



Great performance close at hand



NEW 4 SENSORS FLUE GAS ANALYZER

CHEMIST

Up to 4 gas sensors for measurement of:

- O₂
- CO (H₂ compensated)
- NO
- NO₂
- SO₂

Also measured:

- Flue gas Temperature
- Outdoor air temperature
- Room temperature
- Differential temperature
- Draft and differential pressure
- Ambient CO and NO

Calculated Values:

- CO₂
- NO_x
- Boiler efficiency
- Excess air
- Heat stack loss

Additional features:

- Gas piping tightness test
- High accuracy draft measurement
- Firmware updates available for free from Seitron website: www.seitron.it



CHEMIST 400

New 4 sensor flue gas analyzer



Main Features

- Compliant with EN 50379-1
- Up to 4 measurement cells: O₂, CO/H₂, NO, NO₂ and SO₂
- CO measurement cell with 1 ppm resolution and built in NOX/SOX filter
- Precalibrated gas sensors, field replaceable
- Flue gas and outdoor air temperature measurement
- Draft and differential pressure measurement
- Boiler efficiency calculation
- Automatic detection of condensing boiler with efficiency calculation
- CO₂, heat stack loss, excess air calculation
- Ambient CO and NO measurement
- Gas pipe tightness test
- High accuracy (± 0.5 Pa) and resolution (0.1 Pa) draft measurement with external accessory
- 3 consecutive analysis with average calculation and result printout
- Built in impact printer on plain paper (non thermal)
- Internal memory for 300 analysis
- Big blue (42 x 60 mm) graphic LCD backlit with zoom feature
- Rechargeable Lithium Ion batteries
- External Charger/Power Supply with AC plug
- Recharging time: 2 hrs. up to 90%
- Up to 15 hrs. autonomy of continuous operation (no printouts)
- Up to 40 analysis autonomy (with printouts)
- Additional dilution pump for CO cell auto range, measurement up to 50,000 ppm
- Automatic Autozero with sampling probe in the stack
- PC software on USB pendrive and USB cable for unlimited data storage on PC
- Optional Bluetooth communication
- Self diagnostic function with alarms on gas sensors end-of-life
- 180, 300, 750 mm flue gas sensor probes
- 220 mm flexible flue gas sensors sampling probe
- External condensation trap and dust filter
- Unbreakable stainless steel probe and hose connections
- 7 preprogrammed fuels, including pellets and wood
- 9 additional programmable fuels
- 7 different languages preprogrammed
- Neoprene magnetic holster
- User manual and calibration certificate
- Dimensions 307x105x96 mm, weight 1,1 Kg.

CHEMIST 400 KITS

- CHEMIST 400N (O₂, CO/H₂, NO, NO₂) with built in impact printer, rechargeable Li-Ion batteries and dilution pump
- CHEMIST 400S (O₂, CO/H₂, NO, SO₂) with built in impact printer, rechargeable Li-Ion batteries and dilution pump
- Both Kits feature also: hard ABS case, power supply with plug, 300 mm flue gas sampling probe with 3 mts hose, water trap with dust filter, Pt 100 outdoor air temperature sensor, differential pressure kit, neoprene holster with magnets, printer paper roll, USB pendrive with software, USB PC connection cable, user manual and calibration certificate



Code	Accessories and spare parts
AACAL04	Mains adaptor 100-240V~ / 12VDC 2A 24W
AACCA01	Car adapter, IN: 10-30Vdc OUT: 12Vdc
AACCR01	Rigid plastic case 482x375x160mm
AACCT01	Shoulder bag for CHEMIST
AACCV01	PVC cable Schuko plug 10A+earth
AACDP01	Pressure Probe for fine draught measurement
AACEX01	3m extension cable smoke probe
AACFA01	Dust filter X AACFA01
AACKP01	Kit for differential pressure
AACKT02	Tightness test Kit
AACNI01	Printer ink ribbon
AACPB06	Li-Ion battery pack 7.2V 2.2Ah 4/3AF
AACPM01	Manual pump for soot



