

EUROPE'S LARGEST SELECTION OF TEST & MEASUREMENT EQUIPMENT FOR HIRE

INLEC.COM

DATA-SHEET



Nationwide Low Call
0333 6000 600

WHY BUY
WHEN YOU CAN HIRE

CEL-712 Microdust Pro



Typical Applications

- Risk assessments for dusts and aerosols
- Monitoring dust levels within the workplace
- Industrial process monitoring
- Testing air filtration efficiency
- Environmental dust assessments
- Boundary monitoring for construction and demolition

The CEL-712 Microdust Pro is a rugged, hand-held, data logging instrument for the real-time detection of airborne dusts, fumes and aerosols.

It has a large colour display and a graphical facility, allowing the user to instantly view the dust level and trends. It is ideal for walk-through surveys of ambient and indoor workplace environments.

A quick, easy to use instrument, giving the user additional qualitative data which cannot be gained by gravimetric air sampling methods alone. This extremely versatile instrument can also be used with a range of accessories for static and size selective sampling applications.

The CEL-712 Microdust Pro has the highest measurement range of any occupational dust measurement instrument available on the market. Up to 500 measurements can be taken and stored with the large memory. This data can be downloaded into Casella Insight Data Management Software, where it can be stored and analysed as necessary. Reports can easily be generated by location or person using the intuitive report wizard.

Key Features

- Real-time graphical display of dust levels
- Simple icon driven user interface
- Extensive range: 0.001mg/m³ to 250g/m³ (Auto-ranging)
- Unique removable sampling probe
- Rugged design for harsh environments
- Multi-language operation
- Sampling for total, respirable, PM2.5 or PM10 with optional adaptor
- Unique on-site calibration insert
- Environmental enclosure available for boundary monitoring applications

Ideal for use in the following industrial sectors:

Open Cast Mining & Quarrying • Construction & Demolition • Pharmaceutical Manufacturing • Chemical Processing • Environmental Health & Safety Consultancy • Public Sector Applications (such as Defence and Utilities)

Quick and Easy Dust Measurements

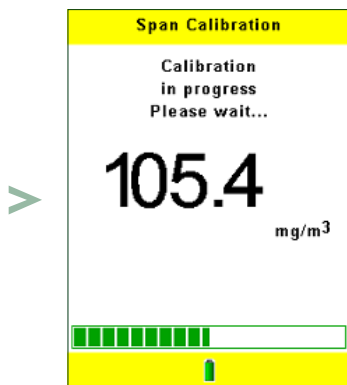
The CEL-712 Microdust Pro can be used for spot checks and walk-through surveys with the advantage of seeing instantly when and where excessive dust levels are occurring. The CEL-712 Microdust Pro is incredibly easy to use with a simple interface. A user can be taking a measurement within seconds of starting the instrument.

A calibration filter is used on site that provides a spot check of the instrument's linearity. This is unique to the marketplace as no other device currently has this capability. The screens are colour coded to ease navigation, once a measurement is started they turn green (shown below) or red when stopped. When taking a measurement, real-time instantaneous and average levels are shown and subsequently stored to the memory for review later.

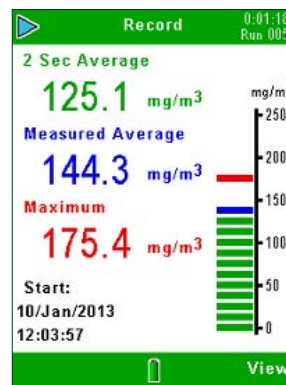
3 easy steps to taking a measurement



Step 1: Switch the CEL-712 on



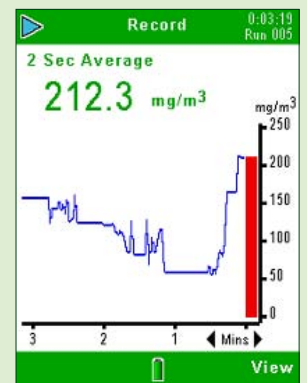
Step 2: Calibrate in 1 button press



Step 3: Press play key to start a measurement



Multi-lingual Interface



Real-time graphical dust display

On-Site Calibration

The instrument is factory calibrated using a method traceable back to isokinetic techniques and is conducted in a custom-built wind tunnel using ISO 12103-1 A2 Fine test dust (Arizona road dust equivalent). Each probe is also supplied with its own unique Calibration Insert, which creates a known optical scattering effect in the probe's sampling chamber. This fixed reference can be used to confirm the original factory calibration point, although annual factory recalibration is recommended.

Whilst the CEL-712 Microdust Pro comes factory calibrated, by using an optional TUFF Air Sampling Pump and gravimetric adaptor, user-defined dust-type settings may be obtained. This means that the user can calculate a correction factor for the actual type of dust being measured and ensures maximum accuracy for their particular application.



