20.00 mg/L 0 – 200% SAT	4 ranges 0-200.0 µS/cm 0 –2000 µS/cm 0.00 –20.00 mS/cm 0.0 –200.0 mS/cm	0 - 4000 NTU 4 ranges : 0.0 – 50.0 NTU 0.0 – 200.0 NTU 0 – 1000 NTU 0 – 4000 NTU
Scale switch	-	-	-	Manual/Automatic	Manual/Automatic
Resolution	0.01 pH	0.1 mV	0.01 mg/L 1%SAT	0.01 to 1 µmS/cm	0.1 to 1 NTU
Accuracy	± 0.05 pH	± 0.1 mV	± 0.1 %	± 1 % of the full scale	± 1 % of the full scale
Compensation	Temperature	-	Pressure, temp. salinity (Mode : Off, Manual, Automatic)	Temperature	Temperature
Measurement	plastized PONSEL "PLASTOGEL"® electrolyte Ag/AgCl reference	Platinum electrode Ag/AgCl reference	PONSEL ODOT® optical luminescence technology ASTM D888 – 05 Compliance	C4E Technology 4 electrodes (2 platinum and 2 graphite)	IR 90° technology ISO 7027 compliance
Response time 190 Full range : 0 – 100%	< 5 s	< 5 s	< 1 s	< 5 s	< 5 s



