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# Sedulitas

PEOPLE | PASSION | PRECISION

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www.sedulitas.co.za

## TROLEX

# AND BREATHE...



# AIR XCD

## REAL-TIME DUST MONITOR



## THE D STANDS FOR DIFFERENT.

### No filters, no pump, no messing around

No filters, no pump, no messing around  
The Air XD has no moving parts.

All you need to maintain it is the Air XD Compliance Kit and a spare 20 minutes, typically once every 6 to 12 months.

It's as simple as that.

Your days of changing filters and expensive pumps are over.

### Monitor all of the dust, all of the time

You don't solve a puzzle with only one or two pieces of the jigsaw, so why monitor for only one or two sizes of dust particulate?

The Air XD simultaneously monitors every dust particulate from 0.35 to 40  $\mu\text{m}$ , continuously and in real time. No more guesswork.

The complete picture delivered with unrivalled accuracy.

### A dust monitor that's not afraid of dust

The open-path Air XD sensing system, combined with our advanced algorithm, means continued accuracy – whether it's low dust-volume clean air environments or heavy dust loads and complex mixtures.

Air XD stays operational in dust concentrations of 1500 mg/m – that's typically 10 times as much as our competitors.

### Save lives, save money

Reduce maintenance and workforce costs. Deploy PPE, dust control and suppression in intelligent ways.

Identify process leakages and inefficiency. Reduce health and safety incidences and protect your business from litigation.

The Air XD range is there to save lives, save money and improve efficiency.

Get real-time, accurate and comprehensive information that gives you absolute control over your process and facility.

# WHAT'S THE DIFFERENCE?



- 1** > Open-path brushed stainless steel duct assembly with anti-static coating minimises dust settlement and allows free flow of air through the unit, enabling the Air XD to function in heavy dust loads.
- 2** > No pump, pre-filtering or internal filter so the Air XD detects the real content of particulates in the space, giving accurate and reliable readings as dust concentrations change.
- 3** > Multi-parameter detection points and a wide scatter-zone chamber allows the Air XD to monitor every particle flowing through the unit – giving comprehensive full spectrum readings at all times.
- 4** > Advanced algorithm processes 10,000 particulates per second providing real time highly accurate information to monitor hazardous particles and improve efficiency in your process.



## PRODUCT AND ACCESSORIES



### AIR XDD

Real-time, highly accurate dust monitor, able to simultaneously detect particulates from 0.35 to 40  $\mu\text{m}$  and capable of handling dust loads of up to 1500 mg/m. whilst remaining functional and accurate. Fully configurable in-field and 4G-enabled, delivering clear and straightforward information where you need it most.

No filters, no pump and almost zero maintenance.

A new generation of particulate monitor designed to protect lives and deliver results in the most harsh and hazardous industries.



### AIR XDD TRANSPORTABLE PACK

For use in remote locations or where power is not available. The lightweight Air XDD Transportable Pack powers up your Air XDD 24 hours a day without interruption. Featuring our unique twin-battery system with built-in prioritisation (the system automatically switches to the battery with power available), the Air XDD Transportable pack allows you to swap out and recharge spare batteries quickly and easily without interruption to your work and without ever powering down.

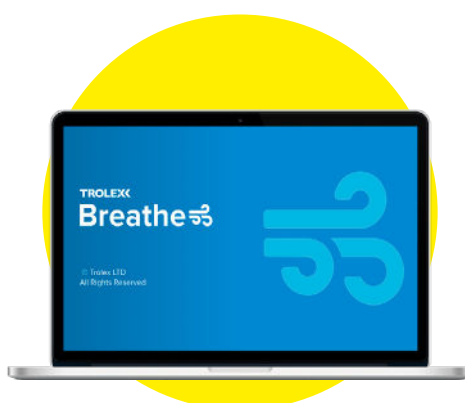
Mounted on a high-quality robust tripod and powered by dual lithium-ion batteries with a typical run cycle of 30 hours per battery. The Standard Air XDD can be converted into the transportable mode in around 20 minutes.



