testo

US EPA
ET✓ Verified
Advanced Testing Program

testo 350-S 350-XL

Portable Emission Analyzer System

For Compliance, Tuning, and Maintenance
The Testing Solution for Your Combustion Application

Wireless Bluetooth 2.0

O_2

CO

CO_{LOW}

NO / NO_2

NO_{LOW}

NO_X

CO_2
(NDIR & Calc)

SO_2

HC

H_2S

Temp

Pressure

Flow

Velocity

Efficiency

Mass

Humidity

testo 350 - the total solution for emission testing and combustion analysis

The 350 emission analyzer - the world's most advanced - provides compliance level accuracy, extreme testing flexibility, and the highest performance. It's no wonder why the testo 350 is chosen by more professionals for emission testing and process monitoring. Simply put, for every combustion application, the 350 analyzer offers a solution.

The 350 helps meet the ever increasing demands of regulations and the needs of process efficiency and optimization. Exclusive sensor design, patented sample gas paths, active sample conditioning all come together for a perfect, lightweight, simple-to-use emission monitoring solution. So, whether you are testing for state or EPA compliance, or to troubleshoot and tune your combustion process, the testo 350 will do it with ease.

Control Unit

- Simple handheld operation provides greater testing flexibility
- Display and print the values you want
- Operate docked or remotely with wire or Bluetooth 2.0

Analyzer Box

- Greater accuracy with testo exclusive Low NO_X and Low CO sensors
- Continuous temperature compensation and sensor temperature control
- Wide testing ranges with integrated sample dilution systems
- Advanced NDIR technology for accurate CO_2 measurement
- Superior sample conditioning for True NO_X results
- Powerful pumps for fast response

Recommended for testing using:

- EPA test methods
- CTM's - 030, 034
- ASTM - D6522
- State & Local Protocols: CA, TX, OK, PA, etc.

US EPA
ETV Verified
Advanced Testing Program

Bluetooth®

Sampling probes

The widest and most complete line available

Designed for the most important application - yours!

The 350's modular design provides vast opportunities to configure an analyzer system for your specific testing requirement. Plug and play sensors give you optimum versatility. High-velocity sample transport and the integrated thermoelectric cooler make sampling - hassle free! Remote control convenience makes it easy. Application configured kits make the testo 350 perfect for you.

• The most accurate sensors for low range NOx (NO & NO$_2$) and CO (0.1 ppm) or swap out for higher range testing

• Superior sample conditioning proven to be effective, convenient, and vital for ultimate accuracy

• Integrated dilution system for extended testing ranges, greater sensor protection and unlimited testing possibilities

• Easy data logging with on-board, user defined, automatic testing programs that can last for minutes or months

• Powerful software options that provide a wealth of information and complete control from your keyboard

Standard gas sampling probes

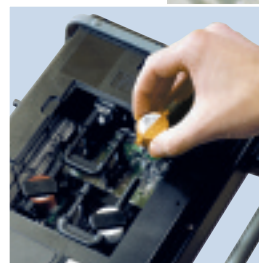13″ & 28″ lengths with or without pre-filtering

Modular industrial gas sampling probe

3 ft. lengths (from 1200 to 2200°F) with optional pre-filtering, thermocouples, and heated lines

Pitot tubes

for stack flow and velocity measurements. Simply attach for real time display of mass emissions (lbs./hr., etc.)

Plug and play smart sensors are field replaced in seconds. Delivered factory-calibrated for immediate accuracy

Simple rugged connector for sample gas and differential pressure

NDIR Infrared technology for direct accurate measurements of CO$_2$

Temperature controlled thermal-module extends ambient testing range for increased accuracy

The Control Unit - "S" or "XL" model

The "S" version control unit is a handheld device that communicates with the analyzer while either docked securely in the analyzer box for standard testing or removed and placed remotely (i.e. truck, control room or thousands of feet away). Have total control of the system at your fingertips during engine or boiler tunings and display real time measurements on the large backlit display. You can also print the results of your testing on the integrated thermal printer or use the RS 232 computer interface for immediate software display.

The XL control unit is an upgrade from the "S" version. It offers multi-unit data bus capability, a differential pressure sensor and an additional socket for many other measurement probes. A touch screen option is available on the XL version only. Both versions can be upgraded with wireless Bluetooth 2.0 communication. Now you can communicate up to 330 feet away. The wireless option eliminates cables and makes set-up easy!

