

Fisher™ ValveLink™ Pro Solo Software



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Section 1: Introduction

ValveLink Pro Solo is a powerful utility for managing valve assemblies equipped with Fisher FIELDVUE™ DVC7K digital valve controllers. Key features include:

- A comprehensive instrument database
- Configuration and Calibration
- Valve Assembly Diagnostic Tests, Analysis, and Recommended Actions
- Feature Step-Up management
- Firmware management

Section 2: Prerequisites and Requirements

WARNING

Do not install or operate ValveLink Pro Solo Software without being fully trained and qualified in valve, actuator and accessory installation, operation and maintenance. To avoid personal injury or property damage, it is important to carefully read, understand and follow all contents of this manual, including all safety cautions and warnings. If you have any questions about these instructions, contact your [Emerson sales office](#) before proceeding

2.1 Supported Operating Systems

- Windows® 10 (v1803 and newer)
- Windows 11
- Windows Server 2019
- Windows Server 2022

2.2 Compatible Devices

ValveLink Pro Solo communicates with HART® communicating DVC7K digital valve controllers via a HART modem or a Bluetooth® connection. Refer to Related Documents below for information specific to the DVC7K digital valve controller.

2.3 Related Documents

- Fisher FIELDVUE DVC7K-H Digital Valve Controller Quick Start Guide ([D104766X012](#))
- Fisher FIELDVUE DVC7K-H Digital Valve Controller Instruction Manual ([D104767X012](#))

All documents are available from your [Emerson sales office](#) or at [Fisher.com](#)

Section 3: Installation

3.1 Download ValveLink Pro Software

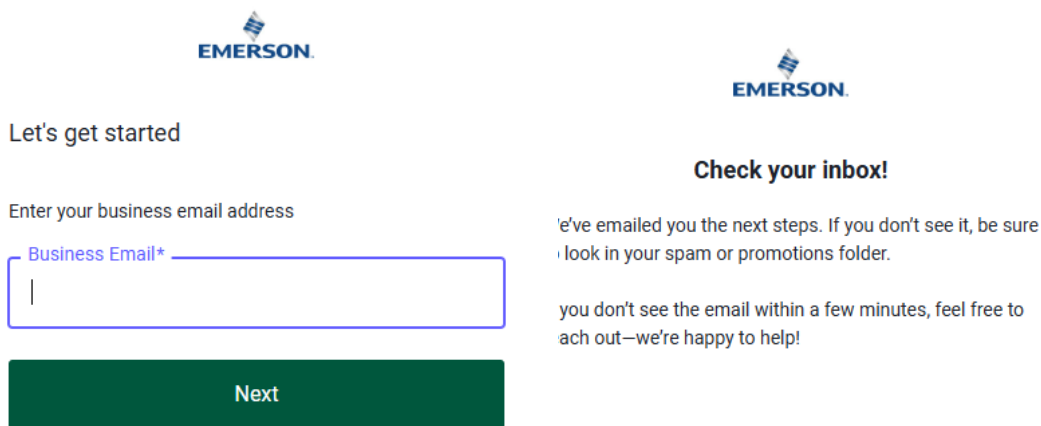
If you do not have a MyEmerson account create one as follows:

1. Visit MySoftware.Emerson.com
2. Select your global area and preferred language
3. Click on the User Profile icon at the top / right of the screen 
4. Click on Create Account

To download the software :

1. Sign into your MySoftware.Emerson.com account.

Figure 1. MySoftware.Emerson



EMERSON.

Let's get started

Enter your business email address

Business Email*

Next

EMERSON.

