

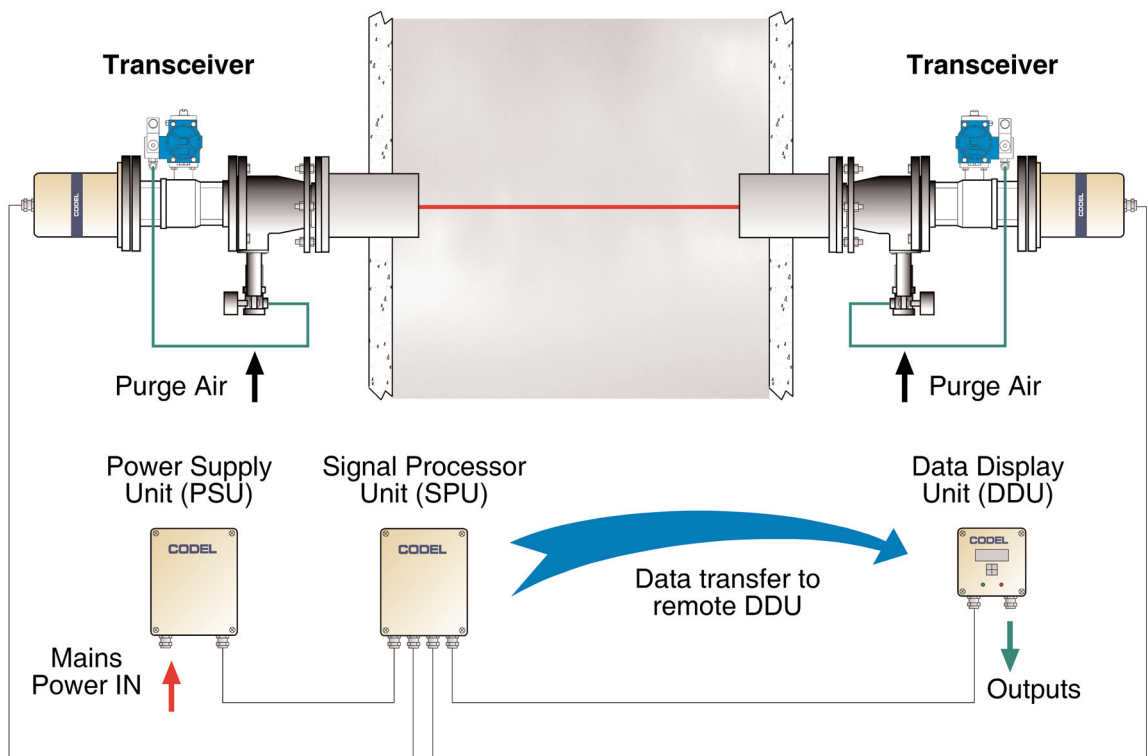
## Product Data Sheet

# Model D-CEM2100 Opacity Monitor (with ball valve)

### Dual-Pass Transmissometer

The D-CEM2100 Opacity Monitor is a dual-pass transmissometer configured for the measurement of opacity and dust concentration within the flue gas. Its unique optical arrangement provides continuous measurements of transmissivity of visible light across the flue in opposite directions, providing not only an accurate average of the dust loading within the duct, but a dynamic assessment of any mis-alignment errors that may occur due to duct movement.

- dual-pass transmissometer
- auto zero and span check
- dynamic mis-alignment check
- normalised reporting
- remote data display
- data in % opacity,  $\text{mg}/\text{m}^3$ ,  $\text{mg}/\text{Nm}^3$  dust

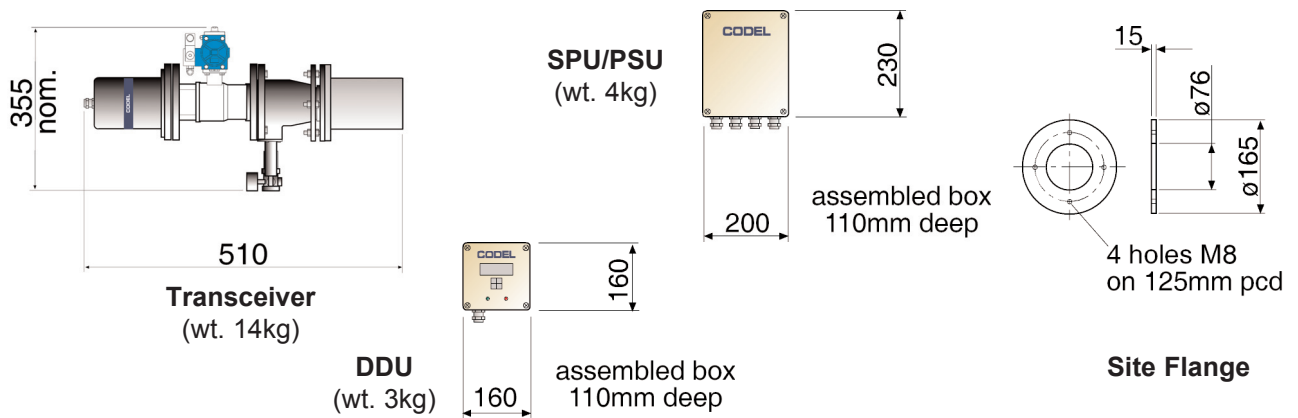


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## Overall Unit Dimensions



## Specification

### Measurements

Operating Principle	- dual-pass transmissometer
Light Source	- modulated high-intensity LED @ 637nm wavelength
Span	- fully selectable in % opacity, extinction, mg/m <sup>3</sup> & mg/Nm <sup>3</sup>
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 Length	- 0.5 - 15m
Calibration	- auto zero & auto span US EPA compliant

### Compliances

EMC	- 89/336/EEC directive compliant
Low Voltage	- 73/23/EEC directive compliant

### Input & Outputs

Analogue Outputs	- 2 x 4-20mA current outputs, isolated, 500Ω load max., fully configurable from keypad
Logic Outputs	- 2 x volt-free SPCO contacts, 50V, 1A max., configurable as alarm contacts - 1 x volt-free SPCO contact, 50V, 1A max. for data valid
Inputs (optional)	- 4 x 4-20mA inputs for normalisation data - temperature, 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 Temperature	- -20°C to +70°C
Power	- 76V to 265V AC @ 50/60Hz, 20VA
Air Purge	- compressed air, 1 litre/sec @ 1bar  - automatic shut-off valve in case of compressed air failure

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