J QuadraTherm°640i/780i



Quick Install Guide

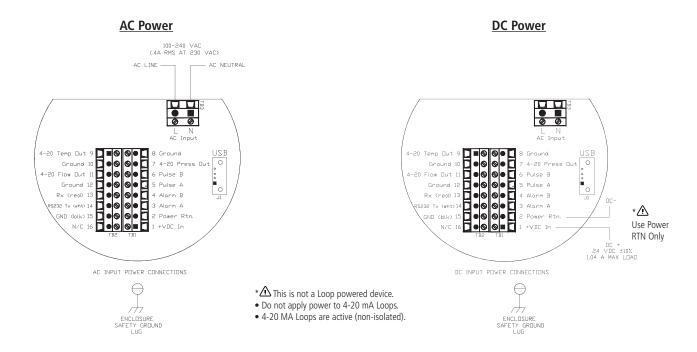
A copy of this Quick Install Guide, the user software and the manual are also included on the product information CD included in your shipment.

Safety

1. Apply power only after reviewing the wiring diagrams in the "Installation and Wiring" section below or in Chapter 2, p. 11 of the Instruction Manual. Apply gas flow only after checking plumbing connections for leaks.

Installation and Wiring

- 1. Install the meter in the pipe. Make sure you have enough straight run pipe for your installation. See Figure 2-1, p. 12 of the Instruction Manual for the straight run requirements.
- 2. Connect AC or DC power per the meter configuration received. See the diagrams below or Figures 2-5, 2-6, and 2-7 on pages 18-20 in the Instruction Manual for more information.



- 3. After a short start-up routine, the meter will begin displaying measured variables using the setup as supplied to the factory from your application data sheet. You will access this data via the display (if ordered) or the Smart Interface Program (SIP) if connected and installed on your computer. The meter will scroll through three screens: flow and temperature, pressure (if ordered), and totalizer. See Chapter 3: Operating & Programming, p. 25 in your Instruction Manual.
- 4. Connect the analog outputs (if you are going to use them). The meter comes with three non-isolated outputs for flow, temperature, and pressure.

Using The Push Buttons and Display

- 1. In general terms, the display menu system consists of a Main Menu, the Set-Up Menu, and a Sub-Menu used to program each item in the Set-Up Menu. There is also a series of data entry or pull-down screens to enter your set-up data for each parameter. Menus may be adjusted using the six buttons on the front of the unit: up ▲, down ▼, left ◀, right ▶, enter ◄, and escape/cancel ⊗.
- 3. While editing information, the screen data "flashes" to show that you are actively editing. Pressing the enter 🛁 key after you are done editing will permanently write the data to the meter's memory while pressing the escape/cancel 🖄 key returns to the last previous menu value. For more detailed information about operating your push button display, see Chapter 3: Operating & Programming, p. 25-28 in your Instruction Manual.

Changing Application Information In The Field Using qTherm Dial-A-Gas[®] & Dial-A-Pipe[™]

The meter comes programmed from the factory with your application information, but it is easy to change this information using Sierra's unique qTherm Dial-A-Gas[®] and Dial-A-Pipe[™] feature. You can access both features using either the push buttons on the display or an RS-232 connection between your computer and the meter using the provided Smart Interface Program (SIP) Software.

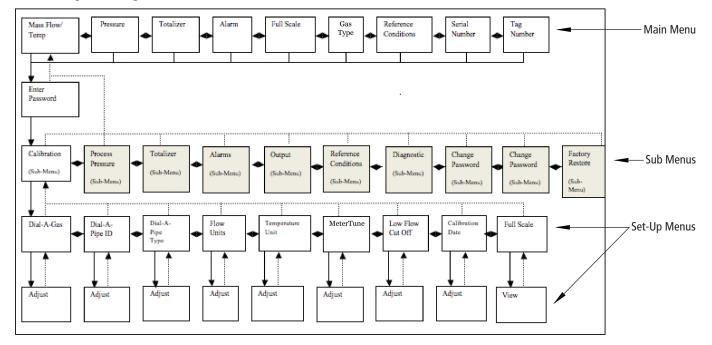
Using Your Display to Change Gas and Pipe Size: qTherm Dial-A-Gas & Dial-A-Pipe

- 1. To access this Dial-A-Gas and Dial-A-Pipe information in the Sub-Menu of the display, enter the meter's password. From the scrolling menu, press the enter \leftarrow key, and you will be asked for a password. Enter 0000 for the password (it is already there by default and can be changed later); then press the enter \leftarrow key. You will arrive at the Calibration Sub-Menu. From here, press the enter \leftarrow key. See menu navigation diagram below or p. 28-29 in the Instruction Manual for more information.
- 2. qTherm Dial-A-Gas: Change Gas

To change and select your gas, the display will show "Dial-A-Gas" with the principal gas listed from your application datasheet (ADS), hit the enter key, and it will begin to flash; use the vertex buttons to scroll through the other gase. Hit enter to select another gas. See sub-menu diagram below or p. 30 of the Instruction Manual for more information about using the Dial-A-Gas feature.

