Effective Use of FIELDVUE™ DVC6200 Instrument Diagnostics HART® Communication Protocol

Fisher™ FIELDVUE instruments offer state-of-theart diagnostic tools providing a window into the health of valve assembly assets. However, crafting a maintenance strategy to take advantage of these tools can be a daunting task. These basic steps will provide immediate value and build momentum toward broader utilization.



Commissioning/Diagnostic Tools

ValveLink™ Mobile with AMS Trex Device Communicator or 475 Field Communicator



AMS ValveLink SNAP-ON™ Software



ValveLink Solo & ValveLink DTM Software



Commissioning/Diagnostic Tests by Instrument Level

HART Communicating (HC) Tier Diagnostic Tests

- Collect a detailed setup and save dataset
- Perform a status monitor while in service and save the data set
 - Save data sets for 4mA, 12mA, and 20mA

Advance (AD) Tier Diagnostics

- Run HC Tier Tests
- Run a Total Scan
- Run a Valve Step Response Tests
 - 3 Set Point Step Test*
 - 0, 100, 0
 - Ramp Time = 0
 - Collection Time = 10 seconds
 - Performance Step Test*
 - Predefined 25 step test
 - Ramp Time = 0
 - Collection Time = 10 seconds





*Preconfigured tests (shown above) are available in ValveLink Software version 13.1 or greater

Performance Diagnostics (PD) Tier

- Run HC and AD Tier Tests
- Read Triggered Data (if Data Available Alert is active) and save dataset
- Run a One Button Sweep Diagnostic Test
- Run a Valve Friction Test and save dataset





Commissioning

Commissioning Steps

- Follow the mounting and installation guidelines per the Fisher FIELDVUE DVC6200 Quick Start Guide
- 2. Run the setup wizard
- 3. Run the Auto Travel Calibration
- 4. Configure the instrument, per the table to the right

| Setup Parameter | Factory Default Settings | Recommended Initial Settings |
|--------------------------------|--------------------------|--|
| HART Tag | As Specified On Order | Fill in Plant Information |
| Message | Blank | Fill in Plant Information |
| Descriptor | Blank | Fill in Plant Information |
| Date | Factory Calibration Date | Set to Current Date |
| Valve Serial Number | Blank | Fill in Valve Serial Number |
| HC Tier / AD Tier / PD Tier | | |
| Travel Deviation Alert Enabled | Yes | Yes |
| Travel Deviation Alert Point | 5% | 5% |
| Travel Deviation Time | 9.99 seconds | 5 seconds |
| Supply Pressure Alert Enable | Yes | Yes |
| Supply Pressure Alert Point | .345 Bar (5 psi) | Single Acting: 0.20 Bar (3 psi) above upper bench set Double Acting: 0.68 Bar (10 psi) |
| D. C. IAL IE II | | below nominal |
| Drive Signal Alert Enable | Yes | Yes |
| Diagnostic Data Avail Enable** | No | Yes |
| Alert Record Enable | No | Yes |
| Alert Record Not Empty Enable* | No | Yes |
| Alert Record Full Enable* | No | Yes |
| Cycle Counter | 0 | 0 |
| Travel Accumulator | 0 | 0 |
| PD Tier Only | | |
| Trigger Profile Enable** | Disabled | Enable |
| Trigger Profile Variables** | Travel / Travel Setpoint | Travel / Travel Setpoint / Drive Signal / Supply Pressure |
| Triggered Profile Events** | None | Travel Deviation |
| Trigger Record Length** | 60 Sec | 60 Sec |

^{*}Requires a work practice to regularly check/clear the alert

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^{**}Functionality with Performance Diagnostics Tier