

PCA® 3 Combustion Analyzers

Full-color graphic display for superior visibility

The portable, handheld PCA 3 enables on-demand or semi-continuous sampling of light industrial, commercial, and residential furnaces, appliances, and boilers. All units measure O₂ and CO; versions with NO, high-range CO, SO₂, and NO₂ sensors are available below. Analyzers also calculate combustion efficiency, excess air, carbon dioxide, and NO_x values.

- Install up to four B-Smart® sensors in the field for more measurement capability—call for details
- Full-color graphic display with zoom feature, backlight, and auto-dimming to conserve battery life
- Intuitive user interface for easy menu navigation
- Multilingual display
- Manually store up to 500 tests for later download or printing
- Additionally, log up to 500 more readings at preselected intervals to provide test information over changing environmental conditions
- USB interface and software for data download
- Performs combustion calculations for ten different fuels
- Rugged metal gas and draft probe connections add strength and durability for field use
- Standard or kit versions; kit versions include an infrared printer with batteries for data capture



86505-31

SPECIFICATIONS		
Parameters	Measuring range	Accuracy
O ₂	0.1 to 20.9%	±0.3% O ₂ (flue gas)
CO	0 to 4000 ppm	5% of rdg or 10 ppm from 0 to 2000 ppm; 10% of rdg from 2001 to 4000 ppm
CO (high)	4000 to 20,000 ppm	—
NO	0 to 3000 ppm	±5% of rdg or 5 ppm, whichever is greater, from 0 to 2000 ppm
NO ₂	0 to 500 ppm	±5% of rdg or 5 ppm, whichever is greater
SO ₂	0 to 5000 ppm	±5% of rdg or 10 ppm, whichever is greater, from 0 to 2000 ppm
Draft	-72 to 72" WC	±0.02" WC from -1 to 1" WC; ±2% of rdg from -10 to 10" WC; ±3% of rdg from -40 to 40" WC
Stack temperature range	-4 to 2192°F (-20 to 1200°C)	±4°F from 32 to 255°F; ±6°F from 256 to 480°F; ±8°F from 481 to 752°F
Ambient temperature range	-4 to 999°F (-20 to 537°C)	±2°F from 32 to 212°F
Combustion efficiency (calculated)	0.1 to 100%	
Excess air (calculated)	1.0 to 250%	
NO _x (NO + NO ₂ calculated)	0 to 3500 ppm	
Fuels	Natural gas, oil #2, oil #4, oil #6, propane, coal, wood, kerosene, bagasse, digester gas	
Display	Full-color graphic display, 320 x 240 pixels	
Dimensions (W x H x D)	3" x 9" x 2" (76 x 229 x 51 mm)	
Power	Four AA batteries, approximately 10 hours battery life	

What's included: 12" (305 mm) L probe assembly, three replacement filter elements, protective boot with magnet, Fyrite® user software, USB cable, hard carrying case, and four AA batteries. Kits also include: IrDA printer and four extra AA batteries.

Catalog No.	Model No.	Description	Parameters
TS-86505-31	0024-8440	PCA 3 analyzer	O ₂ , CO
TS-86505-32	0024-8441	PCA 3 analyzer	O ₂ , CO, NO
TS-86505-33	0024-8442	PCA 3 analyzer	O ₂ , CO, CO (high)
TS-86505-34	0024-8443	PCA 3 analyzer	O ₂ , CO, SO ₂
TS-86505-35	0024-8444	PCA 3 analyzer	O ₂ , CO, NO, NO ₂
TS-86505-36	0024-8445	PCA 3 analyzer	O ₂ , CO, NO, SO ₂
TS-86505-37	0024-8446	PCA 3 analyzer	O ₂ , CO, NO, CO (high)
TS-86505-38	0024-8447	PCA 3 analyzer kit with IrDA printer	O ₂ , CO
TS-86505-39	0024-8448	PCA 3 analyzer kit with IrDA printer	O ₂ , CO, NO
TS-86505-40	0024-8449	PCA 3 analyzer kit with IrDA printer	O ₂ , CO, CO (high)
TS-86505-41	0024-8450	PCA 3 analyzer kit with IrDA printer	O ₂ , CO, SO ₂
TS-86505-42	0024-8451	PCA 3 analyzer kit with IrDA printer	O ₂ , CO, NO, NO ₂
TS-86505-43	0024-8452	PCA 3 analyzer kit with IrDA printer	O ₂ , CO, NO, SO ₂
TS-86505-44	0024-8453	PCA 3 analyzer kit with IrDA printer	O ₂ , CO, NO, CO (high)
Accessories			
TS-09386-01	—	Replacement batteries, AA. 4/pk	