On-site calibration device

Measurement Settings

| Particle Type | Factor |
|-----------------------|---------|
| Default | 1.000 ✓ |
| User 1 | 1.000 |
| User 2 | 1.000 |
| User 3 | 1.000 |
| User 4 | 1.000 |
| Range | Auto |
| Display Averaging | 2 Secs |
| Logging Interval | 1 Mins |
| Synchronise Log. Time | X |

Press ▶ to Select Particle

Exit Edit

Single setup screen



Gravimetric calibration to calibrate for specific dusts



Casella Insight Data Management Software

The CEL-712 Microdust Pro can be downloaded to Casella Insight Data Management Software using the USB cable provided. Once downloaded, the time history of the dust level can be displayed and analysed as necessary, so the times and extent of particularly 'dusty' events can be seen.

Measurements can be stored in relation to the person or area they were measured and reports can be produced showing the relevant data for multiple people or places as required.



Switch between managing data or instruments with simple tabs

Simple tree structure to manage data e.g. person, place, etc.

Time history may be viewed, analysed and annotated as required

Sort data by person, process, etc.

Multiple parameters can be displayed and sorted simultaneously

Data can be dragged and dropped to the tree structure as required

Data may be graphed and copied to other applications

| Serial Number | Original Average | Concentration Units | Particulate Name | Particulate Scale Factor | Start Date & Time | Operation ID/ID/ID/ID |
|---------------|-------------------------|---------------------|------------------|--------------------------|---------------------|-----------------------|
| 0232221 | 9.11 mg/m ³ | mg/m ³ | Spray Paint | 1.5 | 01/11/2012 00:00:00 | 268:00:00 |
| 0232221 | 9.29 mg/m ³ | mg/m ³ | Spray Paint | 1.5 | 01/11/2012 00:10:00 | 27:30:00 |
| 0232221 | 0.28 mg/m ³ | mg/m ³ | Spray Paint | 1.5 | 01/11/2012 00:20:00 | 11:30:00 |
| 454322987 | 0.763 mg/m ³ | mg/m ³ | | | 27/11/2009 18:43:40 | 00:00:35 |
| 454322988 | 0.289 mg/m ³ | mg/m ³ | | | 27/11/2009 18:46:53 | 00:00:31 |

Accessories and 'Dust Detective'

A number of accessories are available for use with the CEL-712 Microdust Pro. The size selective adaptor can be used in conjunction with an air sampling pump and PUF filters, such that the real time measurement will be of the required size fraction of dust. If just gravimetric calibration is required then the gravimetric adaptor can be used with an air sampling pump.

The Dust Detective enclosure transforms the Microdust Pro into a short term environmental dust monitor. The Microdust Pro and a TUFF air sampling pump (purchased separately) are housed inside and can therefore provide continuous real-time and gravimetric dust measurements. PUF filters can be used with the Dust Detective to give PM₁₀, respirable or PM_{2.5} size fractions.



Size selective adaptor

Gravimetric Adaptor



Dust Detective environmental enclosure

Technical Specification

General

Measuring range: 0.001mg/m³ - 250g/m³

Zero stability: < 2ug/m³

Batteries: 3 x AA

External power: 12VDC (via -PC18 supply)

Logging interval: 1 sec to 60 minutes

Communication: Mini B USB

Size (instrument): 172 x 72 x 33mm (6.8 x 2.8 x 1.3")

Size (probe): 35 x 205mm (1.4 x 8.1")

Tripod mount: 1/4" Whitworth

Resolution: 0.001mg/m³

Operating temp: 0 - 55°C

Battery run time: Approx 13 hours

Weight: < 600g including batteries (<22oz)

Memory: 86,000 data points (500 measurement runs)

Analogue output: 0 - 2.5V DC FSD

Alarm output: Switched open drain <15V & 500mA DC

Ordering Information

Part number CEL-712/K1: Instrument kit contains CEL-712 Microdust Pro, calibration insert, cleaning bellow, USB cable, 3 x AA batteries, Insight Data Management Software, instruction manual (on flash memory drive) and field guide. All housed in a briefcase style lockable case.

Optional Accessories

206101B Gravimetric adaptor

206102B Size selective adaptor (requires PUF filters)

P118204 PUF filters for PM2.5 (Pack 10)

P118208 PUF filters for respirable (Pack 10)

P118206 PUF filters for PM10 (Pack 10)

P314221 Tuff 4 Plus I.S. Sampling Pump with Charger

PC18 Universal power supply

CMC51 USB download cable*

CEL-6718 Lightweight tripod

196030C Briefcase style lockable case*

206105D Dust Detective Environmental enclosure
(order CEL-712/K1 and pump separately)

* included with instrument kit



Casella CEL

Regent House,
Wolseley Road,
Kempston,
Bedford
MK42 7JY.
United Kingdom
Tel: +44 (0) 1234 844100
Fax: +44 (0) 1234 841490
Email: info@casellacel.com

Casella CEL Inc.

a subsidiary of Ideal Industries, Inc.

