AMS ValveLink® Software Signature Series Performance Testing

Here's an easier way to track the operating health of your control valve with a FIELDVUE® instrument: Use AMS ValveLink® Software Signature Series factory testing (figures 1 and 2) as the starting point in your control valve maintenance program. Why? To create a benchmark of a properly assembled valve's performance just prior to shipment.

Diagnostic Capability

AMS ValveLink® Software
When ordered with your FIELDVUE equipped control valve, our factory uses the diagnostic capability of AMS ValveLink Software to thoroughly test each valve assembly as part of its final assembly.

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 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 AMS ValveLink Software to run the same tests that were originally run at the factory. Then, by importing Signature Series data into the AMS ValveLink Software. You can compare as-shipped performance with the valve’s current operating condition. AMS ValveLink Software is available in the following configurations: AMS ValveLink SNAP-ON, ValveLink SNAP-ON for DeltaV, ValveLink Solo, and ValveLink PLUG-IN for PRM.

The Signature Series Lineup

Signature Series 1
Within the Signature Series 1 test level, you receive:
- Instrument Configuration Display
- Status Monitor (50% travel)
- Valve Spec Sheet
- Valve Signature, as recorded from 5 to 105% input (Scan time for this test depends on actuator size. See table 1.)
- Dynamic Error Band Curve, as recorded from 5 to 105% input (Scan time for this test depends on actuator size. See table 1.)
- Paper copy of results and a 3-1/2 inch diskette with all Series 1 test data

<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>

Signature Series 2
In addition to Signature Series 1 information, you receive:
- Performance Step Test
- Status Monitor (1, 25, 50, 75, 100%)
- Drive Signal, as recorded from 5 to 105% input (Scan time for this test depends on actuator size. See table 1.)
- 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

Signature Series testing is available for all Fisher control valves that are equipped with a FIELDVUE digital valve controller. To order Signature Series testing, simply specify your Signature Series testing requirements on all Fisher control valve orders. Signature Series testing is performed on Fisher control valve assemblies for which Signature Series testing is specified as part of the original valve order. Signature Series tests will not be available if not specified as part of the original valve order.

Take Advantage of the Signature Series

You can begin to take advantage of the Fisher Signature Series by contacting your Fisher sales office. Remember to specify your Signature Series testing requirements when placing your order. Fisher can provide you with the diagnostic data you need to keep your valves operating at top performance!

Note

Emerson Process Management does not assume responsibility for the selection, use, or maintenance of any product. Responsibility for proper selection, use, and maintenance of any Fisher product remains solely with the purchaser and end user.

Figure 2. Performing a Diagnostic Test with AMS ValveLink® Software Provides an Analysis of Control Valve Operating Parameters