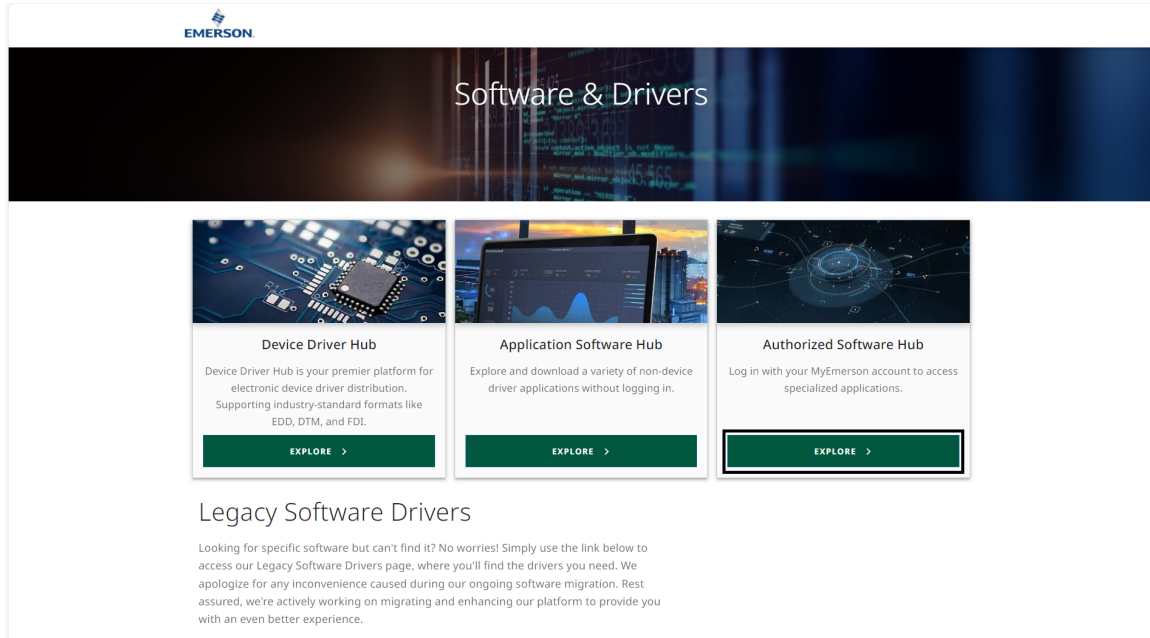
Check your inbox!

We've emailed you the next steps. If you don't see it, be sure to look in your spam or promotions folder.

If you don't see the email within a few minutes, feel free to reach out—we're happy to help!

2. Click on Authorized Software Hub > EXPLORE to access Licensed Applications.

Figure 2. Authorized Software Hub



3. Search for ValveLink Pro and request Access.
4. Once the confirmation email has been received, download the application from this screen.

NOTE

Notification will be sent to the email associated with your MyEmerson account.

5. Download ValveLink Pro software.

3.2 Install the Software

ValveLink Pro Solo software may be installed on multiple PCs within your organization.

Run the Setup Application

NOTE

The PC requires connectivity to the internet during installation to access the required resources.

Locate the folder containing the ValveLinkProSoloSetup application.

1. Unzip the file and double-click ValveLinkProSoloSetup to start the installation process.
2. Select Install on the resulting popup to continue installation.

NOTE

ValveLink Pro Solo requires several Microsoft .NET 8 software components that may not be installed on your PC. The software will automatically download the needed components.

3. Click Finish once the Installation Wizard confirms installation.
4. Click Launch Application from the startup page to launch the software.

NOTE

To access the application, you must belong to either the ValveLink Software Admins group or the ValveLink Software Users group in Windows. See User Permissions below.

5. Accept the software licensing agreement to continue.

NOTE

After installation, you can access the License Agreement anytime under User Profile / License Agreement.

User Permissions

When you install ValveLink Pro Solo software, the application automatically creates two Windows user groups (if they do not already exist):

- ValveLink Software Admins
- ValveLink Software Users

To run the application, you must be:

- A member of one or both of these groups, or
- A member of another group that has been added to the ValveLink Software Admins or ValveLink Software Users groups.

Members of the Users group can run the application, and members of the Admins group can manage user accounts and modify permissions.

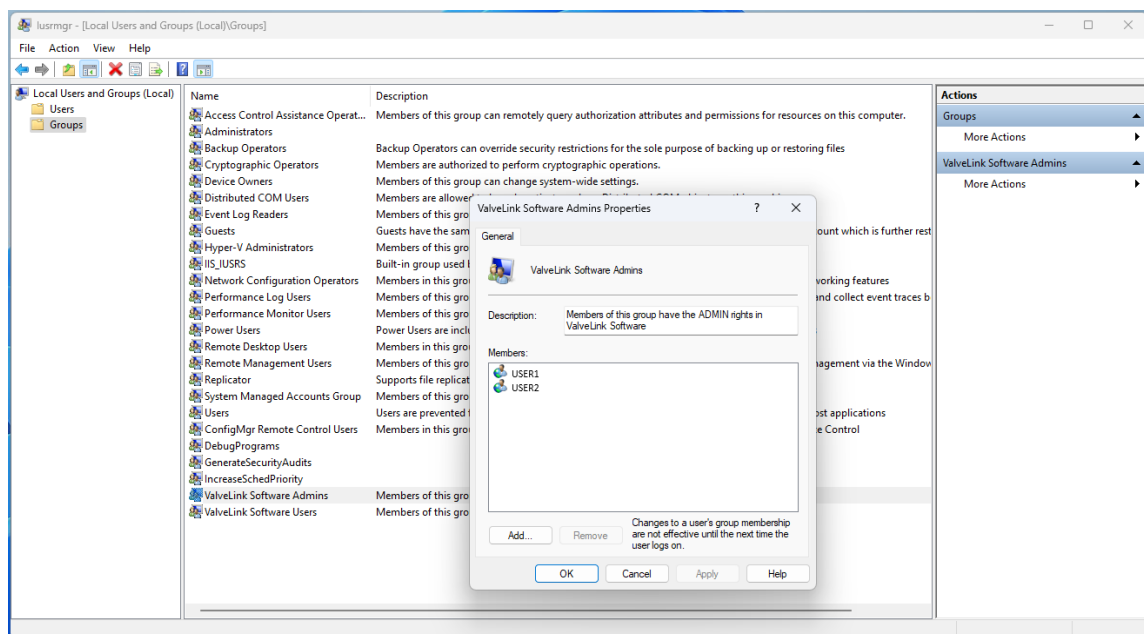
To add a user or group type Computer Management in the start menu or right click on computer, then click manage. Navigate to Local Users and Groups to add the appropriate Users and Groups as shown in Figure 3.

