



Note: Phone not included.

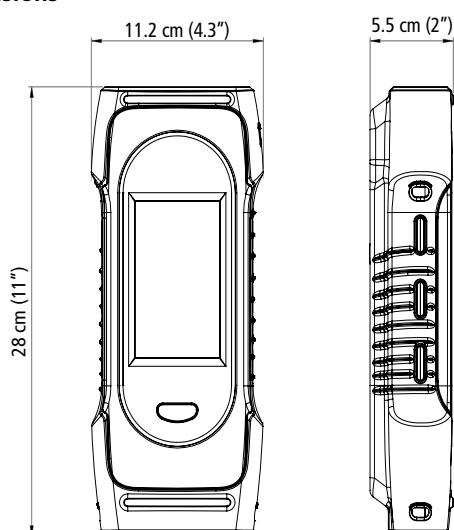


GET IT ON
Google Play

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- Ergonomic, light weight, & durable design
- Data management with automatic logging & report creation
- Predictive maintenance with estimated sensor life & calibration reminders
- One touch pump On/Off with purge
- PC software with wireless and USB connectivity
- Auto pump cut-off for high CO levels
- Graphical data display
- Customizable gas analysis screen

Dimensions



DATA SHEET

Si-CA 230



Gas Analyzer for Emissions Monitoring of Boiler, Engine, & Other Combustion Applications

Accurate / Reliable / Robust / Innovative



Up to Six Gas Sensors. Can include O₂, CO, NO, Low NO, NO₂, Low NO₂, SO₂, Low SO₂, H₂S, and CxHy



CO Dilution auto-range with measurements to 50,000 ppm



Large Color Touch Screen



Total NOx & Low NOx Capable



iOS and Android Mobile Apps
Real-Time Display & Control



Field Replaceable Pre-Calibrated Sensors

- Sample conditioning unit for low NOx & high moisture applications
- Stack gas velocity with Pitot tube
- Draft & differential pressure measurements
- Emissions values adjusted for reference O₂
- CO & CO₂ Monitoring in Ambient Air
- Hose extensions for tall & difficult to reach stacks
- Wireless Printer
- Protective rubber holster
- Maintenance contracts and extended warranties available



Apps and software

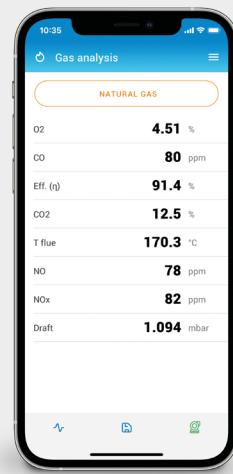
- Free apps for iOS & Android mobile devices
- PC software with USB & wireless connectivity
- Fast, easy wireless connection
- Remote live view of combustion analysis data as list or graph
- Remote control to change settings
- Data saving, including automatic logging
- Report creation in PDF, CSV (for Excel) and XML formats
- Databases for customers, operators, & equipment



Download app

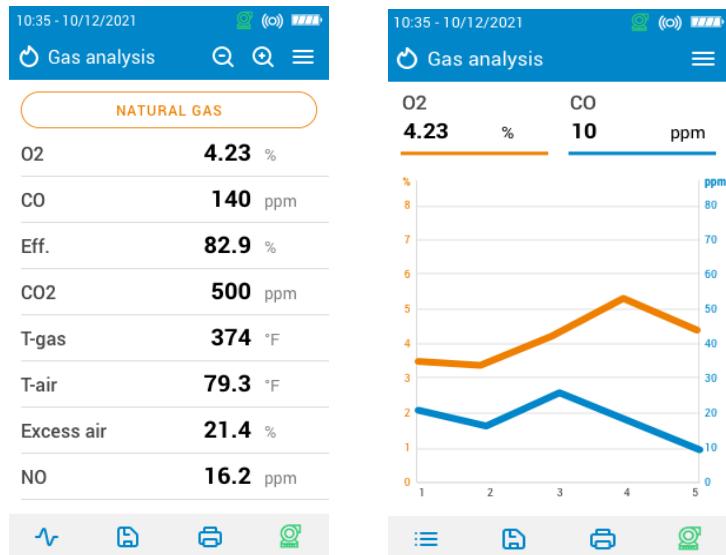


Graph view



Data view

Example of analyzer screens



Si-CA 230 kit content

- Si-CA 230 analyzer
- O₂ & CO gas sensors (other gas sensors available, see Optional accessories)
- CO Dilution Auto-Range to 50,000 ppm
- Protective rubber holster
- 300 mm flue gas probe with 3 m dual hose (other probe lengths available)
- Water trap with filter
- AC power supply / charger
- USB cable
- Mobile app & PC software
- Internal wireless communication module
- Carrying case
- Quick Start Guide
- Calibration certificate



