

This Quick Start Guide is for the QuadraTherm 640i/780i HART Thermal Mass Flow Meter and provides easy setup and installation instructions.

IMPORTANT! Before installing and using your flow meter, please read this document carefully and follow the steps below.

Step 1. Download Instruction Manual

Please download and read the [QuadraTherm® 640i/780i Instruction Manual](#) and the [QuadraTherm® 640i/780i HART Manual](#) from our website before installing your meter.

Step 2. Download the Device Description (DD) files

Please download the following QuadraTherm 640i/780i HART DD Files for the Field Communicator and PC Programs:

[QuadraTherm 640i/780 DD Files](#) (Field Communicator)

[QuadraTherm 640i/780i DD Files](#) (PC Programs).

The HART Communication Protocol is an acronym for (**H**ighway **A**ddressable **R**emote **T**ransducer). 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 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/740i 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 radius at 24 VDC +/- 10% (1.04A load maximum) or 100 to 240 VAC (0.4 Amps RMS at 230 VAC) if the AC power option was ordered.

Installation Steps

1. Connect the flow meter to the HART communicator or PC to the 40–20A loop.
2. Power up the flow meter using terminal 1 and 2 for DC power, or use the AC terminal blocks for the optional AC power if ordered.
3. Start the communicator or PC to set up and view the available variables.

