Product Data Sheet

Model V-CEM5000 Gas Velocity Monitor

Non-Contact Gas Velocity Measurement

The V-CEM5000 provides non-contact measurement of gas velocity using a time-delay correlation of flue gas infrared emissions received by two detectors spaced a fixed distance apart.

Gas velocities ranging from 1m/sec to 50m/sec can be measured. The technique is suitable for all combustion gases including hot gases and gases with a high dust burden.

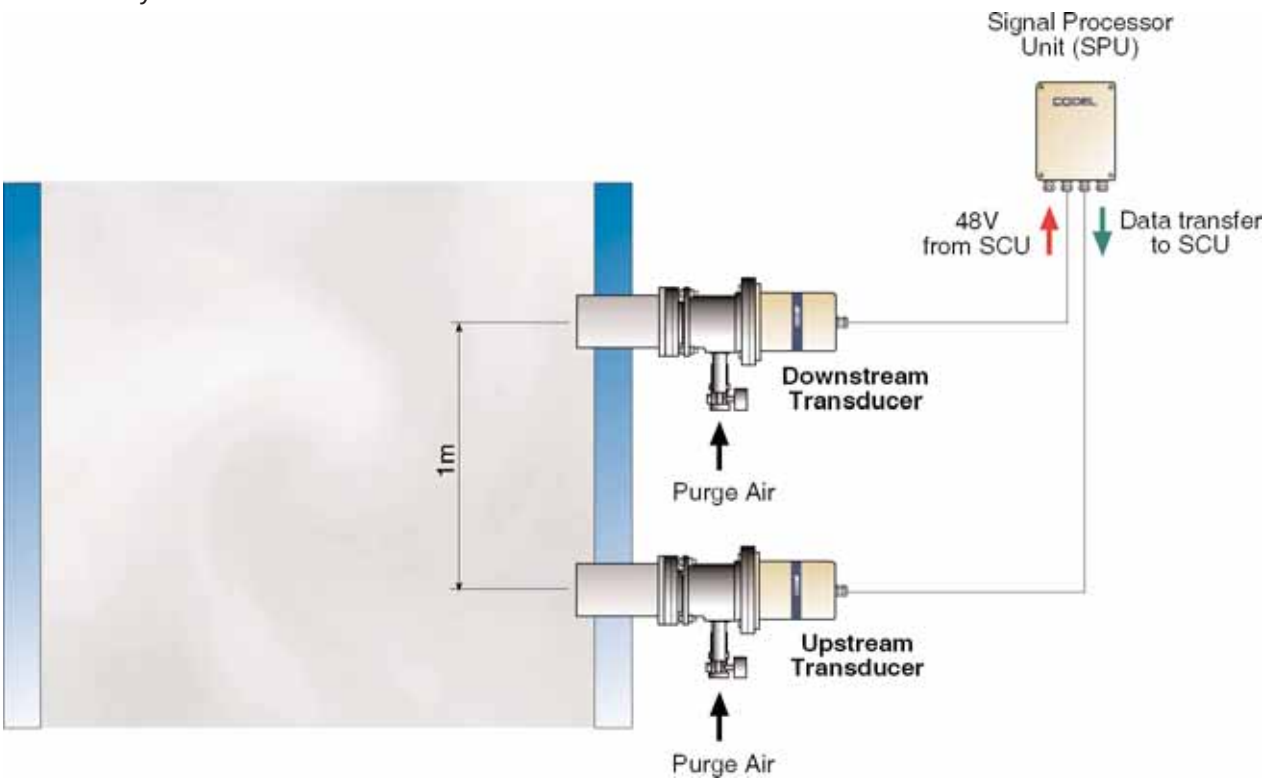
The monitor incorporates integral automatic procedures for span checking and interfaces directly with the SmartCEM Station local data bus so that all diagnostic and measurement data may be accessed by the SmartCEM Control Unit.

- non-contact measurement
- continuous real-time measurement
- suitable for hot & dirty gases
- no moving components
- auto low & high span check

Measurements

Gas velocity in m/sec

Gas flow in m^3/sec



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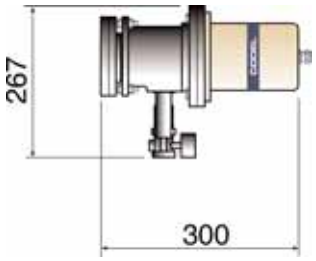
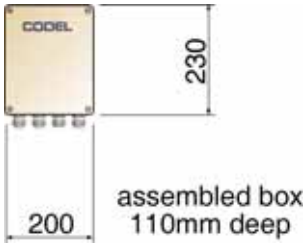
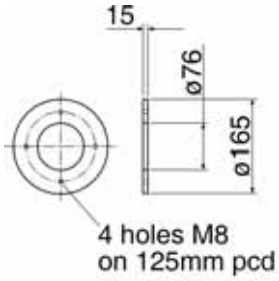
Overall Unit Dimensions



Transducer
(wt. 5kg)



SPU
(wt. 4kg)



Site Flange

Specification

Measurement Units	- velocity	- m/sec
	- flow	- m^3/sec
Detector	- lithium tantalate pyroelectric	
Span	- fully selectable from 0 - 1 up to 0 - 50m/sec	
Averaging	- selectable in the range 10 secs to 1 hour	
Accuracy	- <2% of measurement (zero uncertainty)	
	- <1% of measurement (linearity)	
Flue Gas Temperature	- 850°C max. 100°C min.	

General

Construction	- epoxy-coated aluminium to IP67
Ambient Temperature	- -20°C to +60°C
Power	- 48V DC, 10VA from SCU
Air Purge	- compressed air, 1 litre/sec @ 1bar

Compliances

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

SmartCem

CODEL International Ltd.
Station Building, Station Road
Bakewell, Derbyshire DE45 1GE
England

Tel: +44 (0) 1629 814 351
Fax: +44 (0) 8700 566 307
e-mail: codel@codel.co.uk
web site: www.codel.co.uk

Distributor :