415 Lawrence Bell Drive, Unit 4
Buffalo,
NY 14221
USA
Toll Free: (800) 366-2966
Tel: (716) 276 3040
Fax: (716) 276 3043
Email: info@casellaUSA.com

Global Company

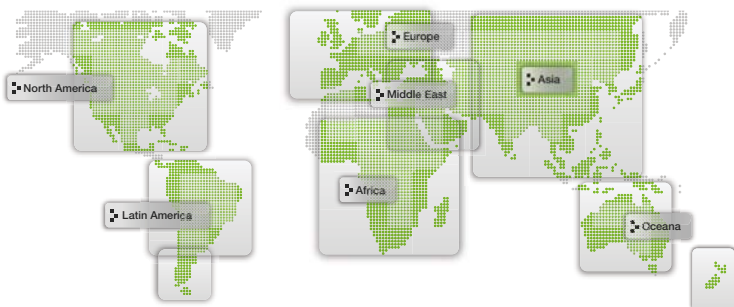
Casella is a global company with a global network of offices and distributors, giving excellent customer support wherever you are. Contact us to find your local office or distributor.

Ideal Industries China

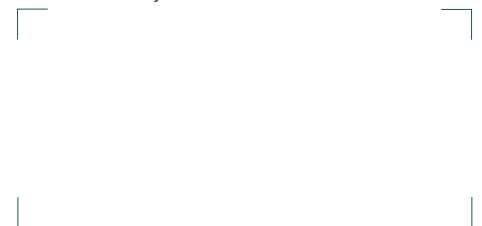
Room 1702, Citychamp Building, No.12 Tai Yang Gong Zhong Lu, Chao Yang District, Beijing 100028, China
Tel: 8610-85183141
Fax: 8610-84298061
Email: info@casellameasurement.cn

IDEAL INDUSTRIES India Private Limited

229-230, Spazedge, Tower - B Sohna Road, Sector - 47Gurgaon - 122 001, Haryana, India
Tel: +91 124 4495104
Email: Casella.Sales@ideal-industries.in



Distributed by



SM11003 v3.0

INLEC, supporting you to deliver a world class service, every day, in every sector ...



OUR COMMITMENT TO YOU

A wealth of knowledge and experience.

You can take advantage of expert advice to ensure you get the best, most appropriate and cost effective equipment for the job. We supply a wide variety of industries, so if there is another way to do the job or save you time and money we'll pass on the benefit of our experience for free.

Honest advice, just a phone call away.

If we don't have a particular item, rather than hiring you something that won't do the job, we would rather direct you to an alternative supplier. You will always be provided with full instructions and if you still need help, call our technical team on Nationwide Low Call 0333 6000 600. Our aim is to save you time, frustration and money.

Top quality equipment from major manufacturers.

With Inlec you'll get the most accurate, reliable and well-maintained equipment available. Prices are regularly reviewed to ensure you always enjoy the best value for money. We have made a significant investment in test equipment so we ensure that it's well packed to minimise damage and delay.

We really do listen to you.

You won't waste your time contacting Inlec. Every request for equipment is logged and carefully considered. Listening to our customers helps keep our product range up to date and relevant. If you are unhappy about any aspect of our service please let us know so we can put it right.

YOUR 5 WAY GUARANTEE

1 GUARANTEE SAME DAY DESPATCH

We understand why prompt delivery is important to you. So, if we confirm your order before 3pm, you are guaranteed same day despatch.

2 OUR PRICE GUARANTEE

Inlec guarantee you real value for money. Our price match policy is simple - if you can hire the same product for less elsewhere, we guarantee to match that price and reduce it by a further 10% of the difference - and still deliver our industry leading technical and customer support.

For full details check our price-match guarantee online

3 TOP QUALITY GUARANTEED

All equipment is thoroughly checked prior to dispatch to ensure you receive it in full, safe working order. Your shipment will be securely packed and include manufacturer's instructions, accessories or consumables and a valid calibration certificate where appropriate. In addition, Inlec offer a 24 hour replacement service if you decide the equipment is not suitable for your application*.

4 FRIENDLY, KNOWLEDGEABLE ADVICE GUARANTEED

Inlec are happy to provide you with free advice, from an unbeatable team of experienced, knowledgeable and friendly engineers and hire experts.

5 YOUR GUARANTEE OF THE BEST CUSTOMER SERVICE

Throughout your hire we will work hard to ensure you enjoy the very best in support and service from Inlec. We guarantee you won't find better service anywhere in the industry.

*subject to availability and conditions

Europe's leading Test Equipment Hire Specialist



LAB NO. 0535



Nationwide Low Call 0333 6000 600

Online: www.inlec.com

Inlec UK Ellerbeck Way, Stokesley Business Park, Stokesley N Yorkshire TS9 5JZ United Kingdom



CERT. NO. GB93/1773



Accredited Contractor