

Casella Dust Detective Enclosure for the Microdust pro

Introduction

The new Dust Detective enclosure is an ideal tool for use with the Casella Microdust pro real time dust and particulate monitor. It features a waterproof kit case fitted with a sampling pump and all the necessary items to allow a user to make stand alone measurements of dust concentrations over an extended period of time.

With the Apex Lite sampling pump the system provides an autonomous measurement system that will run continuously for up to 18 hours in the field.

Both real time logged values and an overall concentration can be captured with correlation to the particle size using PUF foam filters in a standard plastic cassette.

Applications

The Dust Detective is a ruggedized enclosure that can hold a Microdust Pro real time dust monitor together with an Apex Lite sampling pump. The complete kit is simple to assemble and allows static air samples to be collected on site. The IP65 enclosure is fully weatherproof and can be secured at the required location with padlocks (not supplied) for added security. The kit provides all the required information for many measurement applications.

Ordering information

176170D	Dust Detective kit case including custom foam lined weatherproof carrying case, size selective adaptor and PUF foams and accessories – just add your own Microdust pro kit and an Apex sampling pump to complete the kit
176000A	Complete Microdust Pro real time dust monitor and accessories supplied with optical calibration filter, cleaning bellows, RS232 download cable, WinDust Pro software on CD, batteries and universal power supply
182170B	Apex Lite Standard pump with alkaline battery pack



The 176170D Dust Detective weatherproof kit with Microdust Pro dust monitor and Apex Lite pump

Key benefits

- ❑ Fully self contained unit for field use
- ❑ Based on the Microdust Pro real time dust monitor
- ❑ Size selective adaptor for PM10, PM2.5 or respirable measurements
- ❑ Data logging for time history recordings of changing dust concentration levels
- ❑ Complete with optical calibration filter for user to set span of instrument
- ❑ Simultaneous real time measurements and a gravimetric sample of the dust can be captured for later laboratory analysis
- ❑ Easy operation for up to 18 hours run time from internal AA batteries

Ambient air is drawn into the case through the inlet tube fixed to the lid and passes through size selective foam filters, if required, to allow gravimetric samples to be captured. These filters can be used to determine the nature of the particulate pollution for source apportionment issues. The Microdust Pro allows real time dust and particulate levels to be recorded at regular measurement intervals and then downloaded to the WinDust software at the end of the sampling period.

Graphs with summary data can be easily produced to show the changing dust concentration levels during the measurement to correlate with local site activities that were taking place close by during the recording. The PM10, PM2.5 or the respirable fractions of the dust can be selected and monitored using the polyurethane foam (PUF) filters in the inlet side as supplied with the necessary adaptor that is fitted over the optical measurement probe.

(Please note that this kit is not intended for long term outdoor measurements.)