Parameter specifications

Parameter	Sensor	Measuring range	Resolution	Accuracy ⁽¹⁾	Response time
O ₂	Electrochemical	0 to 25%	0.01%	±0.2% vol	T ₉₀ < 30 s
CO (H ₂ comp.)	Electrochemical	0 to 10,000 ppm	1 ppm	±8 ppm < 160 ppm ±5% rdg up to 2000 ppm ±10% rdg > 2000 ppm	T ₉₀ < 40 s
CO (with dilution)	Electrochemical	100 to 50,000 ppm	1 ppm	±10% rdg	T ₉₀ < 40 s
CO ₂	Calculated	0 to 99.9%	0.1%	-	-
NO	Electrochemical	0 to 5000 ppm	1 ppm	±5 ppm < 100 ppm ±5% rdg > 100 ppm	T ₉₀ < 40 s
Low NO	Electrochemical	0 to 300 ppm	0.1 ppm	±1.5 ppm < 30 ppm ±5 % rdg > 30 ppm	T ₉₀ < 40 s
NO ₂	Electrochemical	0 to 1000 ppm	1 ppm	±5 ppm < 100 ppm ±5 % rdg > 100 ppm	T ₆₀ < 60 s
Low NO ₂	Electrochemical	0 to 100 ppm	0.1 ppm	±1.5 ppm < 30 ppm ±5% rdg > 30 ppm	T ₆₀ < 60 s
NOx	Calculated	0 to 7500 ppm	1 ppm	-	-
Low NOx	Calculated	0 to 450 ppm	0.1 ppm	-	-
SO ₂	Electrochemical	0 to 5000 ppm	1 ppm	±5 ppm < 100 ppm ±5% rdg > 100 ppm	T ₆₀ < 30 s
Low SO ₂	Electrochemical	0 to 100 ppm	0.1 ppm	±1.5 ppm < 30 ppm ±5% rdg > 30 ppm	T ₆₀ < 30 s
CxHy (HC)	Pellistor	0 to 5%	0.01%	± 5% full scale	T ₉₀ < 40 s
H ₂ S	Electrochemical	0 to 500 ppm	0.1 ppm	±5 ppm < 100 ppm ±5% rdg > 100 ppm	T ₆₀ < 35 s
Flue temperature	TcK	-20 to +1250 °C -4 to +2282 °F	0.1 °C 0.1 °F	±2 °C or ±0.5% rdg ⁽²⁾ ±3.6 °F or ±0.5% rdg ⁽²⁾	-
Air temperature	NTC or TcK	-20 to +120 °C -4 to +248 °F	0.1 °C 0.1 °F	±2 °C ±3.6 °F	-
	Pt100	-40 to 250 °C -40 to 482 °F	0.1 °C 0.1 °F	±(0.3% rdg ±0.25) °C -40°F to 32 °F: ±(-0.3% rdg +0.6) °F 32°F to 482 °F: ±(0.3% rdg +0.4) °F	-
Differential temperature	Calculated	0 to 1250 °C 0 to 2282 °F	0.1 °C 0.1 °F	-	-
Pressure/Draft	Semiconductor	-200 to +200 mbar -80 to +80 inH ₂ O	0.01 mbar 0.001 inH ₂ O	±1% rdg ±0.03 mbar ±1% rdg ±0.012 inH ₂ O	-
High accuracy draft	Semiconductor	500 Pa	0.1 Pa	±0.5 Pa < 10 Pa ±3 Pa up to 150 Pa ±1% rdg ±1.5 Pa > 150 Pa	-
Excess air	Calculated	0 to 999%	1%	-	-
Efficiency	Calculated	0 to 100% (Gross/ HHV ⁽³⁾)	0.1%	-	-
Efficiency (condensation)	Calculated	0 to 125% (Net/ LHV ⁽⁴⁾)	0.1%	-	-
Stack Gas velocity	Calculated	0 to 99 m/s 0 to 19,500 fpm	0.1 m/s 1 fpm	-	-

⁽¹⁾All accuracies indicated in this document were stated in laboratory conditions at 20 °C (68 °F) and can be guaranteed for measurement carried out in the same conditions.

⁽²⁾Accuracy given for the analyzer only.

