



Quick Install Guide

This Quick Install Guide is applicable for models: 640S, 760S, 780S, and 780S-UHP.

A copy of this Quick Install Guide, the 600/700 Series HART manual and the 640S and 780S product instruction manuals are also included on the digital communication information CD included in your shipment. This information is also available for [download](#).

The 600/700 Series HART support only the universal command set. A specific device description (DD) is not available, use the generic (DD). The Primary, Secondary, Tertiary, and Quaternary Variables have been configured at the factory.

Connecting to a HART Network

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

1. HART equipped 640S, 760S, or 780S Series flow meter.
2. A HART 375 or 475 Communicator or personal computer (PC) equipped with a HART modem.
3. A power supply for the flow meter rated at 18 to 30 VDC@625 mA (regulated).

Installation Steps

1. Connect the flow meter to the HART communicator or PC to the 4-20 mA loop. See below.
2. Power up the flow meter. Terminal 1 and 2.
3. Start the Communicator or PC to setup and view the available variables.

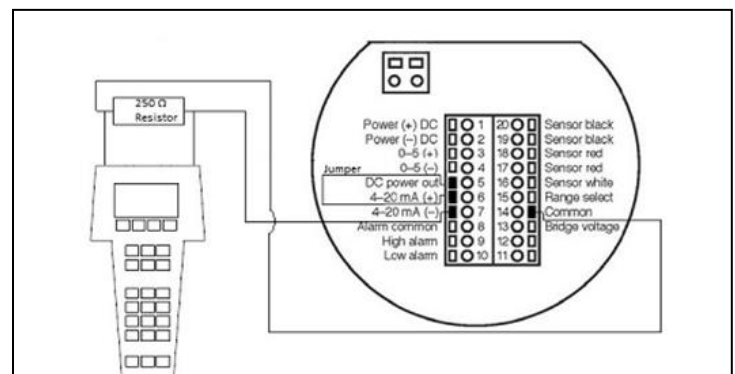


Figure 1: Point to point with Non-Isolated 4-20 mA loop

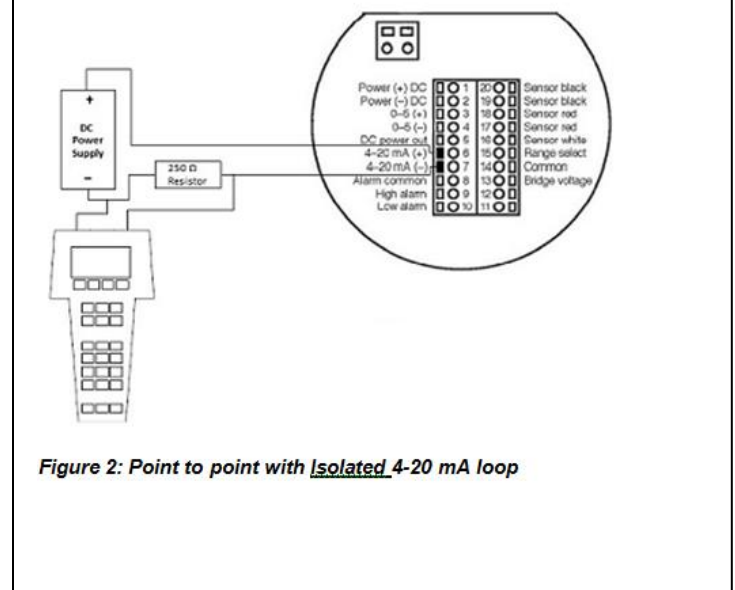


Figure 2: Point to point with Isolated 4-20 mA loop

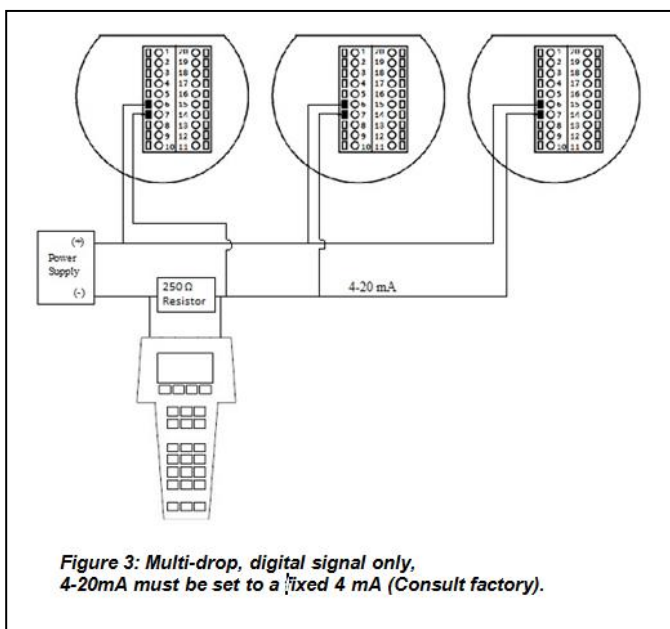


Figure 3: Multi-drop, digital signal only, 4-20mA must be set to a fixed 4 mA (Consult factory).

Commands Implemented

Command Number and Function	Data in Command	Data in Reply & Size
1 Read PV	Read Variable Flow Value, and Flow Units	Byte 0 PV unit code Byte 1-4 Primary variable
2 Read Current & Percentage of range	Read Primary Variable	Byte 0-3 current (mA) Byte 4-7 % of range
3 Read Current & four variables	Flow Totalizer User Full Scale K-Factor	Byte 0-3 Current Byte 4 PV unit code Byte 5-8 PV Byte 9 SV unit Code Byte 10-13 SV Byte 14 TV unit Code Byte 15-18 TV Byte 19 FV unit Code Byte 20-23 FV
12 Read message	None	Byte 0-23 message
13 Read tag descriptor, date	None	Byte 0-5 Tag A Byte 18-20 date D
14 Read PV Sensor information	Flow Value	Byte 4-7 Upper sensor limit Byte 8-11 Lower sensor limit Byte 12-15 Minimum span
15 Read PV output information	Flow Value	Byte 2 Range values unit code Byte 3-6 Upper range value Byte 7-10 Lower range value
16 Read final Assembly number	None	Byte 0-2 final assembly number
38 Reset Configuration changed flag	None	None
42 Master Reset	None	None
48 Read additional transmitter status	None	Byte 0 -1 = status Byte 2 = com status
50 Read Dynamic Variable Assignments	Flow for PV Totalizer for SV U/F for TV K-Factor for FV	Byte 0 Device Variable Code for PV Byte 1 Device Variable Code for SV Byte 2 Device Variable Code for TV Byte 3 Device Variable Code for FV
148 Read Device Variable Upper Range	User Full Scale for TV	Byte 1-4 Upper Range data