

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
- O₂ 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_x and SO₂ 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

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Sensors

Oxygen (O₂)*	
Range	0 to 25%
Resolution	0.1% O ₂
Carbon Monoxide (CO)-H₂ Compensated*†	
Range	0 to 5,000 ppm
Resolution	1 ppm
Carbon Monoxide (CO)-High Concentration (optional)*†	
Range	0 to 2% (0 to 20,000 ppm)
Resolution	5 ppm
Nitric Oxide (NO)*†	
Range	0 to 4,000 ppm
Resolution	1 ppm
Nitrogen Dioxide (NO₂)*†	
Range	0 to 500 ppm
Resolution	1 ppm
Sulfur Dioxide (SO₂)*†	
Range	0 to 4,000 ppm
Resolution	1 ppm
Flue Gas Temperature Probe	
Range	32 to 1,800°F (0 to 1,000°C)
Resolution	1°F (1°C)
Draft Pressure	
Range	±30 in. H ₂ O (±80 mBar)
Resolution	0.01 in. H ₂ O (0.01 mBar)
Supply Air Temperature Probe (Optional)**	
Range	-40 to 302°F (-40 to 150°C)
Resolution	1°F (1°C)

Operating Conditions

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

General Data

Instrument	
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
Rugged Carrying Case	
External Dimensions	21 × 13 × 10 in. (53.3 × 33.0 × 24.4 cm)

Pump

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

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

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

Vacuum Pump

Power	115VAC (60 Hz)
Weight	14.8 lbs (6.7 kg)

Communication Interface

Type	Serial
Baud Rate	1,200 to 19,200, selectable

Power Requirements

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

* Electrochemical sensor

** P/N 3013003

***Contact factory for quote on custom lengths

† Selectable units include mg/m³, g/bhphr, ppm, lb/MBtu, ng/J, g/MWh, mg/MJ, mg/kJ, mg/kWh and g/kWh.

††Calculated from O₂ and fuel type

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Specifications are subject to change without notice.

Ordering Information

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

* NO_x=NO+NO₂ in Model CA-6315D

** Calculated from fuel type and O₂

***CO undiluted (air free) when O₂ reference=0

○ Optional accessory sensor

† Available in North America only



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