⁽³⁾For Higher Heating Value / ⁽⁴⁾For Lower Heating Value

General features

Dimensions	28 x 11.2 x 5.5 cm (11 x 4.3 x 2")
Weight	825 g (30 oz)
Display	Color Touch Screen with Graphing; Size: 480 x 272 pixels
Keypad	1 On-Off key
Material	ABS-PC
Protection	IP42
Connection	<ul style="list-style-type: none">- Wireless: class 2 range, range frequency from 2402 MHz to 2480 MHz with a transmit power of 1 dBm.Range up to 15 m (50 ft), depending on smartphone radio strength.Minimum required versions: Android 8.0, iOS 12.4, BLE 4.0 Low Energy- USB
Power supply	<ul style="list-style-type: none">Rechargeable battery, USB power supplyLi-Ion 5100 mA/h 3.6 V battery / Power supply voltage of the mains unit: 100-240 Vac, 50-60 HzMains unit: 5 Vdc/2A
Battery	Battery life > 8 h; Charging time: Fully charge: < 6.5 h; 50%: < 2.5 h
Memory	Internal memory up to 2000 tests
Environmental conditions of use	<ul style="list-style-type: none">Temperature: from -5 to 45 °C (23 to 113 °F),Hygrometry: in non-condensing conditions (< 85% RH)Maximum altitude: 2000 m (6561')
Storage temperature	From -20 to 50 °C (-4 to 122 °F)
Languages	English, French, German, Spanish, Italian, Portuguese, Chinese
European Union Directives	2014/53/EU (RED); 2015/863 EU (RoHS 3)
Regulations	<ul style="list-style-type: none">EN 50379-1 and EN 50379-2; UNI 7129; UNI 11137; UNI 10389; UNI 10845;UL & cUL Certification; BS 7967:2015; BS EN 50543:2011; UNE 60670-10; ES.02173.ES;TÜV SÜD Certification

Optional accessories*

Part number	Description	Illustration
27520 (NO) 27521 (Low NO)	NO or Low NO sensor for NOx	
27526 (NO2) 27527 (Low NO2)	NO2 or Low NO2 sensor	
27528 (SO2) 27529 (Low SO2)	SO2 or Low SO2 sensor	
27530	CxHy sensor	
27531	H2S sensor	
27532 (180 mm) 27533 (300 mm) 27534 (750 mm) 27535 (1 m) 27536 (1.5 m)	180, 300 and 750 mm and 1 m and 1.5 m probes available	
27936	180 mm flexible probe	
27544	Draft probe	
24646	Smart air temperature probe with 2 m cable	
27547	CO ambient probe	
27548	CO2 ambient probe	
27546	Remote wireless printer	
27537	3 m dual hose extension	
27538	Differential pressure hose kit	

*See the Si-CA analyser accessories datasheet for more details.

Part number	Description	Illustration
11994	Manual smoke pump kit	

28186	SCU S+M (Sample Conditioning Unit). Factory mounting.	
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Ordering Information

All kits includ the following: a 300 mm probe rated to 800 °C (1472 °F) with 3 m dual hose, an ABS hard plastic carrying case, a rubber holster, a water trap with filter, a charger with plug set, a USB cable, a quick start guide and a calibration certificate

Item #	Reference	Description
Si-CA 230-2	27522	Si-CA 230 Analyzer includes two gas sensors (O ₂ , CO)
Si-CA 230-3N	27597	Si-CA 230 Analyzer includes three gas sensors (O ₂ , CO, NO)
Si-CA 230-3NL	27598	Si-CA 230 Analyzer includes three gas sensors (O ₂ , CO, Low NO)
Si-CA 230-4ND	27599	Si-CA 230 Analyzer includes four gas sensors (O ₂ , CO, NO, NO ₂)
Si-CA 230-4NS	27600	Si-CA 230 Analyzer includes four gas sensors (O ₂ , CO, NO, SO ₂)
Si-CA 230-4NC	27601	Si-CA 230 Analyzer includes four gas sensors (O ₂ , CO, NO, CxHy)
Si-CA 230-4NLDL	27602	Si-CA 230 Analyzer includes four gas sensors (O ₂ , CO, Low NO, Low NO ₂)
Si-CA 230-4NLSL	27603	Si-CA 230 Analyzer includes four gas sensors (O ₂ , CO, Low NO, Low SO ₂)
Si-CA 230-5NDS	27604	Si-CA 230 Analyzer includes five gas sensors (O ₂ , CO, NO, NO ₂ , SO ₂)
Si-CA 230-5NDC	27605	Si-CA 230 Analyzer includes five gas sensors (O ₂ , CO, NO, NO ₂ , CxHy)
Si-CA 230-5NSC	27606	Si-CA 230 Analyzer includes five gas sensors (O ₂ , CO, NO, SO ₂ , CxHy)
Si-CA 230-5NSH	27607	Si-CA 230 Analyzer includes five gas sensors (O ₂ , CO, NO, SO ₂ , H ₂ S)
Si-CA 230-5NLDLSL	27608	Si-CA 230 Analyzer includes five gas sensors (O ₂ , CO, Low NO, Low NO ₂ , Low SO ₂)
Si-CA 230-6NDSC	27609	Si-CA 230 Analyzer includes six gas sensors (O ₂ , CO, NO, NO ₂ , SO ₂ , CxHy)
Si-CA 230-6NLDLSH	27611	Si-CA 230 Analyzer includes six gas sensors (O ₂ , CO, Low NO, Low NO ₂ , Low SO ₂ , H ₂ S)

Maintenance

We carry out calibration, adjustment and maintenance of your devices to guarantee a consistent and accurate level of quality of your measurements. As part of Quality Assurance Standards, we recommend annual recalibration and maintenance check-up.