Smoke sampling probe



Rubber magnetic holster



Tightness test kit



Pressure Probe for fine draught measurement

Code	Accessories and spare parts
AACRC01	Printer paper roll
AACSA04	Air temp. Probe Pt100
AACSE11	Flex-sensor O ₂
AACSE12	Flex-sensor CO/H ₂
AACSE10	Flex-sensor NO
AACSE13	Flex-sensor SO ₂
AACSE14	Flex-sensor NO ₂
AACSF21	Smoke sampling probe 180 mm SEITRON
AACSF22	Smoke sampling probe 180 mm SEITRON
AACSF25	Smoke sampling probe 750mm 1100°C
AACSL02	Flexible smoke sampling probe 220mm
AACSM03	Rubber magnetic holster
AACTA03T	Complete combined filter + connector

WARRANTY

- Chemist Analysers offer 2 years warranty, including gas measurement cells which can be easily replaced by the user.
- With initial extra price it is possible to lengthen warranty term of 1 or 2 years, up to maximum of 4 years.

CALIBRATION CERTIFICATE

- Chemist Analysers are supplied with calibration certificate, 1 year validity.
- Customer may buy calibration certificates in each following year.

SEITRON

36061- Bassano del Grappa (VI) - Italy

Via M. Prosdocimo, 50

Tel. +39-0424-567842

Fax. +39-0424-567849

info@seitron.it

www.seitron.it



Great performance close at hand

CHEMIST 400 - Summary table

Measurement	Sensor	Range	Resolution	Accuracy
O ₂	Electrochemical sensor	0 ... 25.0% vol	0.1% vol	±0.2% vol
CO H ₂ compensation	Electrochemical sensor	0 ... 8000 ppm	1 ppm	±10 ppm ±5% measured value ±10% measured value
CO diluted	Electrochemical sensor	0.05 ... 5.00% vol	0.01% vol	±20% measured value
NO	Electrochemical sensor	0 ... 5000 ppm	1 ppm	±5 ppm ±5% measured value
NO _x	Calculated			
SO ₂	Electrochemical sensor	0 ... 5000 ppm	1 ppm	±5 ppm ±5% measured value
NO ₂	Electrochemical sensor	0 ... 1000 ppm	1 ppm	±5 ppm ±5% measured value
CO ₂	Calculated	0 ... 99.9% vol (1)	0.1% vol	
Air temperature	Pt100 sensor	-20.0 ... 120.0 °C	0.1 °C	±0.5 °C (2)
Flue gas temperature	TcK sensor	-100.0 ... 1250.0 °C	0.1 °C	±0.5 °C ±0.5% measured value (3)
Pressure (draught & differential)	Piezoelectric sensor	-10.00 ... 200.00 hPa	0.01 hPa	±1% measured value ±2 Pa ±1% measured value
Differential temperature	Calculated	0 ... 1250.0 °C	0.1 °C	
Air index	Calculated	0.00 ... 9.50	0.01	
Excess air	Calculated	0 ... 850 %	1 %	
Stack loss	Calculated	0.0 ... 100.0 %	0.1 %	
Efficiency	Calculated	0.0 ... 100.0 %	0.1 %	
Efficiency (condensing)	Calculated	0.0 ... 120.0 %	0.1 %	
Smoke index	External instrument	0 ... 9		



Display



Electrochemical sensor

All data relative to concentration accuracies are referred to an instrument operating at a constant temperature within the entire operating range (5 °C ... 45 °C) being in operation for at least 15 minutes, powered by its internal battery and after completion of auto zero procedure.

Note: (1) the maximum O₂ value displayed depends on the type of fuel;

(2) Max. display includes error of the external sensor (Pt100 class Tc100-0.5 max. error);

(3) stated precision includes error of the external sensor (type Pt100, max. error class Tc100-0.5);

(4) error rate > greater than 250 hPa may permanently damage sensors or impact on their characteristics.



Prism Gas Detection Pvt Ltd

213, Oshiwara Industrial Centre, New Link Road, Goregaon (W),
Mumbai - 400104. ♦ Tel. : 2876 1387 ♦ Fax : (91 - 22) 2876 5116