### AIR XD COMPLIANCE PACK

A single, easy-to-use pack for all your service, audit, compliance, QA needs and to verify your Air XD in-situ. All you need is around 20 minutes typically once every 6 to 12 months to ensure your Air XD is compliant, fully functional and ready for use. That's it. No filter change, no pump replacement, no return-to-base or complicated calibration routines.

Contains the Trolex Approved Compliance Audit dust samples along with the Trolex Approved Compliance Audit reusable particulate delivery system.



### BREATHE SOFTWARE AND 4G

We're all about keeping it simple. Our dedicated Breathe Software for the Air XD range is a clear, easy-to-navigate, easy-to-access platform for storing, viewing and accessing all of your particulate data. It provides you with event logging, Approved Audit Certification and QA verification when required, as well as instant alert messaging through 4G connectivity.

Air XD units can be fully configured either in-field using the on-device buttons or using the Breathe Software, giving you maximum flexibility and accessibility.



### EXTENDED WARRANTY PACKAGE

The Air XD extended warranty package gives you peace-of-mind for three years from delivery, guaranteeing you a rapid no-quibble replacement wherever and whenever you need it.

Available on GP version only. Please note that units must undergo the annual Approved Compliance Audit to remain in warranty.

# SPECIFICATION



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## PARTICULATE SENSING PARAMETERS

PM size range	PM1.0, PM2.5, PM4.25, PM10 and TSP
TSP range	Up to 40 $\mu\text{m}$ displayed in $\text{mg}/\text{m}^3$ or $\mu\text{g}/\text{m}^3$
PM measurement range	0.35 to 40 $\mu\text{m}$ over 24 bins
PM measurement capability*	Up to 1500 $\text{mg}/\text{m}^3$
PM continuous operating range**	Up to 25 $\text{mg}/\text{m}^3$
PM density	0.8 g/ml to 8 g/ml (default 1.65 g/ml)
PM measurement units	$\text{mg}/\text{m}^3$ or $\mu\text{g}/\text{m}^3$
Averaging period	1 minute to 24 hours
Averaging channels	STEL rolling average (default 15 minutes) TWA accumulative average (default 8 hours)
Sampling interval	1 second
Particle count	Up to 10,000 (particles/second)
Sample flow rate	Dynamic (1.2 L/min nominal)
Total flow rate	5.5 L/min (typical)
Accuracy	$\pm 5\%$

\* The instrument can define particulate measurement peak trends up to the quantity specified.

\*\* During sustained high dust loading periods, the instrument will report on PM data up to the quantity specified.

Note: Sustained exposure to PM quantities above 25  $\text{mg}/\text{m}^3$  will be logged; however, may affect the operating life of the particulate sensor (OPC).

## TECHNICAL INFORMATION

Ambient temperature limits	-10 to 45 °C
Humidity	0-95% RH (non-condensing)
Protection classification	Main enclosure, dust and waterproof: IP66 Particulate flow path, cap open: IP22 Particulate flow path, cap closed: IPX6
Housing material	Stainless steel
Net weight	8.2 kg
Cable entries	7 x M20 with removable blanks 1 x M20 USB connector
Power	100 to 240 V – ac 50/60 Hz 9 to 36 V dc – General Purpose 9 to 16 V dc – hazardous locations
Supply current	100 mA nominal ac variant 660 mA nominal dc variant
Power consumption	6 W
Inrush current	350 mA Peak
Relay outputs	Two configurable alarm contacts. Electronically isolated Maximum rating 36 V ac/dc 300 mA (internal overcurrent and overvoltage protection fitted)
Maximum rating	Two configurable (real-time or average readings) R1 and R2 with adjustable setpoints Configurable span range Max attached load: 280 $\Omega$
Communications	RS485 data output with MODBUS RTU protocol or Ethernet (MODBUS TCP/IP optional) 3G/4G modem (where specified)
Data download	External USB interface
Data storage	8 GB > 10 years (logging interval dependent, default 10 seconds)
User interface	128 x 64 dot matrix display with RGB backlight Navigation keypad (weatherproof membrane)
Visual alarms	Display RGB backlight
Indicators	1 x green high brightness LED – sensor heartbeat 1 x blue high brightness LED – communications