Control unit testo 350-S

Remote cable connection

RS 232 connection

Control unit testo 350-XL

Additional ∆P sensor

Additional probe socket for a wide range of parameters

Remote cable connection

RS 232 connection

Compare Control Unit Models S and XL		
	S control unit	XL control unit
Built-in printer	■	■
Differential pressure measurement (-16" to +16" H_2O / -80" to +80" H_2O)	–	■
1 user defined probe socket (for i.e. temperature, relative humidity measurement, etc.)	–	■
Touchscreen	–	O
Connection from a flue gas analyzer to the control unit	■	■
Connection of several flue gas analyzers (testo data bus)	–	■
NiMH rechargeable battery pack	–	■
Internal memory for 250,000 readings	–	■
Bluetooth® 2.0	O	O

■ = Standard   O = Upgrade Option   – = Not Available

The Analyzer Box - "S" or "XL" model

The analyzer box is the "heart" of the measuring system and is available in two different versions:

The basic 350-S model

The testo 350-S comes standard with an O_2 cell and one other module of your choice. However, up to five additional modules (NO_2, SO_2, NO, NO_{Low}, CO, CO_{Low}, H_2S, C_XH_Y or CO_2) can also be retrofitted for a maximum of six cells. Temperature and differential pressure are standard while efficiency and excess air are calculated. Upgrades to the "S" model include a sample conditioning system, dilution system and/or fresh air valve for long-term monitoring.

The advanced 350-XL model

All of the "S" model upgrades are standard in the "XL" version.

- Test up to six gases simultaneously or swap them for additional parameters with convenient plug and play sensors (C_XH_Y, NO_{Low}, CO_{Low}, SO_2, H_2S, CO_2)

- Advanced sample conditioning utilizes an integrated Peltier chiller for moisture drop-out, a peristaltic hose pump for controlled water removal, and quick-change particulate filters

- Proven sample gas path with Teflon® lined hoses

- Continuous temperature compensation for assured accuracy

- Innovative dilution systems for the widest testing ranges and greatest sensor protection. CO to 400,000 ppm! NO, NO_2, SO_2, H_2S to 5 times the sensor range

- User defined programs with onboard memory to 250,000 values

- Integrated pressure measurement for draft, ΔP, velocity and mass emission

- Rechargeable battery with outboard DC connection and AC operation

- Flow rate and sensor temperature monitoring for US EPA CTM-030, -034 and ASTM D6522 requirements

- Comprehensive calculations including O_2 corrections for NO_X, CO, and SO_2, mass measurement with pitot and stack dimension input

- Simple on-site sensor calibration capability including diagnostics and sensor output (0 – 100%)

Compare Analyzer Box Models S and XL		testo 350 S	testo 350 XL
Maximum no. of sensors		6	6
O_2	0 – 25 Vol.	■	■
CO (H_2)	0 – 10,000 ppm	O	■
CO_{Low} (H_2)	0 – 500 ppm	O	O
NO	0 – 3,000 ppm (0.1 ppm resolution)	O	■
NO_{Low}	0 – 300 ppm (0.1 ppm resolution)	O	O
NO_2	0 – 500 ppm (0.1 ppm resolution)	O	■
SO_2	0 – 5,000 ppm	O	O
HC	0 – 4 Vol. % (0.001 % resolution)	O	O
H_2S	0 – 300 ppm (0.1 ppm resolution)	O	O
CO_2 (NDIR)	0 – 50 Vol. %	O	O
Built-in gas preparation unit (is recommended for compliance testing, high humidity levels and long-term measurements >2 hrs measuring time)		O	■
Automatic fresh air rinse with valve (incl. measurement range extension with dilution factor 5 for all sensors)		O	■
Measurement range extension for CO measuring module (with selectable dilution factors)		O	O
CO measuring module switch-off via adjustable switch-off threshold		■	■
Trigger input – stops and starts measurement externally		O	O
Differential pressure measurement (-16" to +16" H_2O/-80" to +80" H_2O)		■	■
Built-in rechargeable battery		■	■
2 temperature probe sockets (Type K NiCr-Ni)		■	■
Data logger (250,000 readings)		■	■
testo data bus connection		■	■
Bluetooth® 2.0		O	O

■ = Standard   O = Upgrade Option

350 Data Bus System for Multi-Unit, Simultaneous Testing

Understand your process inside and out with multiple 350 XL analyzer boxes. Real time, user defined measurements are displayed individually from each analyzer or simultaneously as a graph or table in our software package. Six channel analog output boxes can be looped in the bus system to provide a user scaled 4-20mA output.