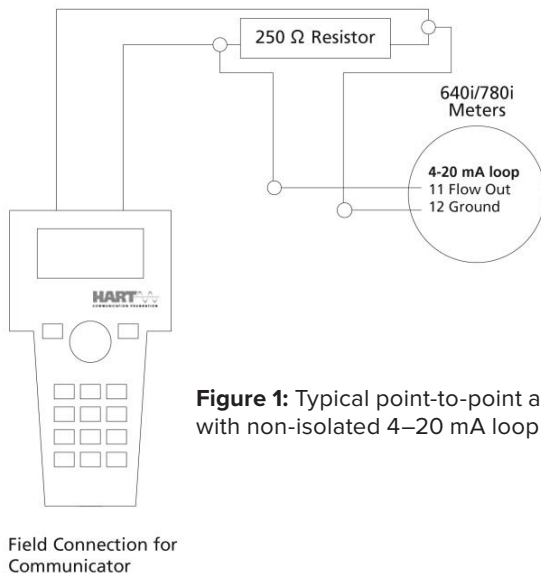


Figure 1: Typical point-to-point application with non-isolated 4–20 mA loop

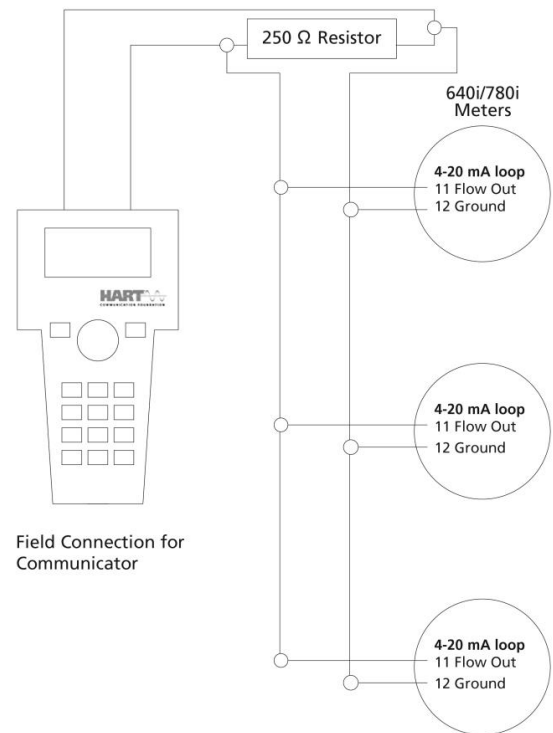
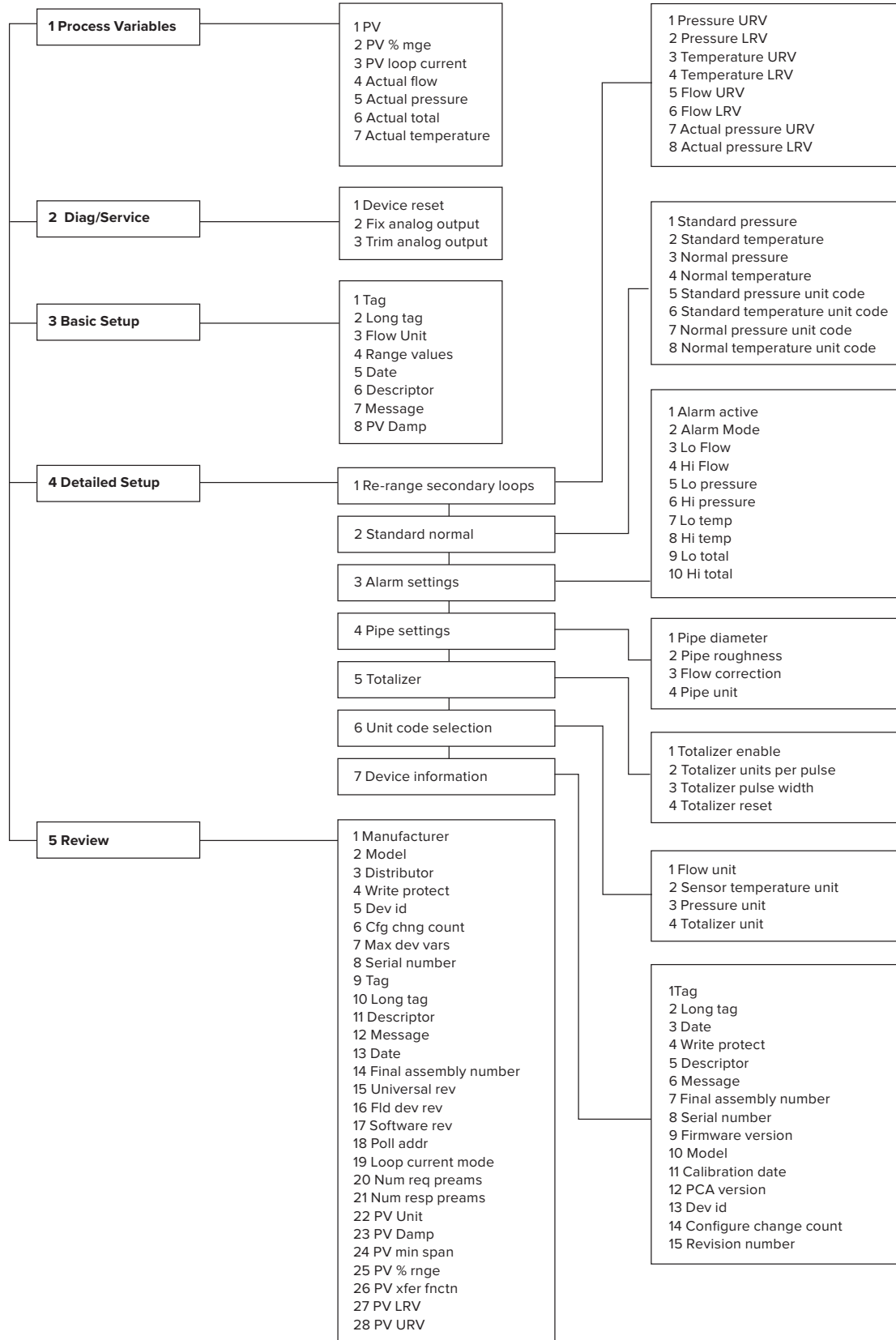


Figure 2: Multi-drop, digital signal only, 4-20mA must be set to a fixed 4 mA (refer to 640i/780i instruction manual) for 4–20 MA adjustment control, non-isolated, 4-20 mA loop.

Online Menu

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



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