

# Digital Setpoint Control for Fisher® FIELDVUE™ DVC6200, DVC2000, and DVC6000 Digital Valve Controllers

## 1. Digital Valve Controller Setup

### A. Electrical Power

Set the digital valve controller to PT-PT or MULTI-DROP.

For example, figure 1 shows the PT-PT/MULTI-DROP switch, which is located on the main electronics board, for the DVC6200 HW2 digital valve controller.

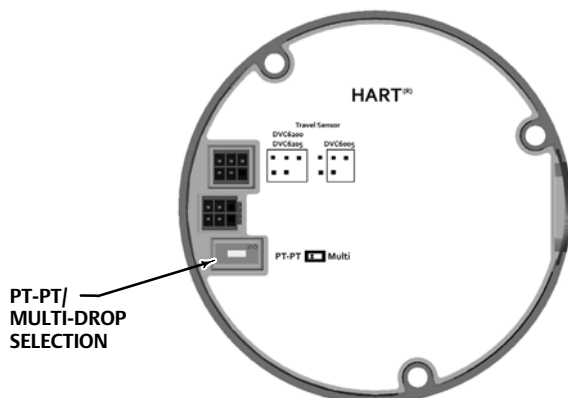
**Voltage** -- ensure the switch is set in the “MULTI-DROP” position. The current will be fixed around 8.3 mA with a 24 V power source.

**Milliamp current** -- ensure the switch is set in the “PT-PT” position. Milliamp signal power to the instrument should be set to a value between 6 and 20 mA.

### Notes

- Factory default is switch set to PT-PT.
- For Multi-Drop and 24 V power a LC340 Line Conditioner may be required to ensure quality HART® communications.
- For Point-to-Point and a milliamp powered system a HF340 HART filter may be required to ensure quality HART communications.
- The DVC2000 does not have a PT-PT / MULTI-DROP switch; it only uses a milliamp current.

Figure 1. PT-PT or MULTI-DROP Selection



Using a Field Communicator or AMS Device Manager verify or set the following:

- B. Control Mode set to “Digital”
- C. Restart Control Mode set to “Digital”
- D. Instrument mode set to “In Service”

If additional product information is needed refer to Related Documents on page 5.

## 2. 775 THUM™ Setup

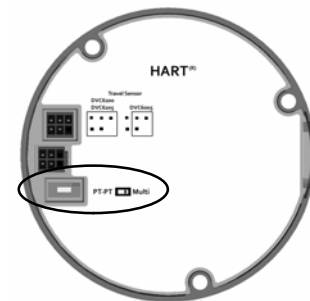
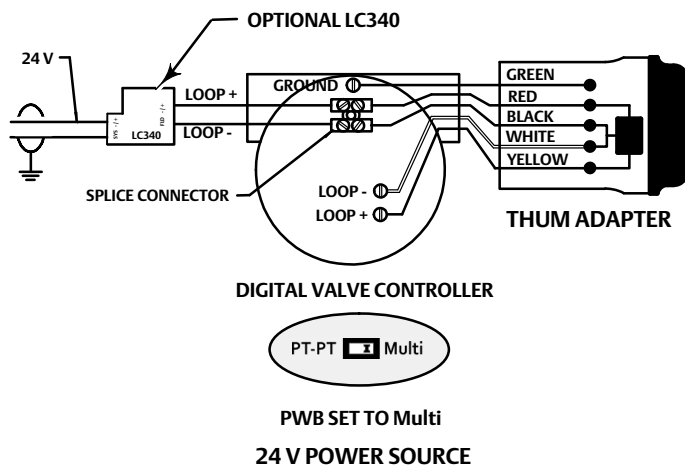
### A. Electrical

Wiring diagrams are shown in figure 2.

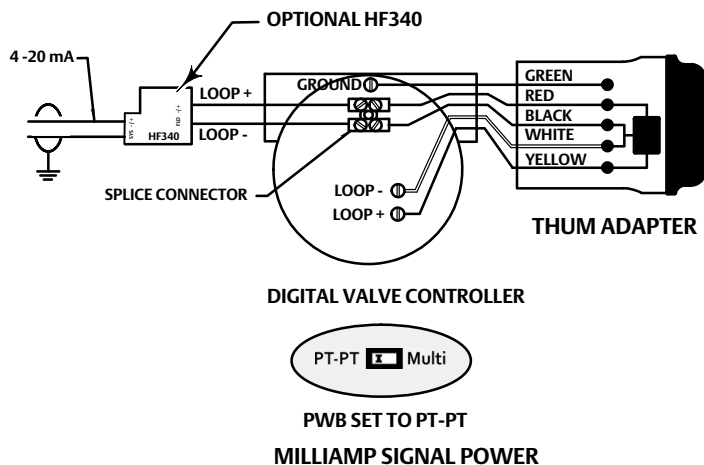
#### Notes

- This configuration is only appropriate for one digital valve controller and one THUM adapter.
- The THUM adapter requires up to 2.5 VDC additional compliance voltage above and beyond the digital valve controller requirements.

