

### Comm1 and Comm 2 Pinouts/Terminations

PIN	RS-232	RS-485	RS-422
	COMM 1 (J8)	COMM 1 (J8)	COMM 1 (J8)
1	Power Out	Power Out	Power Out
2	Ground	Ground	Ground
3	Switched Power Out	Switched Power Out	Switched Power Out
4	Operate	Operate	Operate
5	Not Used	RRTS	RTS
6	Request To Send	Bus +	Transmit Bus +
7	Transmit Data	Bus -	Transmit Bus -
8	Receive Data	No Connection	Receive Bus +
9	Clear To Send (CTS)	No Connection	Receive Bus -
	COMM 2 (J10)	COMM 2 (J10)	COMM 2 (J10)
1	Power Out	Power Out	Power Out
2	Ground	Ground	Ground
3	Switched Power Out	Switched Power Out	Switched Power Out
4	Operate	Operate	Operate
5	Not Used	RRTS	RTS
6	Request To Send	Bus +	Transmit Bus +
7	Transmit Data	Bus -	Transmit Bus -
8	Receive Data	No Connection	Receive Bus +
9	Clear To Send (CTS)	No Connection	Receive Bus -
TERMINATIONS	Comm 1 (J9)	Comm 2 (J11)	
First or intermediate unit (RS-485)	Pins 2-3	Pins 2-3	
Last or only unit (RS-485)	Pins 1-2	Pins 1-2	
RS-232	Pins 2-3	Pins 2-3	