3. qTherm Dial-A-Pipe: Change Pipe Size

Go to the Dial-A-Pipe menu to set the internal diameter (ID). Hit enter (\checkmark) to enter a new pipe ID using the \checkmark buttons to enter the desired value, and the enter key (\checkmark) to save the value. Use a similar process to enter the pipe type (ex: stainless steel-smooth) and to select your engineering units. See table below or p. 29-32 in the Instruction Manual for more information



Menu Navigation Diagram

Using RS-232 & Smart Interface Program (SIP) Software to Change Gas and Pipe Size: Dial-A-Gas & Dial-A-Pipe

- 1. First, install the RS-232 cable (provided) using the diagram to the right.
- 2. Next, install the SIP program (see p. 61 in Instruction Manual):
 - Click on the file (640i & 780i Smart Interface Program). This file is self-extracting.
 - Follow instructions for installing the files.
 - The process takes 5 to 10 minutes total, • depending on speed of your computer.
- 3. Run the program (note meter must be powered on to run the SIP program). The main home page interface (see Figure: 1 below).
- 4. From the home page, select the appropriate Com Port, and the SIP will read the meter's parameters as defined by your application datasheet.

Figure: 1			
CuadraThem® 640i & 780i Smart	OUDDICT THE SHORE THE SHORE THE SHORE PROFILE THE SHORE		
METER DATA Calibration Date Manufactured Date PCA Revision XXOX Firmware Revision Serial Number	N/A PIPE: X XXXX SCFM XXXXX SCFM XXXX SCFM XXXX SCFM XXXX SCFM XXXX SCFM	METER CONTROL NCTION SELECTOR	
Port Not Active!		Select Port:	-

5. qTherm Dial-A-Gas & Units

To change your gas and units, select the Dial-A-Gas & Units button on the home page under the meter control section. Use the pull down menus on the Dial-A-Gas screen (Figure: 2 below) to select your gas and units. Select Save and Exit to return to the main menu screen. See p. 66-68 in the Instruction Manual.

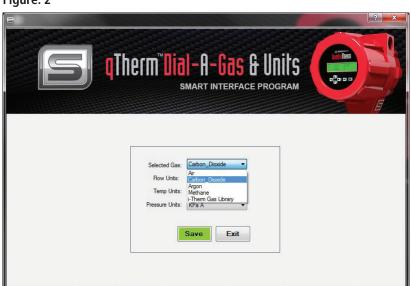


Figure: 2

7 4-20 Press Out

2 Power Rtn

L +VDC Ir

0

0

Crop Luc 9
 Ground 10
 Ground 11
 Go Go C
 Ground 12
 Go C
 Ground 12
 Go C
 Go C

©|e

© = 🖸

RS 232 COMMUNICATION

4-20 Temp Out '

-20 Flow Out 1

NZC 1

TO SERIAL PORT DB9 D-CONNECTOR

PIN 3 RS 232 RECEIVE

PIN 2 RS 232 TRANSMIT PIN 5 <u>RS 232 GROUND</u>

6. qTherm Dial-A-Pipe

To change your pipe properties select the Dial-A-Pipe button on the home screen (Figure: 1). Use the pull down menus in the qTherm Dial-A-Pipe screen (Figure: 3 below) to select your pipe properties. Select Save and Exit to return to the home screen. See p. 65 in the Instruction Manual.

Figure: 3		
	' M[™]Dial-A-Pipe smart interface program	
	 English	
Pipe Schedu	le: DN25	
Inside Diamet	er: 28.500000	
Diameter Un	its: Millimeters 👻	
Ріре Тур	e: Stainless Steel-rough 🗸	
	Save Exit	
		~

7. Your meter set-up is now complete. Your updated meter parameters can be viewed from the SIP main screen.

5		ICTM [®] 6401/7 SMART INTERFACE PRO		E
METER DATA	METER DISPLAY		METER CONTROL	
Calibration Date				E
MM/DD/YYYY Manufactured Date		FS: 0.00 SCFM	Dial-A-Gas & Units 🔹	
MM/DD/YYYY	CO2	PIPE: 28.5000 mm	Dial-A-Pipe	
PCA Revision	0.033 SCFM 0.00 SCF		Dial-A-Gas & Units	
PCA:B				
Firmware Revision			Alarm Setpoint	
v1.0.70	T: 98.81 °F	Low Alarm: OFF	ValidCal Diagnostics	
Serial Number 12345	P: Not Active	0.000 N/A	MeterTune (Span)	
			Exit	5
Port is Active.			Select Port: COM3	•

For More Information

If you need more in-depth instructions, please refer to your instruction manual. A downloadable version of the manual can be found on the Documents & Downloads page of our website www.sierrainstruments.com/quadrathermIM

Contact Us

Email Technical Support: service@sierrainstruments.com • 24 Hour Live Help Online: www.sierrainstruments.com/livehelp • Telephone Technical Support–North America: 800.866.0200 or 831.373.0200 • Europe, Middle East, Africa + 31 72 5071 400 • Asia: + 8620 3435 4870