Exclusive testo 350 XL
data bus system (max 16)

4-20mA analog output box

Ideal for: SCR optimizing, determining catalyst efficiency and performing overall trend analysis.

Sampling probes for every application

Our hose and probe options cover virtually every sampling requirement. The standard stainless steel probes are available in 13" or 28" lengths and are equipped with integrated thermocouples. Each can be upgraded with a sintered pre-filter for high particulate loading.

Our patented hoses offer high performance reference sampling at a fraction of the price. The powerful pumps are uniquely engineered to combine both high velocity transport and minimal surface area contact. Hoses are available in 7 ft. and 16 ft. lengths.

The industrial sampling probes incorporate rugged sample transport lines and handles specifically designed for the rigors of industrial stack gas sampling.

The industrial probe shafts come in lengths of 39 inches (one meter) long with rugged screw connections. Three probe shafts can be connected for a probe length of nearly 10 feet. The probe shafts are available in two materials - stainless steel for temperatures to 1112°F or Inconel for temperatures to 2192°F. Ceramic pre-filters can be quickly added for high particulate loading. The Al-oxide ceramic probe can withstand enormous thermal loads to 3272°F.

With our ample selection of industrial thermocouples, thermocouple adapters, and heated sample lines, testo is able to provide a sampling solution for your specific needs. Additional hoses and probes are available:
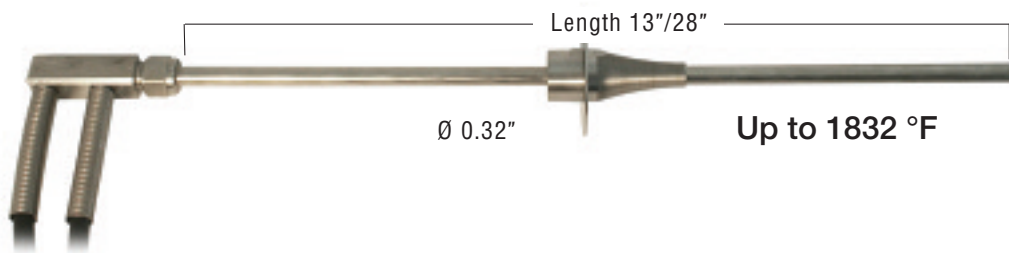
• For engine testing and high pressure applications
• For high particulate loading
• For compliance or cold weather sampling
  with heated lines

Sampling probe

Material probe shaft Tmax 900°F or 1823°F
Hose length: Standard 7 ft.; teflon lined
Material probe shaft: stainless steel

Length 13"/28"

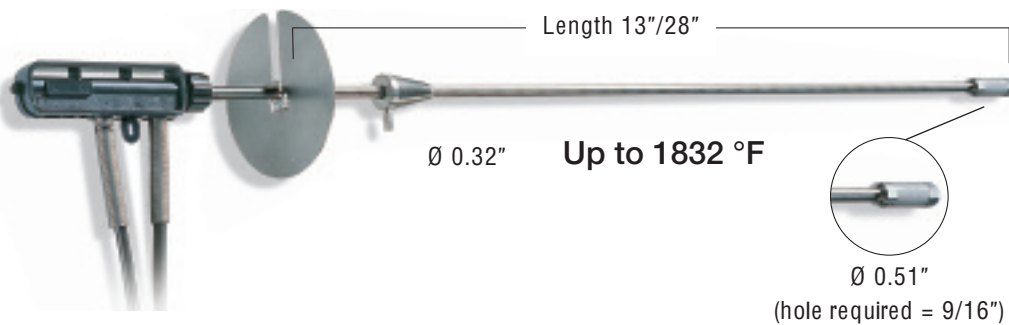Ø 0.32"   **Up to 1832 °F**

Outer pipe with sensor pre-filter (optional)