Figure 2. Wiring Diagrams



PWB— PT-PT/MULTI SWITCH LOCATION



## B. Configuration

Using a 775 THUM *WirelessHART*® adapter, map either “PV, SV, TV, QV” or “Process Variable with STATUS”; this allows the Gateway to see TRAVEL\_SETPOINT.

# 3. Wireless Gateway Setup

## A. Map TRAVEL\_SETPOINT

See figure 3 and 4 for Gateway settings.

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### Notes

- Requires a Rosemount® 1410 or 1420 Smart Wireless Gateway version 4.5 or later.
  - Best practice is to use the latest available software or firmware version for all products.
  - Do not map to the THUM adapter.
  - If TRAVEL\_SETPOINT does not show up in the drop-down selection box in Modbus or OPC select Run Command Configuration on the THUM and reset update rates.
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Refer to Annex B of the appropriate HART Field Device Specification supplement for additional information on joining a digital valve controller to a wireless network using the THUM adapter. See Related Documents on page 5.

Figure 3. Mapping TRAVEL\_SETPOINT in Modbus

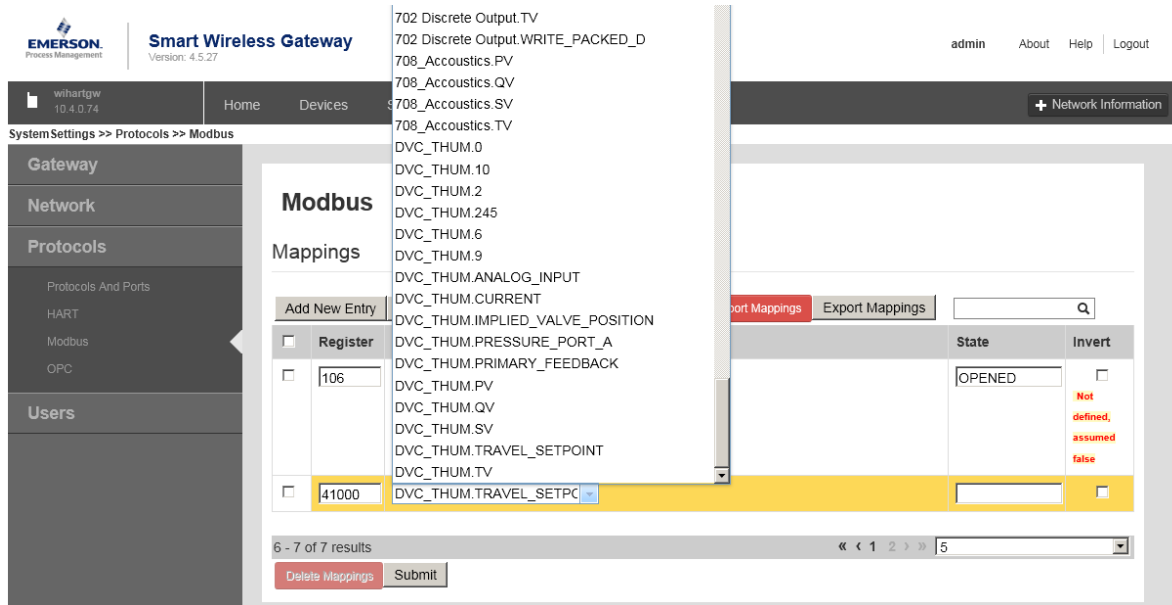
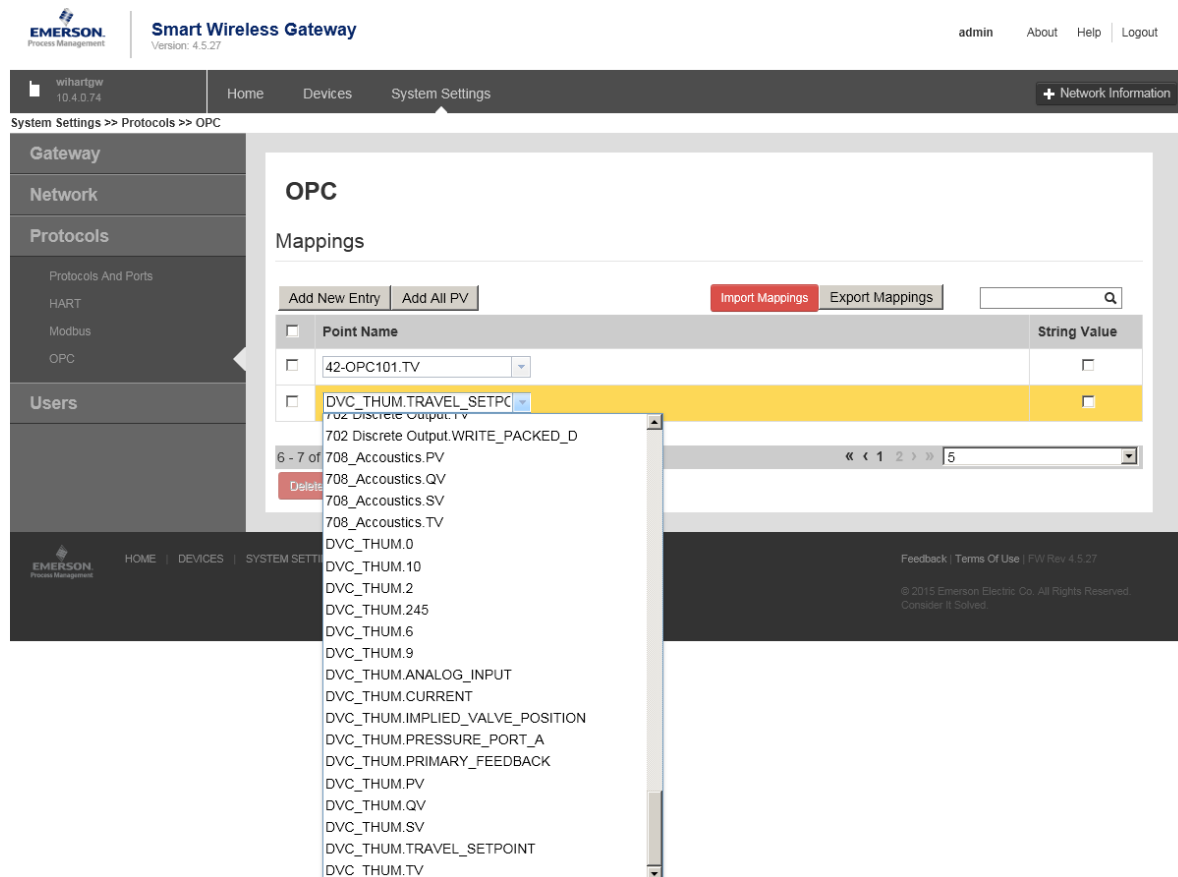


