Signature Series Performance Testing

Here’s an easier way to track the operating health of your control valve with a FIELDVUE® instrument: Use ValveLink® Signature Series factory testing as the starting point in your control valve maintenance program.

Diagnostic Capability
ValveLink® VL2000 Series Software
We use ValveLink VL2000 Series software and the diagnostic capability of FIELDVUE instruments to thoroughly test each FIELDVUE instrument-equipped control valve in the factory as part of its final assembly checkout. Why? To create a benchmark of a properly assembled valve’s performance just prior to shipment.

FlowScanner® Diagnostic System
In those instances where Signature Series data is desired, but the control valve does not include a FIELDVUE instrument, you can rely on the Fisher FlowScanner® Diagnostic System to gather the maintenance data you need. The FlowScanner system is a portable, in-the-field way to investigate the operating condition of a control valve, with results very similar to the data provided by factory Signature Series tests.

Operating Signature
We call this benchmark the valve’s operating signature. You can use this signature as the starting point in later valve diagnostics to determine if any performance fall-off has occurred.

Test Levels
Three levels of Signature Series tests are available, with each level providing valuable diagnostic data. When you order a Signature Series test, you receive complete documentation both as paper copy and on a 3-1/2 inch diskette.

Data Comparison
If your control valve is equipped with a FIELDVUE instrument that includes diagnostic capability, after the valve has been in service you can use ValveLink software to run the same tests that were originally run at the factory. Then, by importing Signature Series data into the ValveLink software, you can compare as-shipped performance with the valve’s current operating condition. (ValveLink software is available as a stand alone product or as a SNAP-ON™ application for Fisher-Rosemount Asset Management Software.

The Signature Series Lineup
Signature Series 1
Within the Signature Series 1 test level, you receive:
- Configuration Data
- Valve Specification Details
- Device Details
- Monitor Results (taken at 50% input)
- Alert Display
- Valve Signature Curve (as recorded from –5 to 105% input)\(^1\)
- Dynamic Error Band Curve (as recorded from –5 to 105% input)\(^1\)
- Paper copy of results and a 3-1/2 inch diskette with all Series 1 test data

\(^1\) Scan time for this test depends upon actuator size. See table 1.
**Table 1. Testing Scan Times by Actuator Diaphragm Area**

<table>
<thead>
<tr>
<th>Actuator Diaphragm Area, inches² (cm²)</th>
<th>Scan Time, seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 100 (645)</td>
<td>50</td>
</tr>
<tr>
<td>100 to 199 (645 to 1289)</td>
<td>100</td>
</tr>
<tr>
<td>200 to 299 (1290 to 1934)</td>
<td>150</td>
</tr>
<tr>
<td>Greater than 300 (1935)</td>
<td>200</td>
</tr>
</tbody>
</table>

- Paper copy of results and a 3-1/2 inch diskette with all Series 2 test data

**Signature Series 3**

Series 3 testing provides user specified Series 1 and 2 tests and allows any change in end points or scan times. This capability lets you tailor the testing to your specific requirements or process needs.

**Signature Series Availability**

A Signature Series 1 test is conducted on Fisher control valves that are equipped with a FIELDVUE Digital Valve Controller. Series 1 results may be ordered at any time prior to or following the manufacture and assembly of the valve. Contact your Fisher sales office or Sales Representative to obtain Signature Series 1 data.

Series 2 testing is performed only when specified as part of the original valve order. Therefore if Series 2 testing was not specified on the original order, test results are not available following shipment of the valve from the Fisher manufacturing plant.

Series 3 testing permits specifying which Series 1 and 2 tests are run. Results for tests that are not specified are not available following shipment of the valve from the Fisher manufacturing plant.

**Take Advantage of the Signature Series**

You can begin to take advantage of the Fisher Signature Series simply by contacting your Fisher sales office or Sales Representative. Remember that for new valves yet to be manufactured, you can specify any of the Series testing levels. If your FIELDVUE instrument-equipped control valve is already in service, you can still improve your valve maintenance picture by ordering Series 1 test results and by utilizing ValveLink software. Regardless of your control valve situation, Fisher can provide you with the diagnostic data you need to keep your valves operating at top performance!