

# Apex Personal Sampling Pumps



## One Pump - All Applications





### Outstanding performance & features

## The Apex, for professional air sampling in all monitoring scenarios

- Extensive flow range from 5 ml to 5 L/min
- Fast 1.5 hour charge via drop in charger
- Superb battery life > 45hrs @ 2 L/min (GFA)
- Large LCD indicating real time flow & volume
- Stable, accurate digital flow control (<±3%)
- Gas Bag outlet for grab sampling
- On board data logging in Pro version
- Duration and scheduled sampling.
- Compliant to NIOSH 0600, EN1232



Drop-in fast charger

### **Applications**

- Personal & area dust / solvent monitoring
- Construction / Demolition sites
- COSHH & OSHA Sampling
- Manufacturing Industries
- Welding fume
- Petrochemical Plants / Offshore
- Indoor air quality monitoring
- Spray booths / Powder coating



Pump with Tedlar gas bag for grab sampling

#### I.S. Certification

Intrinsically safe versions of Apex and Apex Pro are also available to UL and ATEX approvals.

Certification:

**CE** 0539

Eex ia IIB T4

DEMKO 05 ATEX 0439469X

913: Class 1, Groups C,D.

ANSI/UL

(ξx) <sub>II1G</sub>

DEMKO 05 ATEX 0439469X



Pump with low - flow adaptor for vapour sampling



#### Product feature selection

Feature	Apex	Apex Pro	Apex I.S	Apex Pro I.S
Flow Range (ml/min)	5- 5,000	5- 5,000	5- 4,000	5- 4,000
Intelligent fast charging	•	•	•	•
Fast charge time	1hr	1hr	1hr	1hr
Internal digital flow control	•	•	•	•
Flow block / auto restart	•	•	•	•
Duration mode	•	•	•	•
Lockable keypad	•	•	•	•
Dry cell battery option	•	•		
Large LCD display	•	•	•	•
Bag (grab sampling mode)	•	•	•	•
Display of real time flow	•	•	•	•
Full Data logging		•		•

#### Report generation

Pump Manager Sampling Report

**CASELLA≡** 

Client:Engineering Co.

Name:

Location:Belfast

Process Notes:-

Monitoring of Welding Booths

Substances:-

Welding Fume, Colophony

Pump Data:-

Pump:0920102 Run Data:-

ID:SN 0920102

Contract Ref:1788989

Report No:123

Start: 15:08:1601/10/2002 End:15:15:29 01/10/2002 Period:2minutes Set flow rate:2L/min Ave.temperature:25.9°C Sample volume:7.36667Ltrs

01/10/2002 15:08:16 - 15:08:40 0 minutes 24 seconds 2 L/min 255°C 01/10/2002 15:08:46 - 15:09:48 1 minutes 02 seconds 2 L/min 260°C 01/10/2002 15:11:42 - 15:11:52 0 minutes 10 seconds 5 L/min 260°C 01/10/2002 15:08:46 - 15:09:48 1 minutes 02 seconds 2 L/min 260°C

01/10/2002 15:14:43 - 15:14:47 0 minutes 04 seconds 5 L/min 260°C 01/10/2002 15:14:49 - 15:15:29 0 minutes 40 seconds 5 L/min 260°C

Volume sampled:7.36667 Ltrs

Welding Fume mixed with rubber fume

Sample number:12345

Analyte 1: Welding Fume Sample mass: 0.0098mg Concendradion: 133032mg/m<sup>3</sup>

TWA/STEL: 133032mg/m<sup>3</sup>

Pump shut down but restarted following a temporary inlet blockage.

Sampled by: Fred Bloggs Audited by: M Harris Date: 01/01/2006 Date: 01/01/1970

#### Versatile kits

In addition to the pumps, various kits are also available.

A Starter Kit contains: Rotameter and stand. I.O.M sampling head with cassette, tweezers, accessory container, all in a plastic carry case.





A rugged, 5 way kit case is available, housing 5 pumps, a 5 way charger and accessories.

#### Sampling accessories



A full range of sampling accessories include: charcoal & silica gel tubes, Tedlar gas bags, bubblers, impingers, sampling heads and filter media.

## Comprehensive software

Pump Manager is a versatile software package simplifying the management and reporting of sampling data.

- Program pump for time scheduled operation
- Ideal for legislative record keeping
- Full reports generated for audit trails
- Logs: events, voltage, volume, flow rate, date & time
- Direct input of laboratory analysis data
- Automatic calculation of T.W.A and mass concentration
- Export into other word processing packages
- Input of specific employee details

Technical Specification	Apex Standard / Pro	Apex I.S Standard / Pro	
Flow Range	5 - 5,000 ml/ min	5 - 4,000 ml/ min	
Flow Control Accuracy	Digital flow control circuit <±3% for calibrated point	Digital flow control circuit $<\pm 3\%$ for calibrated point	
Inlet pulsation ratio	<10% @ 2.0 L/ min	<10% @ 2.0 L/ min	
Typical Charge time	DT / dt < 3.5 hours	DV / dt <4.5 hours	
	1 hour gives 8 hr operation	1.5 hours gives 8 hrs operation	
Temp Range	Operational: 5 to + 45°C	Operational: 5 to + 45°C	
	Storage: -10° to + 50°C	Storage: -10° to + 50°C	
Data logging	100 Runs	100 Runs	
Battery	4.8V NimH 2.7Ah	4.8V NimH 1.7Ah	
Dimensions	135 x 75 x 43 mm	135 x 75 x 43 mm	
Weight	460g	435g	
Service Interval	2500 hours (typically)	2500 hours (typically)	

Back pressure "H <sub>2</sub> 0, Run Time (hours) (Non IS / I.S)	1 L/ min	2 L/ min	3 L/ min	3.5 L/ min	4 L/ min
25 mm GFA	2" (100/ 51)	3"(45/ 26)	4"(24/ 15)	5"(21/ 11)	5.3"(16/ 2)
37 mm GFA	0.5"(100/ 58)	1.5"(65/ 31)	2"(31/ 17)	2.5"(23/ 13)	2.6"(19/ 12)
25 mm 0.8 μm MCE	6.5"(72/ 31)	11"(24/ 13)	15"(16/ 1)	17"(11/ N/A)	19" (N/A)
25 mm 1.2 μm MCE	4.5"(100/42)	11"(34/ 18)	10"(17/ 11)	11.8"(16/ <1)	12.5"(11/ N/A)
5" Back Pressure Run	33h	20h	13h	11h	3h
Time (I.S)					

Run tests undertaken using Whatman GF/A & Millipore MCE filters

Distributed By

#### **ORDERING INFORMATION**

182000B Apex Standard Sampling Pump	
182063B Apex Pro Sampling Pump	182052B Apex single charger
182150B Apex Standard I.S	182261B Apex I.S single charger
182160B Apex Pro I.S	182108A 5-way charger for Apex & Apex Pro UK
P104104 Apex Starter kit	182109A 5-way charger for Apex & Apex Pro Euro
(Comprising: Plastic carry case with accessories box, 0.3 to 3	182110A 5-way charger for Apex & Apex Pro US
1/m rotameter and stand, I.O.M head with cassette (10ff),	182111A 5-way charger for Apex & Apex Pro Australia
tweezers.)	182264A 5-way charger for IS Apex & IS Apex Pro UK
182091A Pump Manager Software /Interface	182265A 5-way charger for IS Apex & IS Apex Pro Euro
(for Apex Pro versions).	182266A 5-way charger for IS Apex & IS Apex Pro US
	182267A 5-way charger for IS Apex & IS Apex Pro Australia

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