

## Casella Microdust Pro Laboratory Enclosure

### Introduction

The Casella Microdust pro Real Time Dust Monitor is an ideal instrument for measurements in continuous process control applications such as those in the toxicology and pharmaceutical industries. The live displays of the concentration of dust or particulates plus the signal output of the level as an analog voltage enable the user to feed chart recorders or other warning systems. These can be used to correlate with other forms of concentration monitoring to ensure that the process stays within prescribed ranges. The laboratory enclosure has been designed to complement the features of the Microdust pro in a permanent dust monitoring application.



*Casella Microdust pro*

### Key benefits

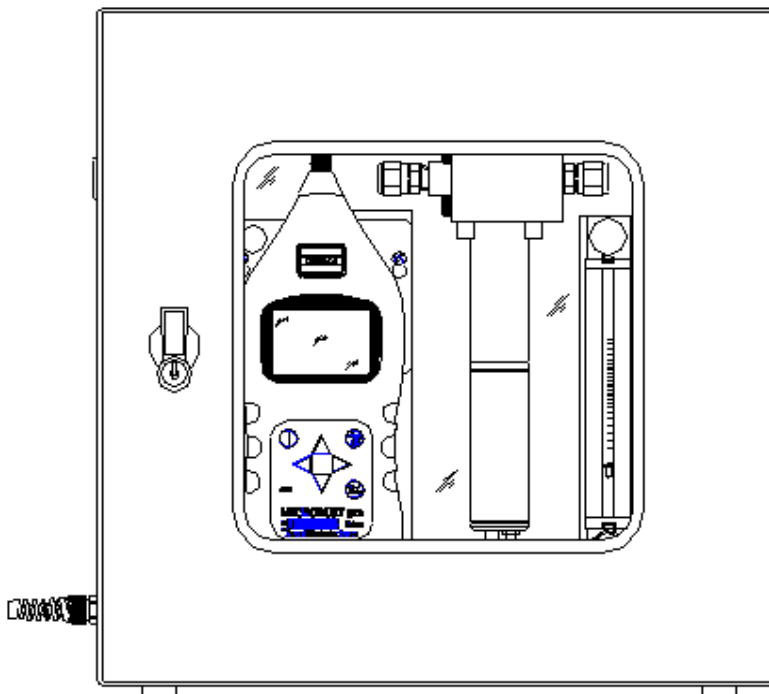
- ❑ Uses a standard Microdust pro Real time dust monitor
- ❑ Can be permanently powered from any convenient 110 Vac mains power outlet
- ❑ Special adapter is available with swage lock fittings for linking in to particulate stream
- ❑ Output dc signal voltage proportional to the real time concentration level is available from 0 to 2.5 Vdc at full scale reading
- ❑ Clean air purging system provided to keep the optical system clean for accurate long term measurements
- ❑ All items fitted in lockable case with clear viewing window in front

### Applications

- ❑ Toxicology testing laboratories
- ❑ Drug company verification testing
- ❑ Monitoring of critical processes in manufacturing industries
- ❑ Real time alarm system to warn of out of limit situations



*Real time screen on Microdust pro monitor*



*Casella Microdust pro fitted in X100186 laboratory enclosure*

The laboratory enclosure for the Casella Microdust pro aerosol monitor includes a newly designed adapter that fits over the optical probe and is sealed with O-rings. It features ¼ in Swage lock fittings that enable the aerosol to be passed over the sensing system to provide the real time output information.

A clean air purging pump is provided in the enclosure to keep the optics clean in high concentration situations and a DIN connection system ensures a neat and reliable means of providing power for the system and the concentration level signal out to any other recording devices such as strip chart recorders or data loggers.

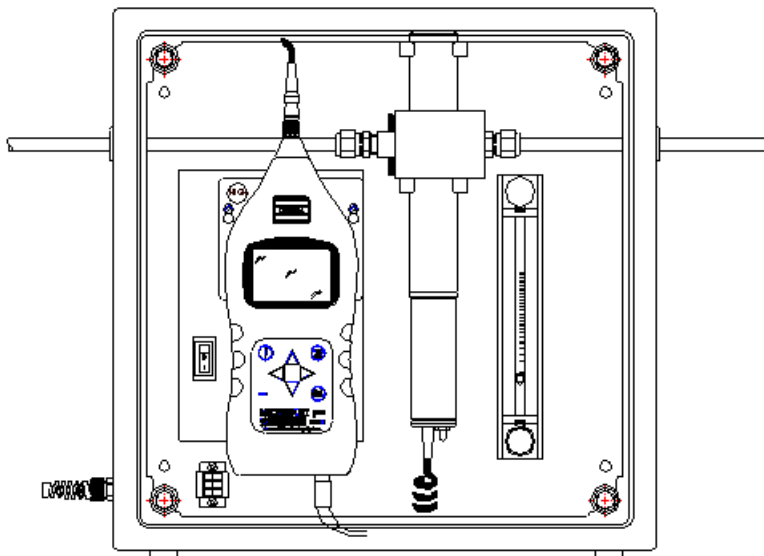
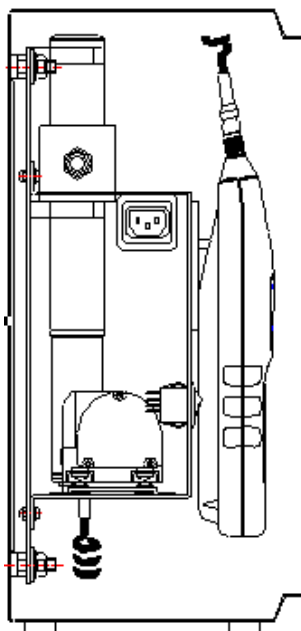


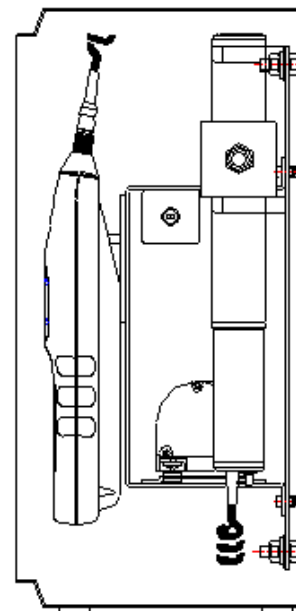
Diagram of internal layout of X100186 enclosure



left side view of X100186 enclosure

### Brief Specifications

- ❑ Narrow angle forward light scattering optical system for enhanced reliability and repeatability
- ❑ 4 independent measuring ranges for various dust concentration levels
  - ❑ 0 to 2.5 mg/m<sup>3</sup>
  - ❑ 0 to 25 mg/m<sup>3</sup>
  - ❑ 0 to 250 mg/m<sup>3</sup>
  - ❑ 0 to 2500 mg/m<sup>3</sup>
- ❑ Output voltage as linear dc signal following the aerosol concentration from 0 to 2.5 Vdc at full scale reading
- ❑ User selectable averaging time from 1 to 60 seconds
- ❑ DIN rail connection system
- ❑ Continuous purging of optics
- ❑ Strong lockable enclosure for maximum security
- ❑ Window in case front to view display at any time



right side view of X100186 enclosure

### Ordering information

X100186	Laboratory enclosure for Casella Microdust pro including Probe adapter with Swage Lock fittings, Purge Pump with adjustable flow meter, DIN rail wiring harness for analog output, mounting chassis and mains power supply
176153A-01	Microdust pro laboratory adapter with ¼ in Swage Lock fittings