Option: Outer pipe with filter for dusty flue gases
          Pore size: 3 µm
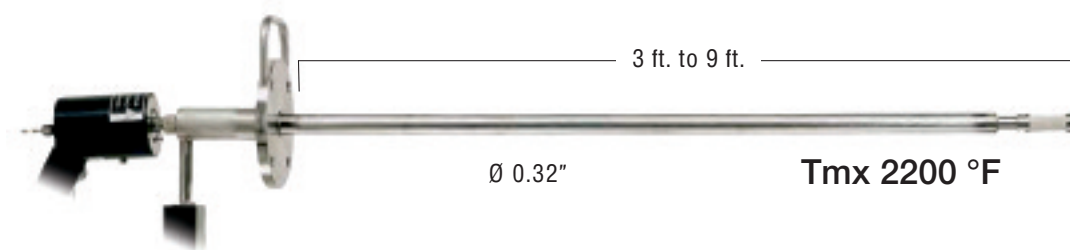   Material probe shaft: stainless steel

Length 13"/28"

Ø 0.32"   **Up to 1832 °F**

Ø 0.51"
(hole required = 9/16")

Industrial gas sampling probes

Option: Outer pipe with filter for dusty flue gases
          Pore size: 3 µm
          Material probe shaft: stainless steel

3 ft. to 9 ft.

Ø 0.32"   **Tmx 2200 °F**

EasyEmission, the powerful software tool for the testo 350

The easyEmission software package allows the user to control every function of the 350 S/XL. The software provides extraordinary data management capability and the ability to import/export data from a number of different formats, effectively increasing the versatility and flexibility of the 350 S/XL to meet the user's testing and data management needs.

EasyEmission has the intuitive user interface of today's common Windows® based applications. Display screens can be customized to match the most commonly used functions. Prepare custom reports and documents with the powerful data management features. (i.e. site name/location/measurement/field comment, etc.).

Some popular user defined capabilities include:

- Real Time Analyzer Control with a PC, showing tabular, graphical and picture box results
- Logging intervals 1/sec to 1/hr
- Real Time Analyzer Control with a PC, showing tabular & graphical results
- Custom formulas for specific report calculations
- Custom report generation
- Quick data transfer into Microsoft EXCEL® and PDF file formats
- User defined Oxygen (O_2) reference values
- Extensive customer/location management functions
- Calculations of Maximum, Minimum, and Mean values

EasyEmission software with RS 232 cable

EasyEmission software allows for PC based controlled operations of the 350. This versatile software application is described above in detail.   **Part no. 0554 3335**

Data bus and RS 232 software options

The testo data bus system allows for operating up to 16 analyzers simultaneously. This has proven to be an extremely important feature for 350 users in many different industries. From manufacturing to power generation markets, this testo exclusive feature has proven itself time and again. For any environment that requires multiple sampling points this is an ideal solution. RS 232 to USB connectivity.   **Part no. 0554 3336**
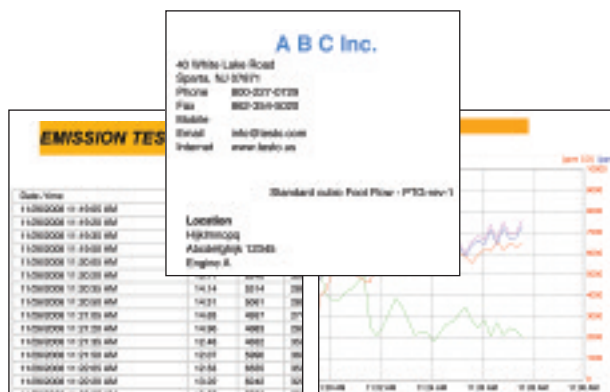
Software with analysis and graphics functions, online measurement and reporting capabilities

Accessories

AC Battery Charger/Adapter

For continuous operation and easy AC charging using a car port terminal.
Part no. 0554 1336 to cigarette lighter
Part no. 0554 1337 to battery clamps

Cases

Transport case for analyzer, probes and accessories
Part no. 0516 0351

System case (aluminum), for analyzer, probes, incl. drawer for accessories
Part no. 0516 0352

Pelican Outer Case

Sturdy plastic case for safe storage and transportation of analyzer, probes, filters, sensors and hoses. Foam sections have been customized to fit items exactly.
Part no. 400516 3511

For use with standard case

Storm Case

Extra long case with sturdy wheels for transporting 28″ probes, analyzer and accessories.
Part no. 400516 3512

