

FLIR Airtec™ DPM Series

Wearable, Real Time DPM / EC Monitor
Replicates NIOSH 5040

The Airtec Diesel Particulate Monitor (DPM) from FLIR displays elemental carbon levels in real time, taking the measurement out of the laboratory and placing it in the hands of the mine operator/ventilation engineer. Sensitive, rugged and easy-to-use, the Airtec monitor provides results that are time-and-space-resolved. This capability enables rapid modification of vehicle use, personnel placement and mine or building ventilation. The monitor uses technology developed by the diesel particulate group at the NIOSH Pittsburgh Research Laboratory and has been determined to precisely replicate results from their method 5040 test.

Product Features

- *Lightweight, portable, and rugged design*
- *Large LCD display with backlighting*
- *Wearable by miners on a belt loop or vehicle/wall mounted*
- *High sensitivity to DPM*
- *Contains a flow-selectable air pump*
- *Equivalent results to NIOSH method 5040*
- *Long battery life operation (>12hr continuous use) or AC power*

Benefits

- *Real time results — No more waiting days or weeks for results*
- *Decreased DPM monitoring costs*
- *Helps prevent MSHA non-compliance*
- *Increased miner safety*
- *High DPM level alarms*
- *Enables VOD and engineering control evaluation*
- *Bolsters confidence in a healthy environment*

Operational Advantages

- *No filters to send to an outside lab where all measurements are done on the instrument*
- *Easy-to-use, self-explanatory interface*
- *Verifies effectiveness of ventilation*
- *Generates dozens to thousands of EC concentration values for less than a single NIOSH 5040 test*
- *Can connect to a data network via optional 4-20 mA output*
- *Specifically detects DPM (via EC measurements); no sensitivity to common mine interference*



Includes Airtec monitor, inlet prefilter assembly, five filter cassettes, two prefilter cartridges, USB to mini-USB PC cable, rechargeable battery with 9V/2A Universal AC adaptor (100-240VAC)



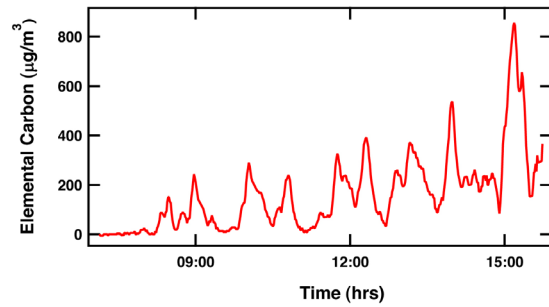
Lightweight and wearable on a belt loop or can be mounted on a vehicle or wall



Why FLIR Airtec™?

FLIR is a leader in the development and integration of advanced sensor technologies for homeland security, force protection and commercial applications. Our sensors and air samplers are used by government and commercial customers to detect explosives, radiation, bioagents, hazardous chemicals and gasses.

In addition to a comprehensive manual, the monitor comes with a simple quick start guide describing: Basic operation, Routine maintenance, Troubleshooting, and Principle of operation. Customer support is available by phone or email (Airtec@flir.com) and annual recalibration is available.



8-hour TWA EC Concentration Comparison via:

1: NIOSH 5040 150.25 $\mu\text{g}/\text{m}^3$
2: Airtec monitor 154.36 $\mu\text{g}/\text{m}^3$

Specifications

FEATURES	
Sensitivity	< 15 $\mu\text{g}/\text{m}^3$ elemental carbon (EC)
Dynamic Range	9-600 $\mu\text{g}/\text{m}^3$ (8hr TWA EC)
Data Archive	2.75 to 66.6 days (1 min. to 1 hr sample intervals)
Output	LCD display with user-controlled backlight; User selectable 1, 5, 15 min. averaging EC and TC data logged 8 hr TWA DPM levels; Mini-USB connection; Optional 4-20 mA output
Alarms	LCD alerts user of Low battery, Filter change, and Pump flow
Power	7.4 VDC (built-in Li-ion rechargeable battery); 100 - 240V AC adaptor
Battery Life	>12 hrs (continuous use)
System Weight	1.5 lbs (681g)
Dimensions	4.75"(H) x 5.25"(W) x 2.5"(D) / 12.1cm(H) x 13.3cm(W) x 6.4cm(D)

Ordering Information

350-10595 Airtec™ Elemental Carbon Monitor
350-10605 Airtec™ Elemental Carbon Monitor, 4-20mA

ACCESSORIES

ATC-01-A Airtec™ Filter Cassettes
ATC-02-B Airtec™ Prefilter Cartridge
ATC-03-KIT Airtec™ Filter/Prefilter Kit (3 Filter Cassettes and 1 Prefilter Cartridge)
ATC-04 Airtec™ Inlet Prefilter Assembly



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