Figure 4. Mapping TRAVEL\_SETPOINT in OPC



## Related Documents

### DVC6200

- [DVC6200 Series Digital Valve Controller Quick Start Guide \(D103556X012\)](#)
- [DVC6200 HW2 Digital Valve Controller Instruction Manual \(D103605X012\)](#)
- [HART® Field Device Specification for DVC6200 Digital Valve Controller \(D103639X012\)](#)
- [DVC6200 HW1 Digital Valve Controller Instruction Manual \(D103409X012\)](#)
- [HART Field Device Specification for DVC6000 and DVC6200 HW1 Digital Valve Controller \(D103649X012\)](#)

### DVC6000 HW2

- [DVC6005 Series Remote Mount Digital Valve Controllers Quick Start Guide \(D103784X012\)](#)
- [DVC6000 HW2 Digital Valve Controller Instruction Manual \(D103785X012\)](#)
- [HART Field Device Specification for DVC6000 HW2 Digital Valve Controller \(D103782X012\)](#)

### DVC2000

- [DVC2000 Digital Valve Controller Quick Start Guide \(D103203X012\)](#)
- [DVC2000 Digital Valve Controller Instruction Manual \(D103176X012\)](#)
- [HART Field Device Specification for DVC2000 Digital Valve Controller \(D103783X012\)](#)

### DVC6000 (Supported)

- [DVC6000 Digital Valve Controllers Instruction Manual \(D102794X012\)](#)
- [HART Field Device Specification for DVC6000 and DVC6200 HW1 Digital Valve Controller \(D103649X012\)](#)

### Miscellaneous

- [HF340 Filter Instruction Manual \(D102796X012\)](#)
- [LC340 Line Conditioner instruction manual \(D102797X012\)](#)

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