Accurate. Reliable. Cost Effective.

Emissions Monitoring for Compliance & Process Improvement

CEMTEK Instruments

SCR NOx Monitor - Model 8000 Low Dilution Probe

Technology

Cemtek has brought proven Silicon Photodiode Sensor Technology together with a unique low-dilution probe measurement technique. The result is a compact and rugged close-coupled probe system for process control measurement of NO_x (Chemiluminescense), SO_2 (Ultraviolet), CO_2 (Infrared) and O_2 (Zirconia).

The 8000 design makes it well suited for gas turbines and coal fired applications, while it's fast response is ideal for Combustion Turbine optimization.

The SCR NOx Monitor system is a cost effective alternative to expensive CEMS. Designed to provide reliable process monitoring solutions before and after the SCR.

Model 8000 Controller

Features and Benefits

- Silicon Photodiode Sensor for minimal drift or interference
- Revolutionary low sample flow eliminates sample conditioning
- Low drift and long term stability for accurate process measurements
- Remote access for trouble shooting and data retrieval
- Automatic calibration feature for system checks
- Insitu response time <5 sec to T90 for feedback control application
- Conventional proven dilution technology for handling dirty fuel emissions
- Reliable measurements in extremely high dust applications
- Simple to navigate operator interface (OIT) with intuitive touch screen technology as a controller panel
- Proven low maintenance design

Model 8000 Probe

Options

- CO_2 & O_2 Diluent Measurement
- NH_3 Scrubber for SCR applications
- Air Cleanup Panel for Clean Dry Instrument Air -40°F dew point
- Hastelloy Probe for corrosive & erosive applications

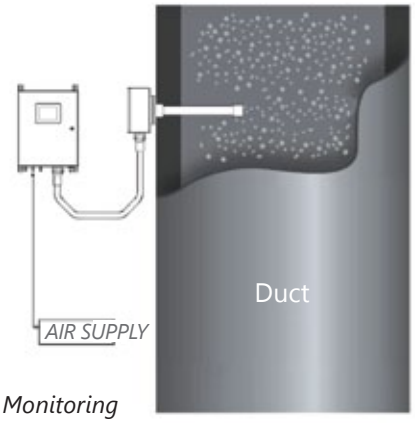
Applications

Coal Fired Utilities, SCR Tuning:
- NO, CO_2

Gas Turbine & NG Engines:
- NO_X , O_2

Desulfurization (FGD) Scrubbers:
- SO_2

Low NOx Burner Tuning:
- CO_2 , O_2 , NO



SCR NOx Monitoring

Measurement Principle	NO – Chemiluminesence SO_2 – UV Absorption	CO_2 – NDIR O_2 – Zirconia
Available Ranges	NO – 0-1000ppm in 50ppm steps SO_2 – 0-2000PPM (max)	CO_2 – 0-100% O_2 – 0-25%
Measurement Uncertainty	+/- 2% for SO_2 +/- 2% for NO /NO_X, CO_2	+/- 1% for O_2
Response Time	T95 < 5 seconds	
Flue Gas Temperature	< 900°F 1200°F for Turbine Applications	
Ambient Temperature	-20 to 140°F	
Digital Interface	ModBus TCP/IP	
Size	Stainless Steel Controller 16"x16"x12", weight 30 lbs.	Stainless Steel Probe 16"x16"x12", weight 20 lbs.
Power Requirements	110Vac, 5A max	
Probe Lengths	18" up to 96" 316 S.S. 150# Flange, ANSI 3, 4, 5 or 6 inch	
Analog Output	1 x 4-20mA per gas	
Digital Output	4 outputs - Fault, Calibration, Zero gas, Span gas	
Instrument Air	Clean Dry - 40°F dewpoint, 70-100 p.s.i.	

CEMTEK Instruments, Inc.
1750 Brielle Avenue, Unit B-2, Ocean, NJ 07712
Tel: 732-493-6370 | Fax: 732-493-6180 | sales@cemtekinstruments.com
www.cemtekinstruments.com