Analog output box (mA out)
Only for 350 XL Control Unit

Analog output boxes can be looped into the data bus to output the measurement data as an analog signal (4 – 20 mA). Each box has 6 user defined channels which can be scaled according to application.
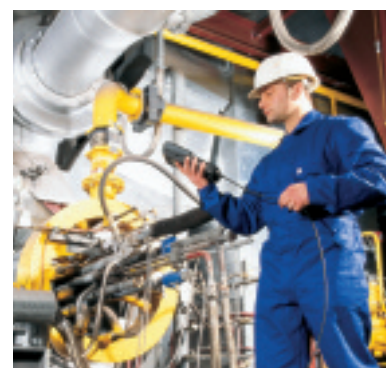Analog output box for output on an analog recorder or for control purposes
Part no. 0554 0845

Ordering Information

testo 350 S Control unit	Part no.
Control unit displays data and controls system, includes built-in printer, connection for testo data bus and terminal plug	0563 0369
Spare thermal paper for printer (6 rolls)	0554 0568

testo 350 XL Control unit	Part no.
Control unit displays data and controls the system, incl. built-in printer, pressure measurement 16"/80" H_2O, 1 user defined probe socket, programmable measurements and memory connection for testo data bus, incl. terminal plug	0563 0353
Additional options for 350 XL control unit model only:	
Touch screen with pen (available only with original order), for easy input of text and values	0440 0559
testo rechargeable battery pack NiMH for control unit, logger	0515 0097

testo 350 S Analyzer box	Part no.
350 S analyzer box is equipped with: O_2, differential pressure measurement, 2 temperature probe sockets, testo data bus connection, built-in rechargeable battery, data logger, can be upgraded to max. 6 sensors, i.e. (NO, NO_2, CO, H_2S, HC, SO_2, CO_2 NDIR)	0563 0368
Note: In order to function, a second sensor must be installed in the 350 S or up to 5 additional modules can be retrofitted to the system as well.	
Option: CO_{Low} sensor	0554 3936
Option: CO sensor	0554 3988
Option: CO_2 sensor (infrared meas.)	0554 0417
Option: HC sensor (nonburned hydrocarbons)	0554 3929
Option: H_2S sensor	0554 3930
Option: NO sensor	0554 3935
Option: NO_{Low} sensor	0554 3928
Option: NO_2 sensor	0554 3926
Option: SO_2 sensor	0554 3927
Option: Peltier gas preparation with hose pump to empty condensate automatically	0440 0355
Fresh air valve for long-term measurement (measurement range extension with dilution factor 5 for all sensors included)	0440 0557
Measuring range extension for CO sensor (dilution), 0554 0555 built into analyzer box, selectable dilution factors: 0, 2, 5, 10, 20, 40	
Event trigger socket, for starting and stopping measurement externally, built into analyzer box	0554 3932

testo 350 XL Analyzer box	Part no.
350 XL analyzer box, is equipped with O_2, CO (with switch-off and rinse function), NO, NO_2, differential pressure measurement, 2 temperature probe sockets, gas preparation, testo data bus adapter, automatic fresh air rinse with valve (including measurement range extension with dilution factor 5 for all sensors), built-in rechargeable battery, data memory, can be upgraded to max. 6 sensors: (H_2S, HC, SO_2, CO_2 NDIR)	0563 0350
Option: CO_{Low} sensor	0554 3925
Option: CO_2 sensor (infrared meas. principle, absolute pressure meas. and CO_2 absorption filter with refill pack incl.)	0554 0417
Option: NO_{Low} sensor	0554 3934
Option: SO_2 sensor	0554 3927
Option: HC sensor (nonburned hydrocarbons)	0554 3929
Option: H_2S sensor	0554 3930
Measuring range extension for CO sensor (dilution), 0440 0555 built into analyzer box, selectable dilution factors: 0, 2, 5, 10, 20, 40	
Event trigger socket, for starting and stopping measurement externally, built into analyzer box	0440 3932
Bluetooth 2.0 Kit includes modules & rechargeable battery	400554 3339