Re-installing the Software

If you are re-installing ValveLink Pro Solo:

- It is not necessary to uninstall a previous version of the program.
- The version you are installing will overwrite an older version of the program.
- Restart your computer before running the ValveLink Pro installation program so a complete, clean installation is possible.
- The ValveLink Pro software installation process allows you to save an existing database.

Figure 3. Add Users and Groups



3.3 HART Modem Setup

NOTE

A HART-compliant modem, such as the Viator USB HART Interface HM-PF-USB-010031, is required to communicate with the DVC7K digital valve controller.

HART modem drivers, which are needed for the HART modem to work, are installed during ValveLink Pro software installation.

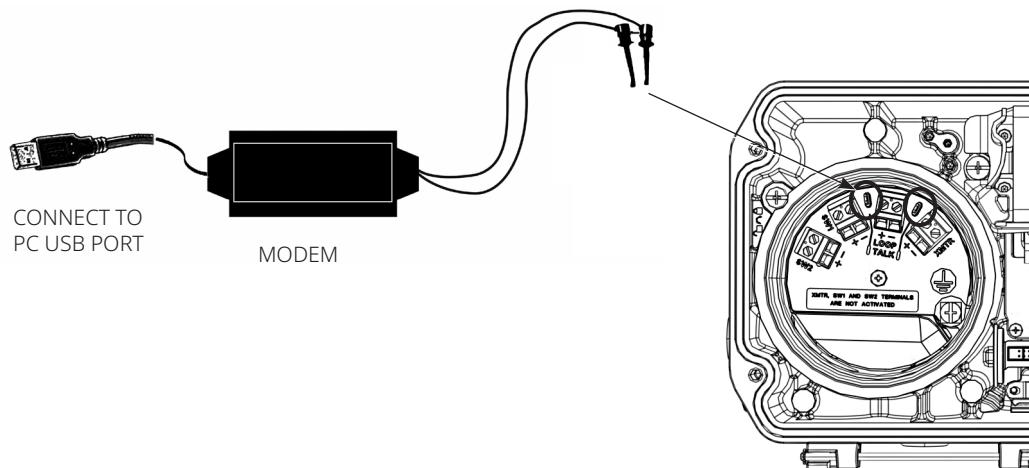
1. Locate the USB port and attach the HART modem.
 - a. ValveLink Pro Solo automatically configures the Communications for all Viator USB HART Interfaces. If using a VIATOR USB HART Interface (e.g. HM-PF-USB-010031) configuration is not needed.
 - b. For all other modems:
Find the COM Port under Device Manager > Ports.
Open ValveLink Pro Solo > Settings > Communications,
Add Communication; select the COM Port noted above.

⚠ WARNING

Before opening the instrument cover or connecting a modem cable, follow all applicable plant safety guidelines and procedures. These may include requirements for work authorization, electrical safety, and hazardous area precautions. Failure to comply can result in personal injury, equipment damage, or violation of site safety policies.

2. Use the modem cable assembly to connect the HART modem to the instrument or to the signal wiring (see Figure 4).
 - a. To communicate with the instrument, locate the signal wires or the terminals of the instrument.
 - b. Clip the cable assembly to the DVC7K TALK terminals.
 - c. Apply 4 to 20 mA power to the instrument LOOP + and - terminals.

