

# Series CA-6300 CA-CALC™ Compliance Protocol Emissions Analyzers

TSI Series CA-6300 Compliance Protocol Emissions Analyzers quickly provide complete results for periodic combustion testing with ensured accuracy. With the on-board CTM-34 test protocol, the CA-6300 analyzers guide operators through each step of the test process and conveniently print reports on site. CA-6300 kits include TSI's innovative sample conditioner for hands-free continual water removal.

### Features

- CTM-34 compliant
- O<sub>2</sub> Reference adjustable from 0% to 18%
- Mass emission viewed in realtime
- Pump flow monitored continuously
- Intuitive operation with large backlit display
- Operates on AC power or C-Cell batteries (24 hrs)
- Rugged case, built-in magnets, heavy-duty pump
- Removable portable analyzer
- Integral purge valve

### Advanced Sensor Technology

- Quick field installation of factory-calibrated sensors
- CO sensor isolation valve and high-limit protection
- Automatic baseline calibration of sensors
- Recalibrates easily for critical safety checks

### Superior Data Logging and Printing

- Store up to 680 sets of combustion test data
- Test data time/date stamped for easy on-site access
- Download data to a computer or print hard copy report
- Auto data logging with selectable time increments



### Applications

- Monitor and service diesel and nonroad systems
- Measure NO<sub>x</sub> and SO<sub>2</sub> emissions
- Monitor emission controls and burner performance
- Tune industrial boilers and process heaters
- Supplement preventative maintenance

### Models Available for:

- Nonroad Engine and Equipment Service Technicians
- Boiler/Burner Service and Repair Contractors
- Plant Engineers
- Process Boiler Technicians
- Utility Companies
- Boiler Owners and Manufacturers

# Specifications

## Series CA-6300 CA-CALC Compliance Protocol Emissions Analyzers

### Sensors

<b>Oxygen (O<sub>2</sub>)*</b>	
Range	0 to 25%
Resolution	0.1% O <sub>2</sub>
<b>Carbon Monoxide (CO)-H<sub>2</sub> Compensated*†</b>	
Range	0 to 5,000 ppm
Resolution	1 ppm
<b>Carbon Monoxide (CO)-High Concentration (optional)*†</b>	
Range	0 to 2% (0 to 20,000 ppm)
Resolution	5 ppm
<b>Nitric Oxide (NO)*†</b>	
Range	0 to 4,000 ppm
Resolution	1 ppm
<b>Nitrogen Dioxide (NO<sub>2</sub>)*†</b>	
Range	0 to 500 ppm
Resolution	1 ppm
<b>Sulfur Dioxide (SO<sub>2</sub>)*†</b>	
Range	0 to 4,000 ppm
Resolution	1 ppm
<b>Flue Gas Temperature Probe</b>	
Range	32 to 1,800°F (0 to 1,000°C)
Resolution	1°F (1°C)
<b>Draft Pressure</b>	
Range	±30 in. H <sub>2</sub> O (±80 mBar)
Resolution	0.01 in. H <sub>2</sub> O (0.01 mBar)
<b>Supply Air Temperature Probe (Optional)**</b>	
Range	-40 to 302°F (-40 to 150°C)
Resolution	1°F (1°C)

### Operating Conditions

<b>Instrument Temperature Range</b>	
Operating Range	32 to 113°F (0 to 45°C)
Storage Range	-22 to 140°F (-30 to 60°C)
<b>Instrument Humidity Range</b>	
Continuous	15 to 90% non-condensing
Intermittent	0 to 99%
<b>Maximum Flue Gas Probe Temperature</b>	
Continuous	1,800°F (1,000°C) (with handle shielded)

### General Data

<b>Instrument</b>	
External Dimensions	6 × 10 × 2.5 in. (15 × 25.4 × 6.4 cm)
Weight	2.5 lbs/3.9 lbs with probe (1.12/1.75 kg)
Display	1/4 VGA B/W
<b>Rugged Carrying Case</b>	
External Dimensions	21 × 13 × 10 in. (53.3 × 33.0 × 24.4 cm)

### Pump

<b>Flow Rate</b>	Nominal 700 cc/min
<b>Maximum Flue Pressure</b>	±30 in. H <sub>2</sub> O (±80 mBar)

### Sample Dryer Kit (Models CA-6315D-Kit and CA-6316D-Kit)

<b>Probe/Hose/Material</b>	Stainless steel/rubber/Teflon
<b>Probe Length***</b>	12 in. std (30 cm)
<b>Hose Length***</b>	25 ft (7.62 m)
<b>Probe Diameter</b>	0.375 in. (0.95 cm)
<b>Gas Dryer</b>	Anodized Aluminum Shell/KYNAR® Fittings/100 Nafion® Tube

### Vacuum Pump

<b>Power</b>	115VAC (60 Hz)
<b>Weight</b>	14.8 lbs (6.7 kg)

### Communication Interface

<b>Type</b>	Serial
<b>Baud Rate</b>	1,200 to 19,200, selectable

### Power Requirements

<b>Batteries</b>	4 size C alkaline batteries
<b>Battery Life</b>	>24 hours (pump on); >48 hr (pump off)
<b>AC Adapter</b>	P/N 2613033 (NA), 2613078 (EU)
<b>Backup Battery</b>	Lithium
<b>Backup Battery Life</b>	3 yrs

\* Electrochemical sensor

\*\* P/N 3013003

\*\*\*Contact factory for quote on custom lengths

† Selectable units include mg/m<sup>3</sup>, g/bhphr, ppm, lb/MBtu, ng/J, g/MWh, mg/MJ, mg/kJ, mg/kWh and g/kWh.

††Calculated from O<sub>2</sub> and fuel type

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Specifications are subject to change without notice.

### Ordering Information

Model	Carbon Monoxide (CO)	Oxygen (O <sub>2</sub> )	Nitric Oxide (NO)	Nitrogen Dioxide (NO <sub>2</sub> )	Nitrogen Oxides (NO <sub>x</sub> )*	Sulfur Dioxide (SO <sub>2</sub> )	Draft Pressure	Ambient, Stack Temp.	Carbon Dioxide (CO <sub>2</sub> **)	Efficiency (Loss) (qA)/Excess Air (EA) (λ)	CO/CO <sub>2</sub> Index (CO <sub>1</sub> )	Adjustable O <sub>2</sub> Reference***	Water Trap and Filter	Sample Conditioning Dryer	Data Storage/Review/Print	8 Factory and 5 User-Defined Fuels	Emissions Probe for NO <sub>2</sub> and SO <sub>2</sub>	Printer	Rugged Case
<b>CA-6315D-Kit</b>	●	●	●	●	●	○	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>CA-6316D-Kit†</b>	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

\* NO<sub>x</sub>=NO+NO<sub>2</sub> in Model CA-6315D

\*\* Calculated from fuel type and O<sub>2</sub>

\*\*\*CO undiluted (air free) when O<sub>2</sub> reference=0

○ Optional accessory sensor

† Available in North America only



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