

Selecting the right sampling pump kit

	Easy-VOC	ACTI-VOC	ACTI-VOC PLUS
	MARKES INTERNATIONAL EMPLOY E	MARKES INTERNATIONAL ACTIVOC*	MARKES International ACTIVOC PUST
Sampling type	Quick grab-sampling	Low-flow, time-weighted-average sampling	Fast-flow, time-weighted-average sampling
Power source	None (hand-operated)	Battery	Battery
Flow range	N/A	Constant-flow mode: 20-200 mL/min	Constant-flow mode: 20-500 mL/min
Constant flow mode	N/A	Yes	Yes
Battery lifetime	N/A	Over 8 h	Over 8 h
Charge time	N/A	14-18 h	<3.5 h
Display	N/A	Time	Time, flow, volume and date
Calibration	No requirement	External pump flow calibration with digital flowmeter. No need to calibrate for every tube.	External pump flow calibration with digital flowmeter. No need to calibrate for every tube.
Flow adjustment	N/A	Simple screw-operated flow adjustment	Flow adjustment <i>via</i> keypad interface with digital display
Programmable	N/A	Not programmable	Timer program function
Data-logging	N/A	N/A	Stores sample time, flow, volume and back-pressure
Volume per syringe pull	50 or 100 mL	N/A	N/A
Back-pressure limit	N/A	Up to 25" H ₂ O	Up to 40" H ₂ O
Dimensions	N/A	64 mm (W) × 35 mm (H) × 118 mm (L) 2.50" (W) × 4.63" (H) × 1.38" (L)	109 mm (W) × 61 mm (H) × 61 mm (L) 4.3" (W) × 2.4" (H) × 2.4" (L)
Weight	N/A	340 g	581 g
Approvals	N/A (hand-powered pump)	ATEX-approved, intrinsically safe	ATEX-approved, intrinsically safe
Sorbent tube compatibility	Industry-standard (3½" (L) × ¼" (o.d.)) Any 6 mm o.d. tubes	Industry-standard ($3\frac{1}{2}$ " (L) × $\frac{1}{4}$ " (o.d.)) Any 6 mm o.d. tubes	Industry-standard (3½" (L) × ¼" (o.d.)) Any 6 mm o.d. tubes
Key applications	Environmental monitoring Material emissions Remote locations	 Environmental monitoring Material emissions Personal monitoring Air quality monitoring	Environmental monitoringMaterial emissionsPersonal monitoringAir quality monitoringSVOCs
Overview	The Easy-VOC allows rapid 'grab-sampling' of up to 1000 mL of air/gas directly onto sorbent tubes, without the need for calibrated pumps or mass flow control equipment. It uses aliquots of 50 or 100 mL air to steadily introduce the sample to the tubes, thus reducing risk of analyte breakthrough.	The ACTI-VOC is specifically designed for use with sorbent tubes. It automatically compensates for different impedances whilst in constant-flow mode, meaning you only have to set the flow once, and do not need a flowmeter in the sampling chain. Flow rates are set manually using a screw fitting, and measured using an external flowmeter. The ACTI-VOC fits within the MTS-32.	The ACTI-VOC PLUS has similar capabilities to the ACTI-VOC, but with an increased flow range for fast-flow sampling, making it particularly well-suited for SVOCs. The flow rate is set via a keypad interface and is measured using an external flowmeter. The ACTI-VOC PLUS offers start—stop programmability for unattended sampling.