testo 350 Technical Data

	O$_2$	CO	CO$_{Low}$	NO	NO$_{Low}$	NO$_2$	SO$_2$	H$_2$S	C$_x$H$_y$
Range	0 to 25% vol.	0 to 10,000 ppm H$_2$ comp.	0 to 500 ppm H$_2$ comp.	0 to 3,000 ppm	0 to 300 ppm	0 to 500 ppm	0 to 5,000 ppm	0 to 300 ppm	0.01 to 4%
Accuracy	< 0.2% of m.v.	< 5 ppm 0 to 99 ppm < 5% of m.v. 100 to 2,000 ppm < 10% of m.v. 2,001 to 10,000 ppm	< 2 ppm 0 to 39.9 ppm < 5% of m.v. 40 to 500 ppm	< 5 ppm 0 to 99 ppm < 5% of m.v. 100 to 2,000 ppm < 10% of m.v. 2,001 to 3,000 ppm	< 2 ppm 0 to 39.9 ppm < 5% of m.v. 300 ppm	< 5 ppm 0 to 99 ppm < 5% of m.v. 500 ppm	< 5 ppm 0 to 99 ppm < 5% of m.v. 100 to 2,000 ppm < 10% of m.v. 2,001 to 5,000 ppm	< 2 ppm 0 to 39.9 ppm < 5% of m.v. 40 to 300 ppm	< 400 ppm 100 to 4,000 ppm < 10% of m.v. > 4,000 ppm
Resolution	0.1 vol. %	1 ppm	0.1 ppm	1 ppm	0.1 ppm	0.1 ppm	1 ppm	0.1 ppm	0.001 vol. % =10 ppm
Resp. Time	20 s (t95)	40 s (t90)	40 s (t90)	30 s (t90)	30 s (t90)	40 s (t90)	30 s (t90)	35 s (t90)	40 s (t90)

	CO$_2$	CO$_2$ Calculated	Differential Pressure 1	Differential Pressure 2	Efficiency	Flow Velocity	Current Voltage	RPM	Temperature
Range	0 to 50% vol.	0 - CO$_2$ max vol. %	±80” H$_2$O	±16” H$_2$O	0 to 100%	0 to 7900 ft/min	0 to 20 mA 0 to 10 V	20 to 20,000 rpm	-40 to 2192°F
Accuracy	±0.3% vol. +1% of m.v. (0 to 25% vol.) ±0.5% vol. +1.5% of m.v. (> 25 to 50% vol.)	Calculated from O$_2$	< 1% m.v. -20” to -80” H$_2$O < 1% m.v. +20” to +80” H$_2$O < 0.5% -19” to +19” H$_2$O	< 1% m.v. -16” to 1.2” H$_2$O < 1% m.v. +16” to +1.2” H$_2$O < 0.5% -1.2” to +1.2” H$_2$O			±0.04 mA ±0.01 V		< 33°F -40 to +212°F < 0.5% m.v. +212 to +2192°F
Resolution	0.01% vol. (0 to 25% vol.) 0.01% vol. (> 25% vol.)	0.01 vol. %	0.01” H$_2$O	0.01” H$_2$O	0.1%	10 ft/min	±0.01 mA ±0.01 V	1 ppm	

Dimensions: 16” x 11” x 4”

Weight: 9 lbs.

Storage temperature: -40 to +120 °F

Operating temperature: 23 to +113 °F

Housing material: ABS

Memory: 250,000 readings

Power supply: Via built-in power supply (90 V to 260 V, 47 to 63 Hz) or exchangeable rechargeable batteries or external 12 V cables

Electrical power consumption: 0.5 A (110 V AC), 0.3 A (230 V AC)

Dewpoint calculation: 32 to 210 °F td

Maximum positive pressure/Flue gas: 20” H$_2$O

Maximum negative pressure: 80” H$_2$O

Pump flow: acceptable range 0.5 - 1.2 l/min (depending upon application)

Max. dust load: 20 g/m³ dust in flue gas

Max. humidity load: +158 °F Dewpoint temperature at sample gas inlet of analyzer box

Trigger input: Voltage 5 to 12 Volt (rising or falling edge)

Pulse width: > 1 s

Load: 5 V/max, 5 mA, 12 V/max. 40 mA

Warranty: Analyzers 2 years (excluding working parts, e.g. measurement cells...); CO/NO/NO$_2$/SO$_2$/H$_2$S/HC 1 year; O$_2$ measurement cell 1 1/2 years; CO$_2$ IR measurement module 2 years