Figure 4. Connecting the HART Modem



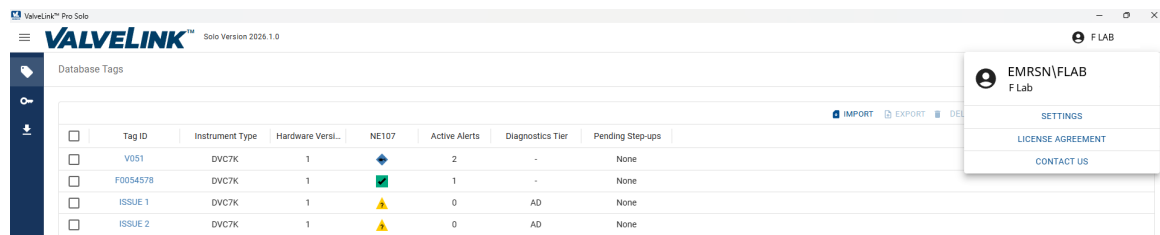
3.4 Bluetooth Setup

NOTE

Bluetooth communication is handled by an embedded wireless module within the laptop that interfaces with the host processor; communication is managed through the Bluetooth protocol stack. Device connections are established through discovery and secure pairing, after which data exchange occurs over defined profiles and services, enabling reliable short-range wireless communication between the laptop and field devices.

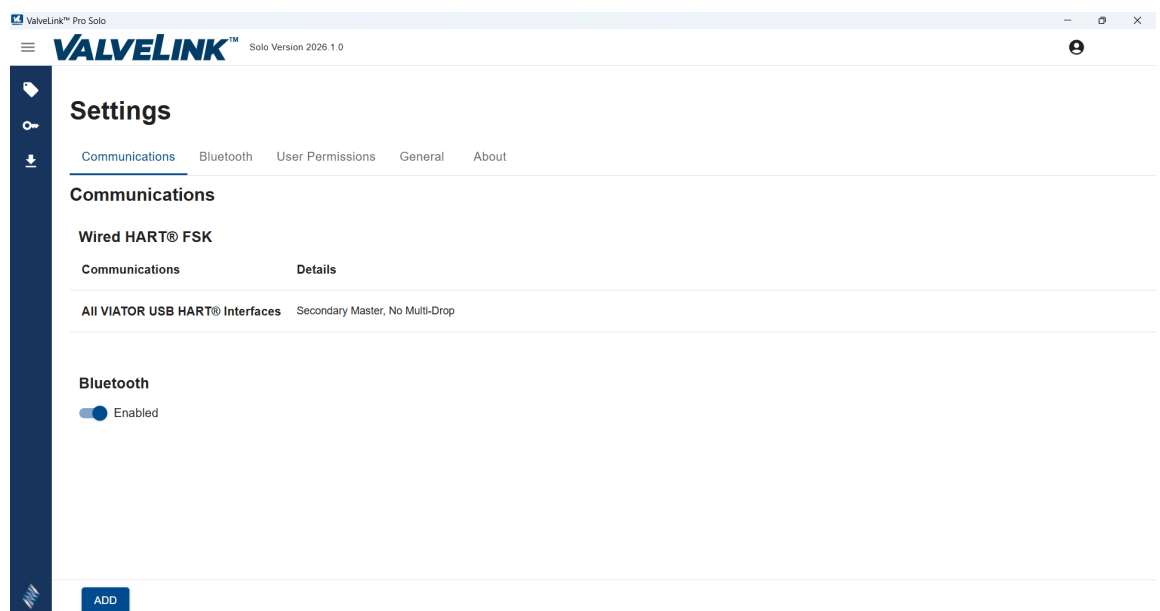
1. To enable Bluetooth, navigate to SETTINGS under your user profile.

Figure 5. User Setting



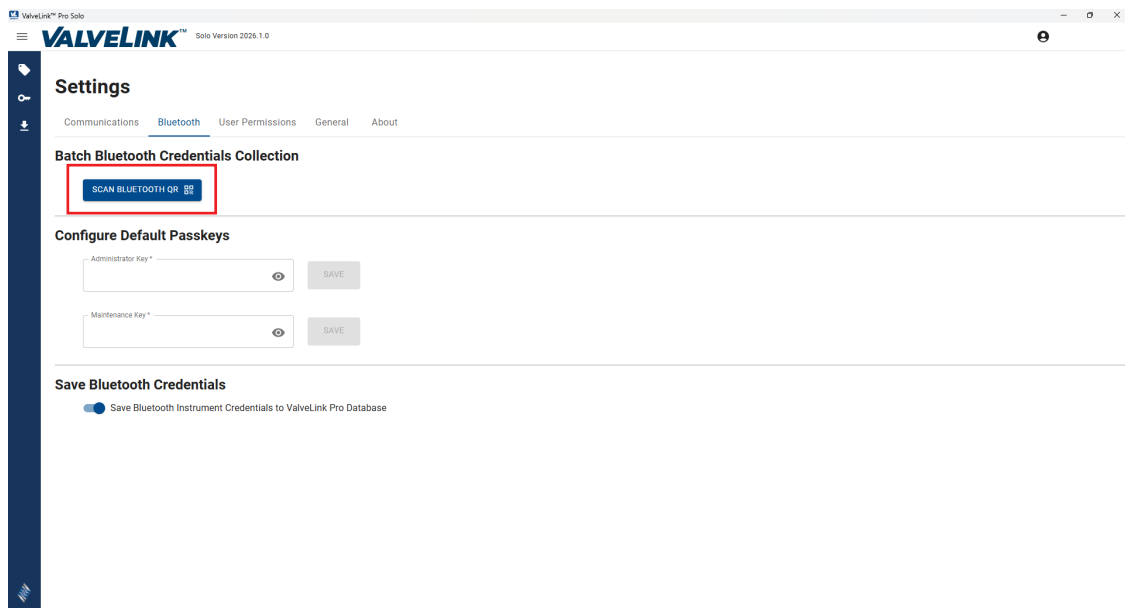
2. Enable Bluetooth on the Communication tab.