Figure 2: NGC and PGC 1000 Terminal Board

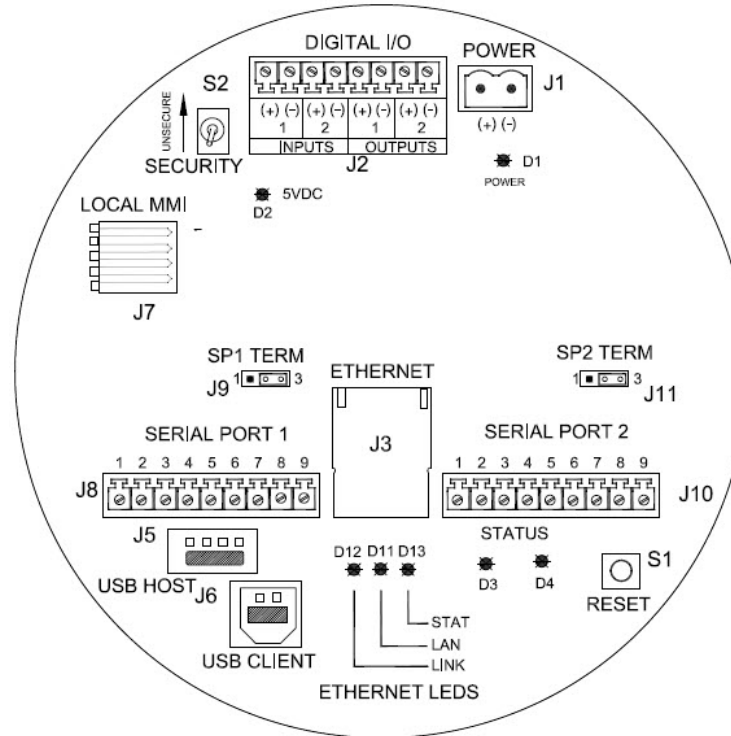


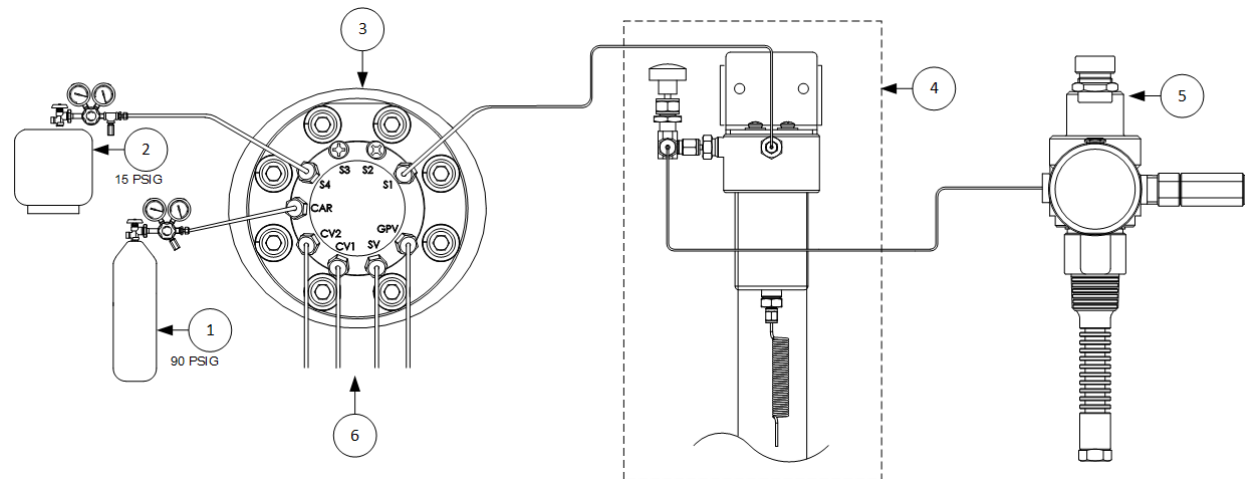
ABB MEASUREMENT & ANALYTICS

### NGC series and PGC 1000 Quick Start Guide



Figure 1: Tubing layout

#	Name
1	Carrier gas
2	Cal gas
3	Feed through assembly
4	Sample conditioning module
5	Sample probe
6	Vent lines



Save this guide. Use the code on the back to access user manuals and other product information.

Safety and compliance information is included with the device in the shipping packaging.

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## NGC and PGC 1000 Quick Start Guide

### Connect sample streams



**IMPORTANT NOTE:** Do not use any type of plastic, Teflon™ or Teflon-lined braided steel tubing. Use only good quality, clean, stainless steel chromatographic-grade transport tubing for carrier, calibration gas and sample lines. Use of poor-quality stainless-steel tubing will generate unsatisfactory results. **H2S applications require Sulfinert® tubing.**



**IMPORTANT NOTE:** Use only ultra-high purity grade carrier gas. Purge all lines prior to connecting to the device.



**IMPORTANT NOTE:** The transport tubing run for the sample conditioning modules can be up to 50 feet. Lengths longer than 50 feet must adhere to the rules of calculated lag time (see the NGC or the PGC 1000 User Manual).

If a sample conditioning module is not being used, the sample transport tubing should be 1/16-inch tubing and no longer than ten feet.

### Common Settings

- Set the carrier regulator to 90 PSIG.
- Set calibration blend/sample stream pressures to between 5-20 PSIG.
- Ensure valves are open.

### Power supply information

For a 12-volt power supply, 8 amps are required. Set the power supply to 14-14.5 volts. For a 24-volt power supply, 4 amps are required. Set the power supply to 25-26.5 volts.

Recommended wire size is 12 AWG.

See the NGC or the PGC 1000 User Manual for other applications, such as battery power.

### Startup using USB

After the unit has been powered up for a minimum of 2 hours for temperature stabilization, continue with the following steps:

- Verify that carrier, sample, and cal pressures are set correctly.

- Connect a USB cable (to connect using Ethernet, see the user manual).
  - Verify that ActiveSync/Windows Mobile Device Center connects to the NGC or PGC. For Windows 10 details, see Technical Bulletin 201, available by selecting **Downloads>Bulletin** on the product page. Use the scan codes on this page.
1. Start PCCU32.
  2. Click the Setup icon.
  3. Select **ActiveSync** from connection types.
  4. Close the setup window.
  5. Select **Connect** from the Toolbar.
  6. Select **Entry Setup**, then **Expert** view.
    - a. The Start-up Wizard will initialize to assist with analyzer setup. If you choose not to use the Wizard or it fails to start, continue with the next step.
  7. Select **Show Tree View** (on the left).
  8. Select **Totalflow** from top of the tree.
  9. In the Station Setup Tab, under the Value Column, select **Totalflow**.
  10. Change the default ID.
  11. Click **Send**.
  12. Select **Analyzer Operation** in the tree view (on the left) to open the **Main Screen**.
  13. Select the **Stream Sequence** tab and enable the streams to be used.
  14. Click **Send**.
  15. Select **Diagnostics** (on the right) to verify that diagnostic tests were successful.
    - Unused streams will fail stream tests since no pressure is applied.
  16. Select **Calibration** (on the right).
    - a. Enter calibration blend information from certificate.
    - b. Verify that the blend total equals 100%.
  17. Click **Send**.
  18. Close the window.
  19. Select **Peak Find** (on the right). Verify that **Manual** is selected. (Do not use Auto).
  20. Select **Run Single Cycle** and review the chromatogram:
    - Verify that all peaks are gated and labeled.
    - Verify that the reference peaks have appropriate retention times and there are no alarms.
  21. Click **CAL** (on the left side of the main screen).



**IMPORTANT NOTE:** Calibration will take approximately 30 minutes.

After calibration is accepted:

1. Select **stream 4** to run calibration gas one more time.

After the stream starts:

2. Select **HOLD** so it runs only one time. This will update stream data.
3. Verify stream 4 results are acceptable.
4. Select **Run** (on the left) to put the unit in service analyzing process stream(s).

To save the configuration:

1. Click the **Save & Restore** icon from the PCCU toolbar.
2. Click **SAVE** and follow instructions given.

### TCP connection

Refer to the User manual for setup instructions.

Use IP address: **169.254.0.11**.

### Gas chromatograph product pages



PGC 1000



NGC 8200 series

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