



INSTRUMENTS UNIVERSAL

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Automatic Interval Sampler *Model IU 801 APD GPRS*

The unit consists of Real time base with micro controller, reliable power supply, drive circuitry, mains and special low speed motor and a peristaltic pump housed in a sturdy industrial weather proof powder coated cabinet. Pump is design for self-priming from the full depth specified and is manufactured with out seals, gears and valves to minimize maintenance. Maintenance is nearly nil except changing peristaltic tube, a small piece of flexible rubber tube, which can be changed within a minute even by an unskilled labor when, required. Motor and pump are low speed with prefabricated ZZ type bearings for long life. Pump can run dry for hours without any risk to the equipment. Pump is fabricated from polypropylene, which has very high resistance to almost all chemicals.

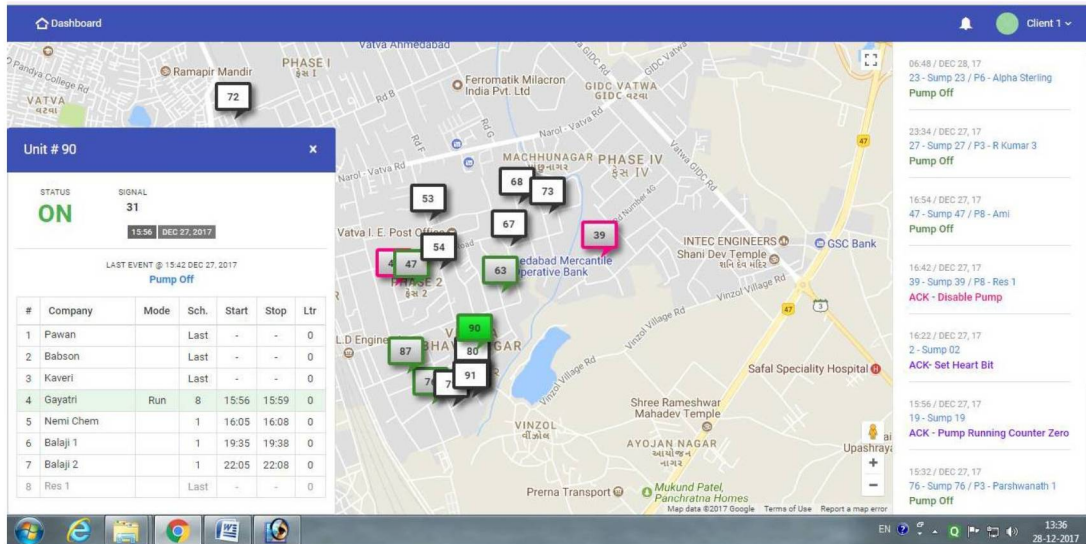


A special highly sophisticated micro controller card and associated **Bluetooth programming software** and **GPRS web based Monitoring and control software** gives excellent programming flexibility for timing, volume of sample, samples per bottle, no of bottles (1 to 24) , sampling cycle time span, uniform, non-uniform and flow proportional (optionally) mode sampling with error code display for invalid parameter entry. The unit can be used for discrete as well as composite application with appropriate parameter settings.

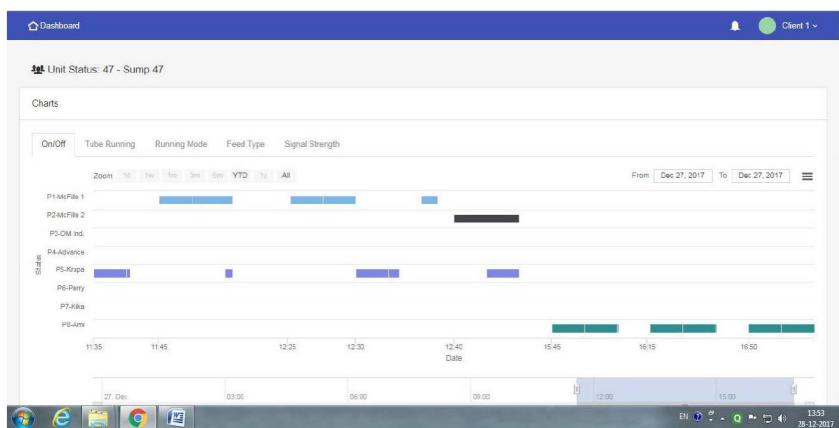
The unit consists of standard 4 key keyboard for programming parameters and 4x20 LCD Display. The Real Time Clock along with 10 years battery back up will avoid frequent reprogramming of time even if power fails for long time. Sample is collected in individual bottle. Total 1 to 480 samples can be stored in 24 bottles. 1 to 24 Samples / bottle will give you multiple samples in one bottle and enhance total period of 24 hours discrete samples.