Figure 6. Enabling Bluetooth



3. The Bluetooth tab allows you to configure default passkeys for Bluetooth devices as well as allowing Bluetooth Instrument Credentials to be saved in the ValveLink Pro Database. Saving the credentials allows the ValveLink Pro software to remember the device when it is in range.

Figure 7. Bluetooth Settings



4. Click SCAN BLUETOOTH QR (Figure 7) to input the UID and Key information that is provided in the front cover of the DVC7K either manually or with a QR code scanner.

Figure 8. UID and KEY Location in the DVC7K



Figure 9. QR Code Scanner Input

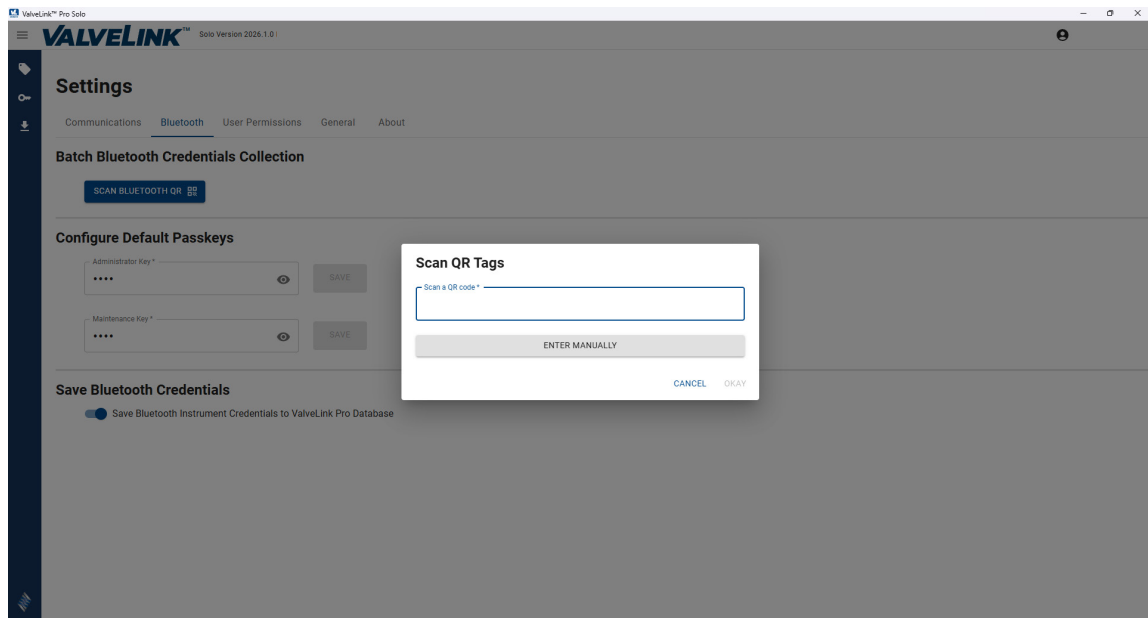
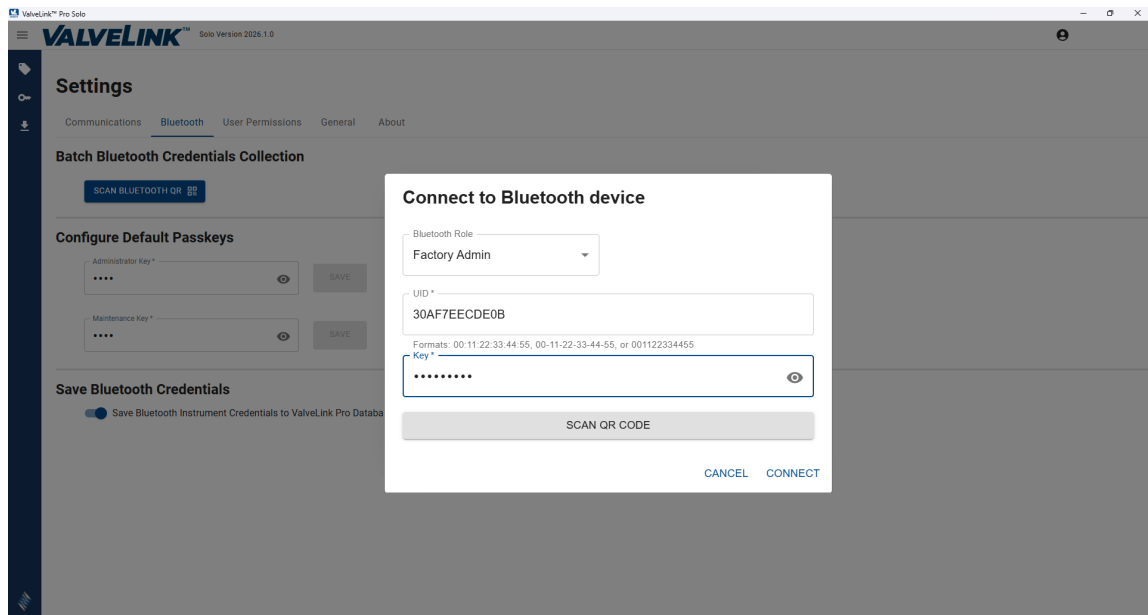


