Quick Install Guide

This Quick Install Guide is applicable for the QuadraTherm® 640i/780i.

A copy of this Quick Install Guide, the QuadraTherm® 640i/780i HART® manual, and the individual product instruction manual are included on the digital communication information CD included in your shipment. This information is also available for download.

The HART Communication Protocol is an acronym for (Highway Addressable Remote Transducer). The HART Protocol makes use of the Bell 202 Frequency Shift Keying (FSK) standard to superimpose digital communication signals at a low level on top of the 4-20mA current loop. Point-to-point (analog/digital) and multi-drop (digital only) modes are supported. The 640i/780i device description (DD) files can be downloaded here. The primary, secondary, tertiary, and quaternary variables have been configured at the factory.

Connecting to the HART Network
You will need the following to connect HART to your device:

1. HART equipped 640i/780i flow meter.
2. HART 375 or 475 communicator or personal computer (PC) equipped with a HART modem.
3. A power supply for the flow meter rated at 24 VDC +/- 10% (1.04A load maximum).

Installation Steps
1. Connect the flow meter to the HART communicator or PC to the 4-20 mA loop.
2. Power up the flow meter using terminal 1 and 2.
3. Start the communicator or PC to setup and view the available variables.

![Diagram](image1.png)

Figure 1: Typical point-to-point application with non-isolated 4-20 mA loop

![Diagram](image2.png)

Figure 2: Multi-drop, digital signal only. 4.20mA must be set to a fixed 4 mA (refer to 640i/780i instruction manual) for 4-20mA adjustment control, non-isolated 4-20 mA loop

Online Menu
The top level menu of the HART communicator is presented below.