testo 350 Supplemental Technical Data

CO dilution with selectable dilution factor (option)	
CO measurement (H_2 compensated) CO_{Low} meas. (H_2 compensated)	Meas. range: depending on factor selected Accuracy: ±2 % of mv (additional error) Manual user selectable factors 5-40 or auto 5x dilution
Dilution of all sensors by factor 5 (standard testo 350 XL)	
O_2 measurement	Reading is not shown in display
HC measurement	Reading is not shown in display
CO_2(IR) meas.	Reading is not shown in display
CO measurement (H_2 compensated)	Meas. range: 2500 to 50000 ppm Accuracy: ±5 % of rdg (additional error) Pressure range -60 to 0" H_2O at probe tip
CO_{Low} meas. (H_2 compensated)	Meas. range: 500 to 2500 ppm Accuracy: ±5 % of rdg (additional error) Pressure range -40 to 0" H_2O at probe tip
NO measurement	Meas. range: 1500 to 15000 ppm Accuracy: ±5 % of rdg (additional error) Pressure range -40 to 0" H_2O at probe tip
NO_{Low} measurement	Meas. range: 300 to 1500 ppm Accuracy: ±5 % of rdg (additional error) Pressure range -60 to 0" H_2O at probe tip
NO_2 measurement	Meas. range: 500 to 2500 ppm Accuracy: ±5 % of rdg (additional error) Pressure range -20 to 0" H_2O at probe tip
SO_2 measurement	Meas. range: 500 to 25000 ppm Accuracy: ±5 % of rdg (additional error) Pressure range -40 to 0" H_2O at probe tip
H_2S measurement	Meas. range: 200 to 1500 ppm Accuracy: ±5 % of rdg (additional error) Pressure range -40 to 0" H_2O at probe tip

Technical Data for HC module

Parameter	Methane	Propane	Butane
Meas. range [1]	100 to 40000 ppm	100 to 21000 ppm	100 to 18000 ppm
Accuracy	less than 400 ppm (100 to 4000 ppm) less than 10 % of rdg (greater than 4000 ppm)	less than 400 ppm (100 to 4000 ppm) less than 10% of rdg (greater than 4000 ppm)	less than 400 ppm (100 to 4000 ppm) less than 10% of rdg (greater than 4000 ppm)
Resolution	10 ppm	10 ppm	10 ppm
Min. O_2 req. in flue gas	2% + (2 x methane reading)	2% + (5 x propane reading)	2% + (6.5 x butane reading)
Reaction time t90	less than 40 s	less than 40 s	less than 40 s
Response factor [2]	1	1.5	2

[1] Lower explosion limit must be adhered to.   [2] The HC module is adjusted to methane in the factory. It can be adjusted to another gas by the user.

Combustion Analyzers

327
Oxygen Analyzer

Troubleshoot coal-fired systems, perform engine tuning and adjust burners in industrial kilns with the new 327 single gas analyzer. Comes with a 3 year O_2 sensor warranty!

330-2 LL
Combustion Analyzer

Ideal for commercial / industrial burner-boiler service. Automatically measures O_2, CO, Temperature, Draft, Pressure, Efficiency, Excess air and critical CO_2 calculations. An integrated CO dilution system expands High range CO testing to 30,000 ppm. Optional NO sensor for High NO_X or Low NO_X testing.

335
Three Gas Industrial Analyzer

More powerful, with increased sensor ranges for the most demanding combustion analysis. Ideal for engine tuning, boiler maintenance and process management. Measures oxygen and up to two other user selected gases such as CO, CO_{Low}, NO, NO_{Low}, NO_2, NOx, and SO_2 for the greatest testing flexibility.

IR - Non-Contact Temperature

880
Thermal Imager

High performance thermal imaging at an affordable price. Perform inspections and reduce risks and costly downtimes on industrial machinery, switchgears, process equipment and much more. Professional software, high resolution images and easy joystick navigation make it easy to use and practical to own.

845
Infrared Thermometer with Switchable Optics

Use the 845 to measure points as close as ¼ inch, then simply slide switch for measurements across the room. Whether close up or at a long distance, the 845 gives you exact readings in seconds plus it can also log the data points for analysis.

318 Video PRO Borescope

318-V features powerful optics for easier examination of areas normally hidden from sight. Comfortable handle grip, convenient on/off light switch; 0.4" diameter shaft (10 mm); and video output for recording. Ideal for internal inspections during industrial applications.

Pressure

510
Digital Manometer

Perform system diagnostic tests with a single meter including total external static pressure (TESP), differential pressure duct velocities (fpm with optional pitot tube) and manifold pressures.

511
Absolute Pressure Meter

Perform pressurization risk assessments for combustion air zones as well as room-to-room pressurization tests without running a reference hose.