Figure 10. Manual Entry of UID and Key



5. The device should now be communicating with ValveLink Pro, as indicated by a blue LED and Bluetooth icon on the DVC7K LUI (Figure 11).

The device will also appear under My Devices on the Bluetooth Tags page

Figure 11. Bluetooth Connection Indication on LUI



6. The device is now connected to ValveLink Pro with full functionality.
Select the tag from the My Devices list to open the Device dashboard. The dashboard displays Bluetooth information on the main screen, including Bluetooth Tier, Broadcast Mode and Bluetooth Firmware Version (Figure 12).
From the Security dashboard Select Bluetooth Security to view and manage password and security settings (Figure 13 and 14).

Figure 12. Bluetooth Device Settings

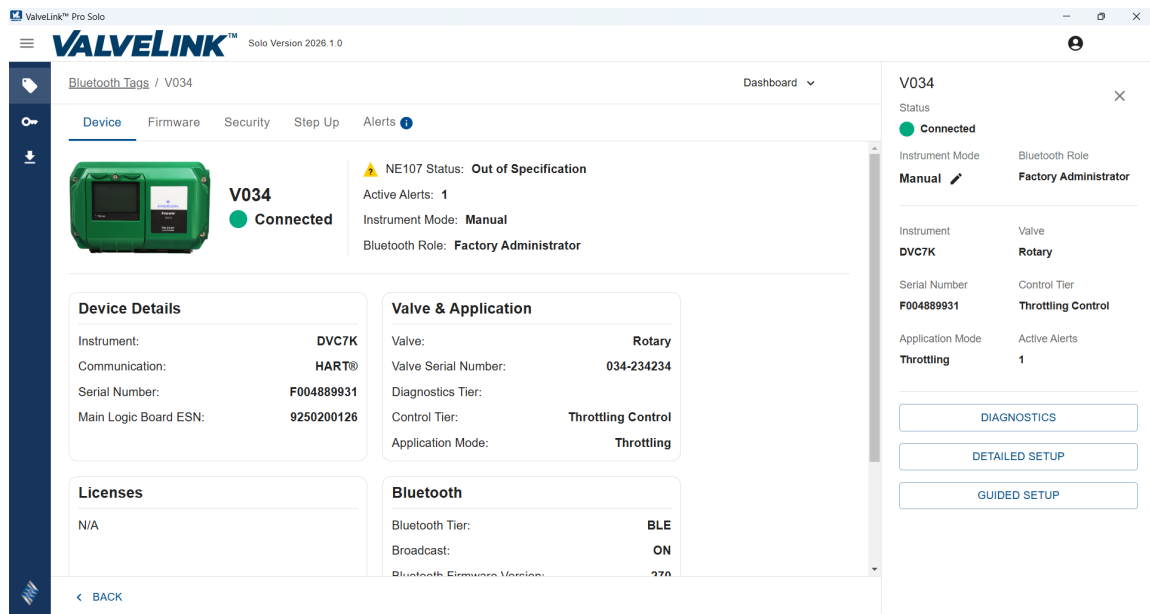


Figure 13. Bluetooth Device Security Details

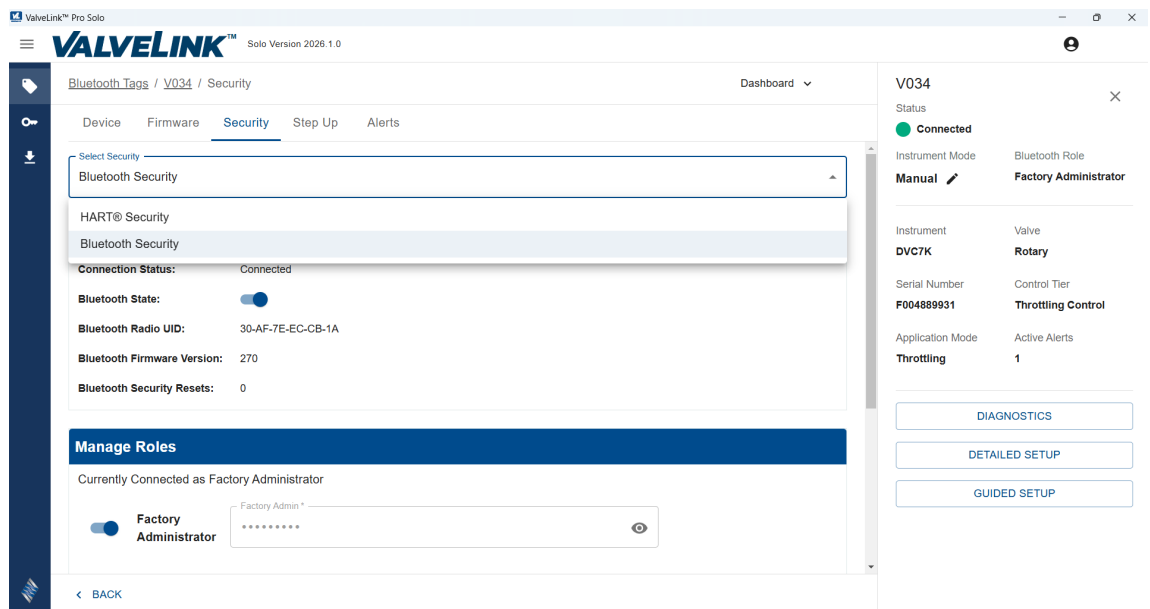
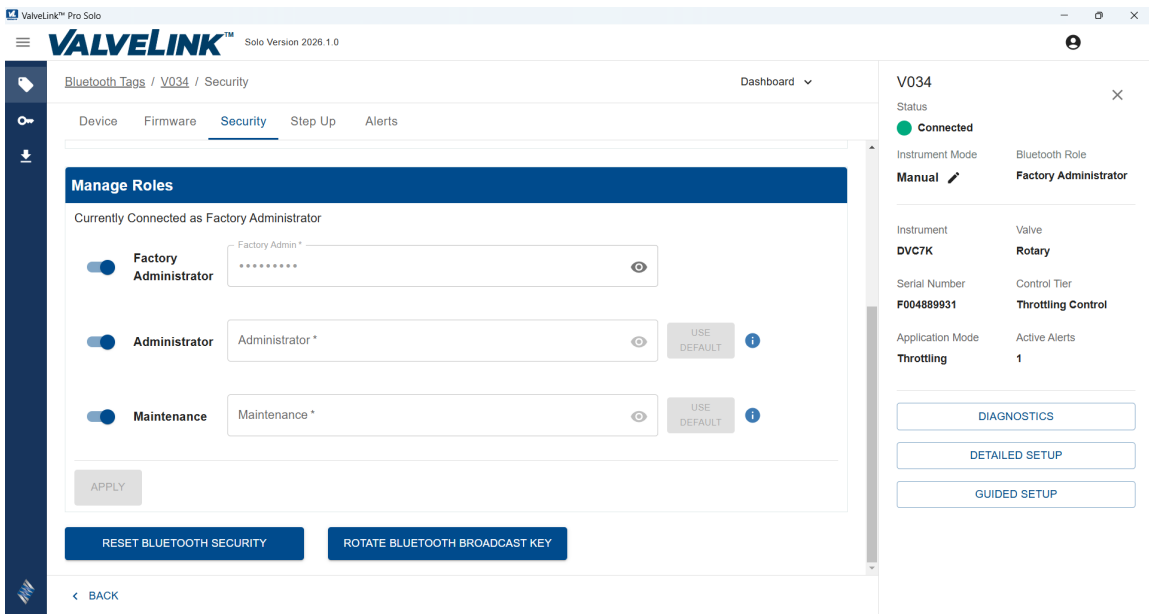
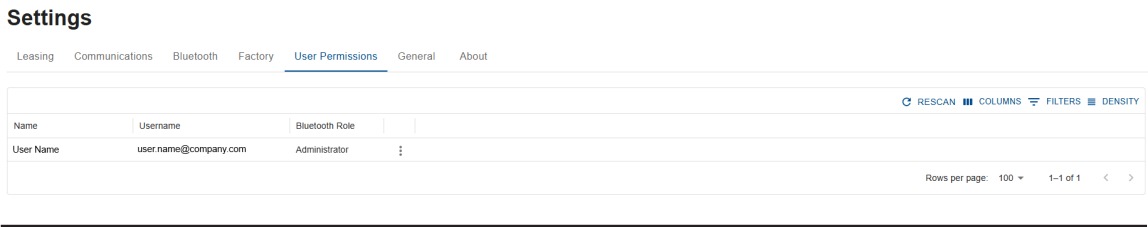