A special feature is incorporated in the sampler is that although if power fails during the sampling period then whenever power resume micro controller will monitor and calculate the power fail duration and skip necessary sample which was not taken during power off condition.

One can also monitor and control pumps from remote location with password protected GPRS based software. We can also locket the Samplers on the field on google map for more convenience of maintenance.



(Instruments visible on Google map)



Peristaltic pump is designed to collect samples from the depth of 25 feet without priming. Maintenance is nearly nil except changing peristaltic tube, a small piece of flexible rubber

tube, which can be changed within a minute even by an unskilled person when required. Pump can run dry for hours without any risk to the equipment. Pump is fabricated from aluminum, rotor from stainless steel and rollers from poly propylene which has high resistance to almost all chemicals.

Programmable post and pre automatic purging ensures totally fresh sample every time and avoid collection of dead sample trapped in suction tube. This also helps in flushing of suction tube after every sample to avoid choking problem of suction tube

The sampler has alternative application for monitoring water quality for detailed analysis of individual samples. The Unit is supplied with a guarantee for one year along with list of spares, circuit diagram and trouble-shooting chart for easy self-serviceability. In short, IU 802 APD GPRS is latest and most advanced substitute for similar samplers having more flexibility for custom programming, advance facility and reliability at nearly half the price compared to imported unit. Peristaltic pump is only used for sampling purpose (Instruments Universal, American Sigma, Pharmacia Fine Sweden, Watson Marlow, Cole Palmer, Master flex, Instech Laboratories etc.)



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MODEL: IU 802 APD GPRS

Sampler		Controller	
Depth	400 mm. approx.	Display	4 line LCD display with backlight
Breadth	440 mm approx.	Program Memory	Flash E2PROM
Height	720 mm approx.	Parameter Storing Memory	Serial E2PROM
Weight	less then 50 Kg. approx	Max. No. of Programmable samples	48 / 24 hrs.
Material	MS Power Coated	Real Time Clock Accuracy	± 15 Seconds / Month
Power	230v AC Operated	Operational Temperature	5 to 60 C
Pump		Software	
Pump Type	Peristaltic	Sample Frequency Selection	User Selectable 1 minute to 99 hr. in 1 minute selection
Pump Material	Poly Propylene	Sampling Mode	Bluetooth, GPRS, Manual
Tubing Size	Od: 8 mm Id:4 mm	Programmable Sample Volumes	1 to 1000 ml
Tubing Type	Silicon Tube	Programmable Samples / Container	1 to 4
Tubing Life	3 months (Depends on type of liquid & suspended solids)	Programmable Sample collection flow rate	10 to 90 ml/min.
Flow Rate	10 to 90 ml/ min.	Controller Diagnostics	Auto Testing of Nv Ram ,E2PROM
Intake Suction Tubing		Programmable Parameters	
Length	25 ft.	[1] Batch Start time	Any time with in 24 hour
Material	HD	[2] Batch Time	1 to 99 hours
Inside Dimension	3 mm	[3] Total Samples Required/Batch	0 to 48 samples
Maximum Suction Lift	28 ft.	[4] Sample Flow Rate	10 ml / min to 90 ml / min.
		[5] Sample Volume	20 ml to 950 ml
		[6] Sample / Container	1 to 4 or as per requirement
VELOCITY		[7] Sampling Mode	Uniform / Non Uniform
.3 to 1 FEET / SECOND		[8] Non Uniform Sampling Time	8 different Real Time to be stored
Refrigeration Systems Optional			
Compartment temperature	4 deg centigrade or as per setting	[9] Pre Purge (seconds)	1 to 99
		[10] Post Purge (seconds)	1 to 99

Dimension are subjects to change to some extend for betterment of products

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