PGC5000 Series gas chromatographs
PGC5000A Generation 2 master controller

The new standard in industrial gas chromatographs

Measurement made easy

Overview

The PGC5000A Generation 2 master controller provides all analyzer system control functions and coordinates internal and external data activities for all of the PGC5000 Series ovens. The new controller also supports multiple smart oven configurations to maximize application flexibility while minimizing space and utility requirements. The Generation 2 controller is designed with a Real Time (embedded) Operating System (RTOS) to guarantee critical system uptime, security and deterministic transfer of data. The Human Machine Interface (HMI) includes a 10.4 inch true color touchscreen SVGA display, universal keypad and touch-pad mouse.

Features

Ease of use
- Graphics based touch screen HMI

Multiple configurations
- Supports multiple Smart Oven™ configurations
- Up to 4 PGC5000B ovens
- Up to 2 PGC5000C ovens
- One PGC5000C with up to 2 PGC5000B ovens

Communication interfaces
- Ethernet, OPC, MODBUS, 4 to 20mA analog outputs, VistaNET 2.0 compatible

Enhanced Data Storage
- Up to 7 days of chromatograms and reports via removable SSD card

Standard inputs / outputs
- Eight isolated 4 to 20mA outputs
  - Four digital outputs
  - Dedicated purge alarm
  - Dedicated common malfunction alarm
- Two additional configurable outputs

Application flexibility
- PGC5000B Smart Ovens target basic applications with a fixed set of features
- PGC5000C Smart Ovens target complex applications requiring multiple detectors for high application density
- PGC5007 oven targets flare gas monitoring and total sulfur process applications
- PGC5009 oven designed for fast temperature programmed simulated distillation analysis
### Specification

**Master controller**

**Environmental (enclosure)**
- Protected from weather
- IP 54, (NEMA 3 equivalent)

**Ambient temperature range**
- 0 to 50° C (32 to 122° F)

**Humidity**
- 95% relative humidity, non-condensing

**Dimensions (W x D x H)**
- 596.9 mm x 419.1 mm x 256.5 mm
  (23.5 in. x 16.5 in. x 10.1 in.)

**Weight**
- 20 kg (44 lbs) (minimum, configuration dependent)

**Mounting**
- Wall: 33 mm (1.3 in.) from wall with brackets
- Optional dolly with casters

**EMI / RFI considerations**
- Conform to class A industrial environment

**Electrical entries**
- Top

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**Safety area classification**

**CSA / NRTL**
- Class I, Division 1: gas groups B, C, D with type Y-purge
- Class I, Division 2: gas groups B, C, D Temperature Code T4

**ATEX / IECEx/ CN / KO**
- Zone 1: CE; II2G, Ex ib py IIB+H2 T4 Gb
- Zone 2: CE; II3G Ex nA IIB+H2 T4 Gb

**CU TR: INMETRO**
- Optional X-purge power interlock Ex d ib px IIB+H2 T4

**Purge wait time**
- 18.2 minutes (Class I, Division 1 / Zone 1 area)
  (hot, neutral, ground)

**Power (hot, neutral, ground)**
- Voltage: 100 to 240 VAC
- Frequency: 50 to 60 Hz
- Power consumption: 120 VA startup and steady-state operation (variable with installed options)

**Instrument air**
- Supply connection: ¼ inch tube, minimum
- Supply pressure: 414 kPa (60 psig) minimum
- Quality: Clean, oil free and –34° C, ( –30° F) dew point
- Instrument grade:
  - Flow rates – steady state purge
    - 2 to 25 l / min (0.75 to 0.78 ft³ / min) at 20° C,
    - Y-purge types
Trademarks

Ethernet is a registered trademark of Ethernet, LLC
OPC is a registered trademark of OPC Foundation
Modbus is a registered trademark of Schneider Automation