

Product Data Sheet

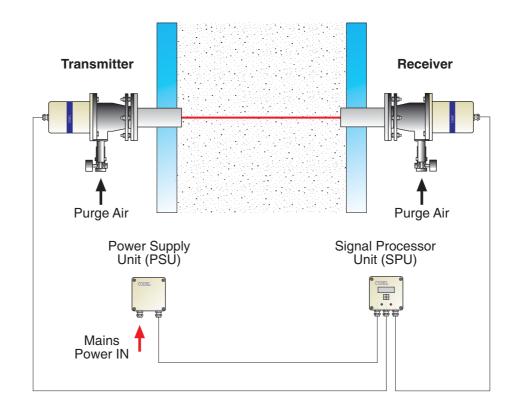
Model D-CEM1000/1001 Opacity Monitor

Single Pass Transmissometer

The D-CEM1000/1001 Opacity Monitors consist of a visible light transmitter and receiver arrangement with digital data processing in a local display unit. The monitors can display data in either opacity, extinction or dust density in mg/m³ or normalised dust density in mg/Nm³.

The D-CEM1001 possesses four analogue inputs for normalisation data; temperature, oxygen, pressure and water vapour.

- simple installation high reliability very low maintenance
- proven technology meets legislative requirements
- data in % opacity, mg/m³, mg/Nm³ dust
- lens contamination minimised by high-efficiency air purges



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SPU/PSU

(wt. 3kg)

Specification

Measurements	š
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Operating Principle

- single pass transmissometer

Light Source - modulated high-intensity LED @

637nm wavelength

Span - fully selectable in % opacity,

Transceiver

(wt. 5.5kg)

extinction, mg/m3 & mg/Nm3

Averaging - 4 rolling averages selectable from

10 secs to 30 days

Accuracy - ±0.2% opacity

Drift - <1% opacity per month

Resolution - 0.1% opacity

Optical Path - 0.5 - 15m

Length

Compliances

EMC - 89/336/EEC directive compliant

Low Voltage - 73/23/EEC directive compliant

Input & Outputs

Analogue - 2 x 4-20mA current outputs, isolated, 500Ω load max., fully

configurable from keypad

Logic - 2 x volt-free SPCO contacts, 50V,

Outputs 1A max., configurable as alarm

contacts

- 1 x volt-free SPCO contact, 50V,

Site Flange

1A max. for data valid

Inputs - 4 x 4-20mA inputs for

(D-CEM1001 normalisation data - temperature,

only) oxygen, pressure & water vapour

General

Display - 32-character alpha-numeric

back-lit LCD

Keypad - 4-key soft-touch entry

Construction - epoxy-coated aluminium to IP67

Ambient - -20°C to +70°C

Temperature

Power - 76V to 265V AC @ 50/60Hz, 20VA

Air Purge - compressed air, 1 litre/sec @ 1bar

Options - heated flanges to prevent

condensation on lenses

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