This Quick Install Guide is applicable for all InnovaMass® and InnovaFlo® models: 240 and 241.

A copy of this Quick Install Guide, the InnovaMass 240/241 HART manual and the 240/241 Series product manual are also included on the digital communication information CD included in your shipment. This information is also available for download.

Connecting to a HART Network

The HART Communications Protocol (Highway Addressable Remote Transducer Protocol) is a bidirectional digital serial communications protocol. The HART signal is based on the Bell 202 standard and is superimposed on 4-20 mA Output 1. Point-to-point (analog / digital) and multi-drop (digital only) modes are supported. Burst mode is not supported. The Innova-mass 240/241 Device Description (DD) can be downloaded at the HARTcomm.org website under "INNOVAMASS".

Application Wiring

Figure 1: Typical Point to Point Application

Figure 2: Typical Multi-Drop Application Wiring

Note: The DC requirements to provide the 4mA loop current for each meter varies. Consult your HART modem manufactures documentation for specific requirements.
Installation Steps
The top level menu is presented below. For drill down menus, see 240/241 Series HART Manual, Chapter 2.

Online Menu

1 Device Setup
  1 Display Unit
    1 Mass flow unit
    2 Vol unit
    3 Temp unit
    4 Energy flow unit
    5 Line press unit
    6 Dens unit
    7 Totalizer units
    8 Std & Norm Cond

  2 Analog Output
    To Analog Output Menu

  3 External Loop
    1 External Input
    2 Set Ext. 4 mA
    3 Set Ext. 20 mA

  4 Meter Display
    1 Disp Cycle
    2 Disp Digits
    3 Disp Damping
    4 Init Displ.
    5 Disp Show Hide

  5 Alarm Setup
    1 Alarm Status
    2 Alarm 1 Setup
    3 Alarm 2 Setup
    4 Alarm 3 Setup
    5 Records in Log
    6 Read Alarm Log
    7 Alarm Log Clear

  6 Totalizer
    1 Total
    2 Totalize
    3 Amount/Pulse
    4 Total 2
    5 Totalize 2
    6 Clear Totalizer

  7 Fluid Menu
    To Fluid Menu

  8 Energy Setup
    1 Meter Location
    2 Heating or Cooling
    3 % Return

  9 Device Menu
    Diagnostics
    Sensor Cal
    Review
    To Diagnostics Menu
    To Sensor Cal Menu
    To Review Menu

2 Process Variables
  1 Mass Flo
  2 Vol
  3 Temp
  4 Temp 2
  5 Delta Temp.
  6 Energy flo
  7 Press
  8 Dens
  9 Totl
  10 Total 2

3 PV is
  4 AO1 Out
  5 PV % mge
  6 Alarm Status

8 Diagnostics
  To Diagnostics Menu

9 Calibration Review
  From Sensor Cal Menu, Calibration Review

From Sensor Cal Menu, Calibration Review