

Alert Record Setup for a Fisher™ FIELDVUE™ DVC6200 HW2 Digital Valve Controller

Alert Record in the DVC6200 HW2 is accessible using ValveLink™ software or DD based communications such as a Trex Device Communicator or AMS Device Manager, and can be configured to record and time stamp alert conditions. Twenty (20) alert records may be stored in the instrument. The alert record is a great troubleshooting tool when used properly.

Note

The alert record does not use a first in first out (FIFO) operation. Once the alert record is full, the instrument will not record additional events until the alert record is cleared. Alerts will continue to be reported to the control or asset management system.

Enable the Alert Record

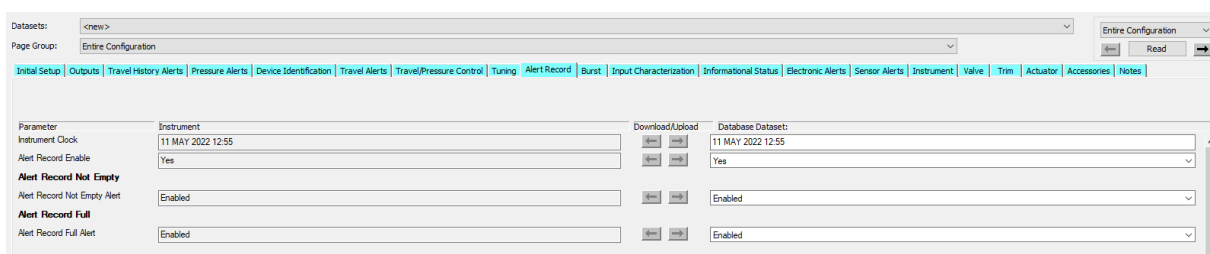
1. The alert record in the DVC6200 is disabled by default. It is good practice to enable the alert record and clear it *after* startup procedures are complete; when the alert record is enabled during start-up it can be filled with irrelevant alerts.
2. To enable the alert record, open the Detailed Setup menu using the Block icon.



3. Click on Alert Record (**Alert Record**) at the top of the Detailed Setup window.
4. Verify that Alert Record Enable is set to yes.
 - a. Use the drop down menu on the right to change values as needed.
 - b. Use the left arrow next to the parameter to download the value to the instrument.

Set Alert Record Not Empty and Alert Record Full Alerts

Enabling both of these alerts will generate an alert in Status Monitor when alert values are recorded and available to view in the Alert Record.



Set Instrument Clock

The initial clock value shown in the right column is the computer time when the Alert Record page is opened.

1. Adjust the time value as needed.
2. Use the left arrow to download the time and date to the instrument.

Note

The instrument time will reset to the default value any time power is cycled to the instrument; set the instrument clock as the last step when commissioning the instrument in a control loop.

If the instrument clock resets unexpectedly, it may indicate intermittent power cycle issues are occurring, such as I/O channel cycling on/off or a bad wire connection.

Configure Key Alerts:

1. Enable the alerts you want to monitor using the Detailed Setup menu.
2. Key alerts to enable include:

- a. Travel Deviation – Travel Alerts Tab

- Adjust the Alert Point and Time for the actuator size.

Travel Deviation	
Travel Deviation Alert	Enabled
Travel Deviation Alert Point (%)	5
Travel Deviation Alert Time (sec)	10

- b. Supply Pressure Low – Pressure Alerts Tab

- Set Alert Point to just below the upper bench set pressure or the minimal pressure required to move a piston.

Supply Pressure Low	
Supply Pressure Low Alert	Enabled
Supply Pressure Low Alert Point	15.0 psi

- c. Drive Signal – Electronic Alerts tab

- Drive signal is typically between 60 and 80% when the valve is not on a stop. It is used to determine how hard the digital valve controller is working to maintain the position of the valve.

d. Diagnostic Data Available – Informational Status Tab

- This alert indicates PD trigger information is stored in the instrument buffer.



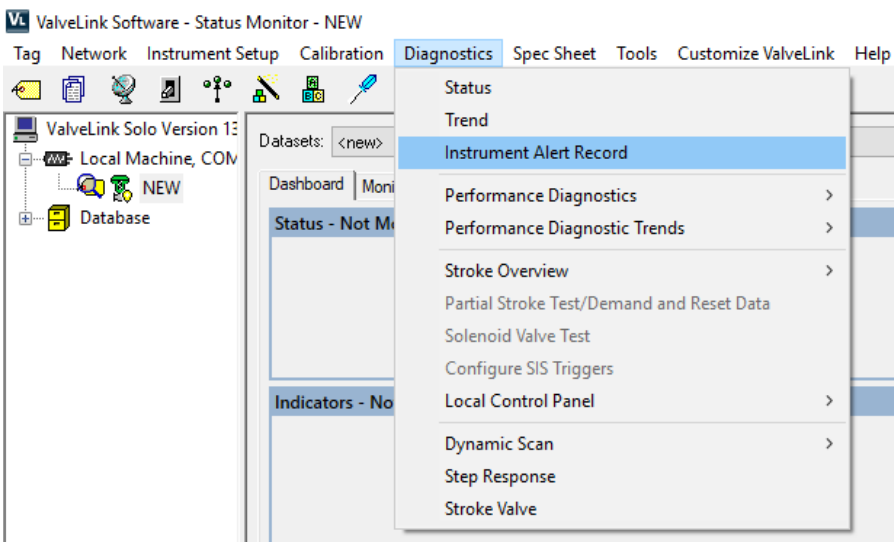
e. Pressure Fallback Active – Sensor Alerts Tab

