# PCA® 400 Combustion and Emissions Analyzer

For Commercial and Industrial Applications





# DESCRIPTION

Bacharach's PCA® 400 is a handheld versatile combustion and emissions analyzer for commercial and individual applications. The analyzer may be configured for up to 4 gas sensors, including  $O_2$ , CO, NO, NO $_2$  and  $SO_2$ . The PCA® 400's portable and durable design is ideal for testing, tuning, and maintaining burners, engines, furnaces and variety of other commercial and industrial combustion applications. The analyzer also features Bluetooth® communications which allows users to view real-time data send customizable reports from their compatible smart phone.

|                                       | ₹100% <b>1</b> 11:24 AM |
|---------------------------------------|-------------------------|
| ≡ COMBUSTION TEST  Fuel : Natural Gas |                         |
| O <sub>2</sub>                        | 4.0 %                   |
| со                                    | 12 ppm                  |
| Eff                                   | 82.7 %                  |
| CO <sub>2</sub>                       | 9.6 %                   |
| T-Stack                               | 372° F                  |
| T-Air                                 | 68.9° F                 |
| EA                                    | 20.7 %                  |
| NO                                    | 18.9 ppm                |
| ▶ □                                   | 8 0                     |



| FEATURES                                                                          | BENEFITS                                                                                      |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Up to 4 Gas Sensors (O <sub>2</sub> , CO, NO, NO <sub>2</sub> & SO <sub>2</sub> ) | Versatile analyser for many commercial and industrial applications                            |
| Sample Conditioner                                                                | Superior accuracy for low NOx and SOx applications                                            |
| Real-Time PC Software                                                             | View and save live data for easy compliance reporting                                         |
| Combustion App                                                                    | Quickly create custom reports with comments and send via email (available for Android & iOS). |
| Long Life O₂ Sensor<br>(5 Year Warranty)                                          | Reduced maintenance cost and downtime                                                         |
| Automatic Dilution and<br>Sensor Protection                                       | Protects sensors in the toughest combustion environments, extending life                      |
| Dual Bluetooth and<br>IR Printer with magnet                                      | Print combustion and emissions reports in the field                                           |
| Precalibrated,<br>B-Smart® Sensors                                                | Quick and easy sensor replacement in the field & reduced downtime (doesn't require cal. gas)  |



Automatic delivery of precalibrated sensors to your door to eliminate field calibration and minimize maintenance

## **HOW TO CONTACT US:**

US Customer Service: +1 724 334 5000 EU Customer Service: +353 1 284 6388 CAN Customer Service: +1 905 882 8985

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mybacharach.com

#### **FOR MORE INFO:**

Scan the QR code to learn more about the PCA® 400 and other Bacharach products.

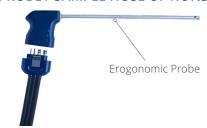


| SPECIFICATIONS              | DESCRIPTION                                                                                                                                       |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| O <sub>2</sub>              | 0 to 20.9%                                                                                                                                        |
| CO (high range)             | 0 to 40,000 ppm                                                                                                                                   |
| NO <sub>2</sub>             | 0 to 500 ppm                                                                                                                                      |
| CO-H <sub>2</sub>           | 0 to 10,000 ppm                                                                                                                                   |
| NO                          | 0 to 3,000 ppm                                                                                                                                    |
| SO <sub>2</sub>             | 0 to 5,000 ppm                                                                                                                                    |
| Fuels <sup>[1]</sup>        | Natural Gas, Coal, Oil 2/4/6, Propane, Wood / Biofuels,<br>Kerosene, Bagasse, Digester Gas, B5, Pellets, KOKS, LEG,<br>LPG, Butane and Wood Chips |
| Environmental<br>Conditions | Stack Temperature: -4 to 2192°F (-20 to 1200 °C)                                                                                                  |
|                             | Ambient Temperature: -4 to 999 °F (-20 to 537 °C)                                                                                                 |
|                             | Draft / Differential Pressure: ± 72 inch of H <sub>2</sub> O (± 179mB)                                                                            |

<sup>[1]</sup> Available fuels vary based on settings (North American or Siegert).

| PRODUCT DETAILS   | DESCRIPTION                                                                                                                                                                                  |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size (L × W × D)  | 10" × 3.8" × 2.5" (25.4 × 9.7 × 6.4 cm)                                                                                                                                                      |
| Weight            | 1.5 lbs. (0.68 kg) w/ Li-Ion battery pack                                                                                                                                                    |
| Power             | Rechargable Li-lon Battery ≈ 12 hours<br>4 × AA Disposable Lithium Batteries ≈ 12 hours<br>4 × AA Disposable Alkaline Batteries ≈ 5 hours<br>AC Adapter (100-240VAC @ 47-63 Hz) ≈ continuous |
| Display           | 4.3" (10.9 cm) backlit, color LCD with resistive touch interface                                                                                                                             |
| Display Languages | English, Spanish, French                                                                                                                                                                     |
| Memory            | 500 records                                                                                                                                                                                  |
| Communications    | Bluetooth® 4.0, USB 2.0 (micro-B), IrDA                                                                                                                                                      |
| Approvals         | CE & EN50379 Parts 1 and 2 (Siegert only)                                                                                                                                                    |
| Warranty          | 2 years for instrument, 5 years for O <sub>2</sub> sensor                                                                                                                                    |

### **PROBE / SAMPLE HOSE OPTIONS**



A variety of probe and sample hose options are available to customize the PCA® 400 for any application.

#### **ACTIVE SAMPLE CONDITIONER**



The optional sample conditioner's thermoelectric chiller helps users mantain a cool, clean and consistant sample by removing water vapor from the flue gas sample.

| PART NUMBERS* | DESCRIPTION                                                                                                                                                                                  |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2411-1112     | PCA® 400 (analyzer with O <sub>2</sub> , CO and NO sensors, 12" probe, 7.5' sample hose assembly, IrDA + Bluetooth® wireless printer and rugged protective carrying case)                    |
| 2412-1312     | PCA® 400 for NOx Measurement (analyzer with O₂, CO, NO and NO₂ sensors, 12" probe, 7.5' Viton™ sample hose assembly, IrDA + Bluetooth® wireless printer and rugged protective carrying case) |
| 2413-1312     | PCA® 400 for SOx Measurement (analyzer with O₂, CO, NO and SO₂ sensors, 12" probe, 7.5′ Viton™ sample hose assembly, IrDA + Bluetooth® wireless printer and rugged protective carrying case) |

<sup>\*</sup> Additional configuration options available.

