

Flow-through Water Analysis

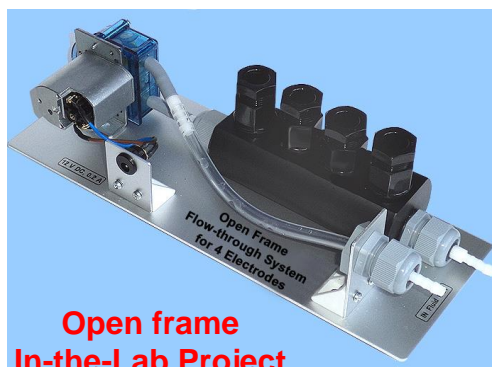
Using ELIT robust modular Flow-through Cell and multi-parameter Monitoring System

Applications

- Hydrogeology - Groundwater
- Environmental – Surface water
- Mining - Mineral Exploration
- Aquaculture - Fish Farming
- Control of biological Filtration and Recirculation
- Pollution Control – Monitoring of Wastewater Outlets
- Industrial Process Control

Easy Installation

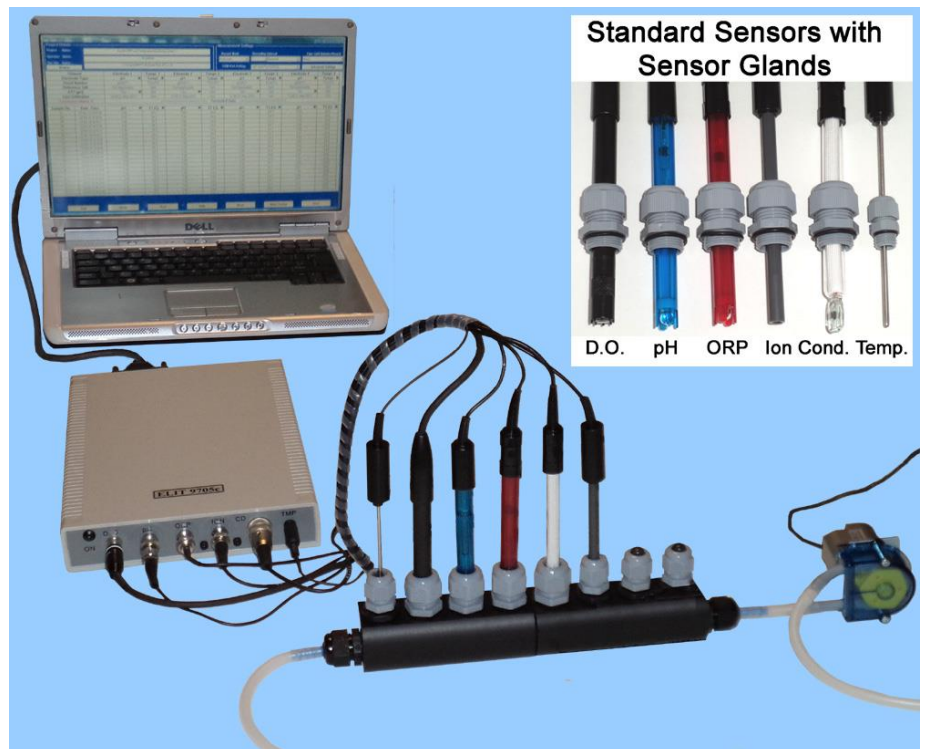
- Benchtop / Rack Mountable
 - On-Site
 - In-the-Lab



Compact and Portable Design



Flow-through Cell with 1xpH, 3x Ion selective Electrodes and 4-channel Monitor



6-channel System with two joined Flow-through Cells (add extra cell for up to 6 extra ions)

System Features:

- Computer based multi-sensor Monitoring System for 1 to 12 electrochemical Parameters
- Continuous Monitoring with Real-time data Display and Storage
- Easy to use software and text (.csv) format facilitates data export for further processing and study
- Sample-intake through 5mm diameter tube (up to 20 meter long) enables simple/flexible installation
- Cost effective system using customer-selected standard sensors and Windows' PC or lap-top
- System comes complete with power adapters, tubing and cables