- This alert is active if the device goes into pressure fallback.
 - Pressure Fallback must be enabled

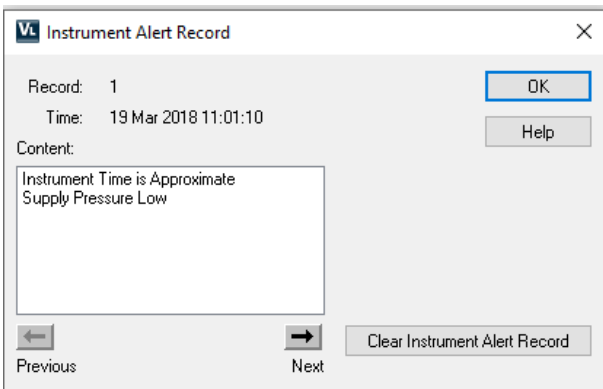


View and Clear Stored Alert Records

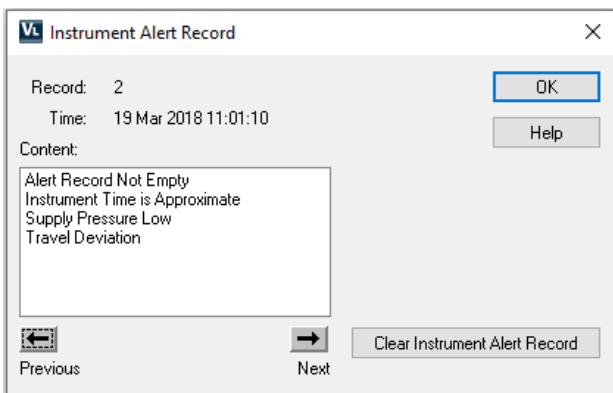
1. Connect to the DVC6200 with ValveLink software.
2. Select Instrument Alert Record from the Diagnostics drop down menu.



A dialog box like the one shown below will appear if there are any stored records.



- Use the next and previous arrows to scroll through the records. Each record may contain multiple alerts depending on what was active at the time the record was captured.



Note:

The alert record list cannot be downloaded.

Note:

Instrument time is shown as Approximate in the image above because the instrument clock was not reset following a power cycle.

- When finished viewing records click on Clear Instrument Alert Record to erase all current records and allow for 20 new records to be recorded.

Note

Best practice is to set the instrument clock and clear the alert record after the DVC6200 is connected to the control system and final commissioning steps have been performed.

View Active Alerts

Active alerts may be reported via HART protocol to a control or asset management system. They are also viewable using ValveLink Status Monitor. The image below shows active alerts in ValveLink software reported while the Status Monitor is running; this alert information is also recorded in the instrument.

Alert Variable	Status	Enabled	Current Value	Alert Point
Alert Record Not Empty	✖	Yes		
Alert Record Full	✖	Yes		
Configuration Changed	●	Yes		
Travel Deviation	●	Yes	0.38 %	5.00 %
Drive Signal	●	Yes	75.19 %	
Internal Sensor Out of Limits	●	Yes		
Variable Out of Range	●	Yes		
Minor Loop Sensor Failure	●	Yes		
Output Circuit Error	●	Yes		
Travel Sensor Failure	●	Yes		
Temperature Sensor Failure	●	Yes		
Pressure Sensor Failure	●	Yes		
Drive Current Failure	●	Yes		
Critical NVM Failure	●	Yes		
Flash Integrity Failure	●	Yes		
Reference Voltage Failure	●	Yes		
Shutdown Activated	●	Yes		
Pressure Deviation	●	Yes	111.84 psi	5.00 psi
Non-Critical NVM Failure	●	Yes		
Instrument Time is Approximate	●	Yes		
Manual Reset Required	●	Yes		
Pressure Fallback Active	●	Yes		
Supply Pressure Low	●	Yes	20.63 psi	15.00 psi

Note

The alert monitor can run in a live process and passively monitor instrument parameters.

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Emerson Automation Solutions
Marshalltown, Iowa 50158 USA
Sorocaba, 18087 Brazil
Cernay, 68700 France
Dubai, United Arab Emirates
Singapore 128461 Singapore

www.Fisher.com