## Analytical Sensor Accessories for Teledyne Isco Instruments

**Ponsel Digital Sensors**

**Up to 4 Sensors  
4000 I/O Box**

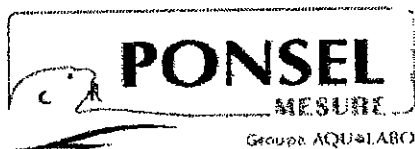
**Model 6712 and  
Avalanche**

**SDI-12  
Digital Output**

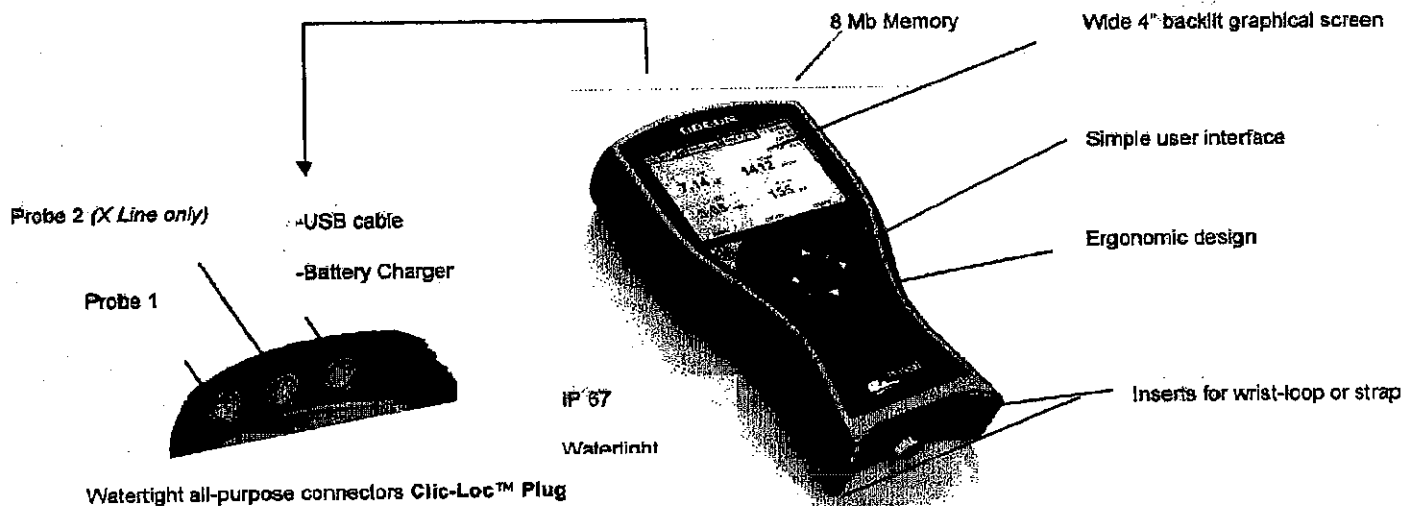
**1 or 2 Sensor  
Cable Adapter**

**Model 2105**

6712 and AVALANCHE SAMPLERS		2105 INTERFACE MODULE	
MODEL CODE	DESCRIPTION	MODEL CODE	DESCRIPTION
PON-PODN-CAB1	SINGLE PROBE DIGITAL SENSOR CABLE 1 OUTPUT ISCO 6712FR/ AVALANCHE	PON-PODN-CAB2	SINGLE PROBE DIGITAL SENSOR CABLE 1 OUTPUT ISCO MODULE 2105
PON-PODN-CABY1	"Y" CABLE, (2) DIGITAL SENSOR CABLE 1 OUTPUT ISCO 6712FR/ AVALANCHE	PON-PODN-CABY2	"Y" CABLE, (2) DIGITAL SENSOR CABLE 1 OUTPUT ISCO MODULE 2105
PON-BJCN-020	4000 SERIES 2 PROBE I/O BOX 1 OUTPUT ISCO 6712FR/ AVALANCHE	PON-BJCN-021	4000 SERIES 4 PROBE I/O BOX 1 OUTPUT ISCO MODULE 2105
PON-BJCN-040	4000 SERIES 4 PROBE I/O BOX 1 OUTPUT TO ISCO 6712FR/ AVALANCHE	PON-BJCN-041	4000 SERIES 4 PROBE I/O BOX 1 OUTPUT ISCO MODULE 2105



## ODEON<sup>®</sup> METERS *Classic Line, One Line and X Line*



- **ALWAYS READY TO MEASURE:** *Digital plug and play probes*
- **RELIABLE and ACCURATE:** *Sensor Auto diagnostic, status always displayed, GLP compliance*
- **SIMPLICITY:** *4" display and intuitive menus*
- **HIGH PERFORMANCE:** *Single / Multiparameter - 8 Mo Memory (100,000 data points)*
- **FIELD TOUGH:** *IP67 Water-Tight*
- **INCLUDES WINTEK Viewer PC Software and USB cable**

Models	Classic Line				Open Line	
	pH/ORP/T	Oxygen / T	Conductivity	Turbidity 0-4000 NTU	One	X
Probe compatibility	X				X	X
	ODOT	X			X	X
	Conductivity		X		X	X
	Turbidity			X	X	X
Probe Channels	1				2	
Digital Technology	CLASSIC Can be "unlocked" to OPEN Technology				OPEN	
Memory	100,000 points (with sample ID, User ID, date and time..)					
Data Management	GLP compliance					
ID	Samples, Campaigns, Users : Alphanumeric, 10 words max, 20 users max					
Reading/Recording	3 modes : Manual, interval, continuous					
Sensor Status Indicator	Yes					
Autodiagnostic	Yes					
Display	Large 4" backlit graphical LCD display. Automatic switch to economy mode. With date, time, user and sample user, °C, status, pressure. Simultaneous display of 1 to 7 parameters (max)					
Power Supply	4 AA batteries or rechargeable batteries (battery charger needed)					
Battery Life	200 hours with standard batteries (in economy mode)					
Interfaces	-USB -RS 485 interface to probes (1 or 2) -External 12 V battery -Charger					
Enclosure	PC/ABS					
Size - Weight	196 x 121x 46 mm - 400 g (7.71 x 4.76 x 1.81 in - 0.88 lbs)					
Protection	IP67, Watertight					
Operating Temperature	- 10 to + 60°C (14 to 140°F)					
Storage Temperature	- 25 to + 65°C (-13 to 140°F)					
Operating Humidity	> 80%					
Warranty	2 years					