Channel	1	2	3	4	5	6
Electrode Type	Galvanic	pH	ORP	Ca	Cond	NTC
Serial Number	D-101	P-102	R-103	SN54321	C-105	T-106
ATC (pH)	N/A	Yes	N/A	N/A	N/A	N/A
Last Calibration	12:00 10.Sep.2014	12:00 10.Sep.2014	12:00 10.Sep.2014	12:00 10.Sep.2014	12:00 10.Sep.2014	N/A

View Electrode (mV)		Recorded Data										
No.	Time	%	ppm	pH	ORP (mV)	ppm	mmol/L	µS	ppt	°C	°F	
37	20 Oct 14 22:19:37	79.9	7.11	7.00	470.4	89.1	2.5	1071	.750	16.6	61.8	
36	20 Oct 14 22:18:59	67.3	5.99	7.00	466.3	89.1	2.5	1071	.750	16.5	61.7	
35	20 Oct 14 22:17:59	80.8	7.19	8.16	470.1	89.1	2.5	1071	.750	16.5	61.6	
34	20 Oct 14 22:16:58	81.0	7.21	7.00	475.3	89.9	2.5	1071	.750	16.4	61.5	
33	20 Oct 14 22:15:59	82.7	7.36	7.00	479.7	120.4	3.4	973	.682	16.3	61.4	
32	20 Oct 14 22:14:59	82.8	7.37	7.00	482.9	120.4	3.4	974	.682	16.3	61.3	
31	20 Oct 14 22:13:59	83.0	7.39	7.00	487.0	119.4	3.4	974	.682	16.2	61.1	

System Description

- Flow-through System for monitoring 1 -12 electrochemical Parameters:
Select any combination of pH, ORP, Ion selective electrodes, Temperature, Dissolved Oxygen Conductivity
- The main components of the system are:
 - Flow-through Cell - each one can hold up to 4 Sensors
 - Peristaltic Pump
 - Sensor Monitor/Meter (computer Interface)
 - Sensor Electrodes (purchased separately)
- The Peristaltic Pump suction allows sampling from up to 30 m distance and 6 m lower level
- If the fluid can be taken from a relative clear area of a sink-bed or sink-tank, no filter is required.
- Otherwise an in-line filter can be installed
- A re-circulating in-situ calibration can be performed. A 250 mL Calibration beaker is provided.
- The system comes complete with hardware, software, power adapters, tubing, cables and protective sleeving.
- The system runs on any computer with Microsoft Windows' operating system (XP, Vista, Win 7 or Win 8/8.1) which must be supplied by the customer.

System Benefits

- The controlled flow conditions will result in more reliable results because the electrodes remain immersed throughout the calibration and measurement procedure. This minimises errors due to variable liquid-junction potentials which occur whenever a reference electrode is immersed in a new solution.
- Newly developed sensor electronics increase the accuracy and ease of operation.
- The system uses cost-effective standard sensors, which can be easily changed

System Arrangement and Installation

- In the lab (field or permanent) the apparatus can be free standing, "Open Frame" or rack-mounted.
- For field or industrial use, all components can be housed in a glass fibre reinforced weather-proof, lockable, wall-mountable cabinet 300 mm wide, 220 mm deep and 400 mm high.
The measuring system is permanently connected to the computer, which can be located in any suitable place (control room, office, container, vehicle, etc) up to 20m from the sensors. Distance from the cabinet to the point where the fluid inlet is located (sample measuring point) can be up to 30m)
- When ordering the system, the following information is required:
 - type and quantity of sensors and how many Flow-through Cells (one can hold up to 4 Sensors)
 - is a protective cabinet or Open Frame mounting required ?

For more information or to get a quotation, please contact Nico2000 Ltd for a discussion of exact requirements.