Figure 14. Bluetooth Device Password Administration



Bluetooth passwords are role-based. When enabled in ValveLink Pro, the application automatically uses the appropriate stored password and connects based on the user’s role (Admin or Maintenance).

Figure 15. Role-Based User Permissions



Section 4: Key Features

Refer to Table 1 for ValveLink Pro Solo capabilities when used with the DVC7K digital valve controller. Key features are discussed in detail below.

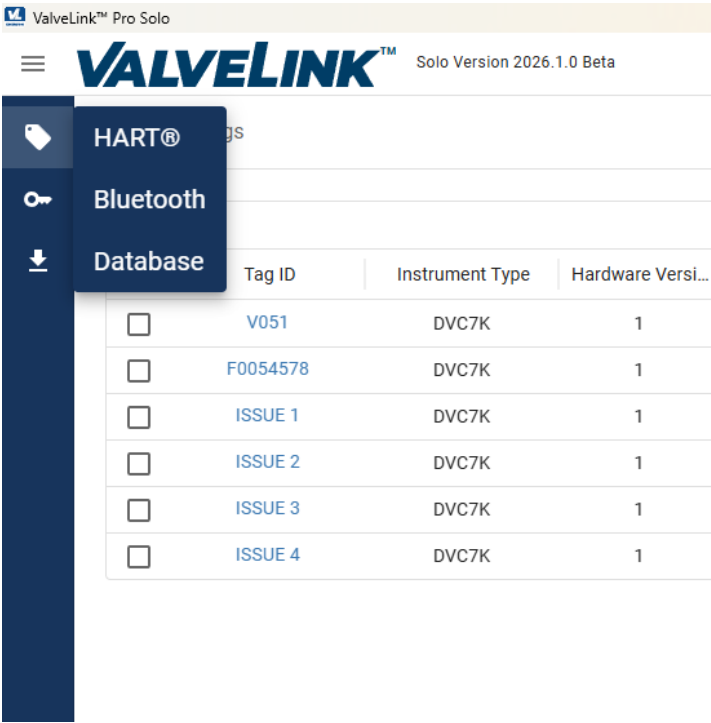
Table 1. ValveLink Pro Solo with DVC7K Capabilities ⁽¹⁾

Capability ⁽²⁾	Availability
HART Modem	Yes
Guided Setup	Yes
Bluetooth	Yes, requires minimum FW2 and BLE tier
Detailed Setup	Yes
Alert Management and Event Log	Yes
Stroke Valve	Yes
Total Scan ⁽³⁾	Yes, requires minimum FW2 and AD tier ⁽⁴⁾
Step Response ⁽³⁾	Yes, requires minimum FW2 and AD tier ⁽⁴⁾
Status Monitor	Yes, initial implementation is static data only
Instrument Level Step-Up	Yes
Firmware Download	Yes
Tag Limit	Unlimited
1. Select capabilities reside within the DVC7K digital valve controller. 2. Additional capabilities will be available in future releases of ValveLink Pro Solo. 3. Diagnostic can only be run when the instrument is in Manual. 4. AD tier is required to run the diagnostic, however, it is not required to view results.	

4.1 Tags

Tags are distinguished by the device's communication method. As shown in Figure 16, there are separate pages for HART, Bluetooth, and Database tags.

Figure 16. Tags Navigation



Click the Tag icon () to select the method you are using to connect to or view your devices.

HART Tags

Key features of the HART Tags page include:

- Only devices that are currently connected via the wired HART connection are shown.
- Customizable columns that allow the user to sort and organize the fleet for easy analysis.

Figure 17. HART Tag

Tag ID	Instrument Type	Hardware Ver...	NE107	Active Alerts	Diagnostics Tier	Pending Step-ups
FV101	DVC7K	1	▼	3	-	None

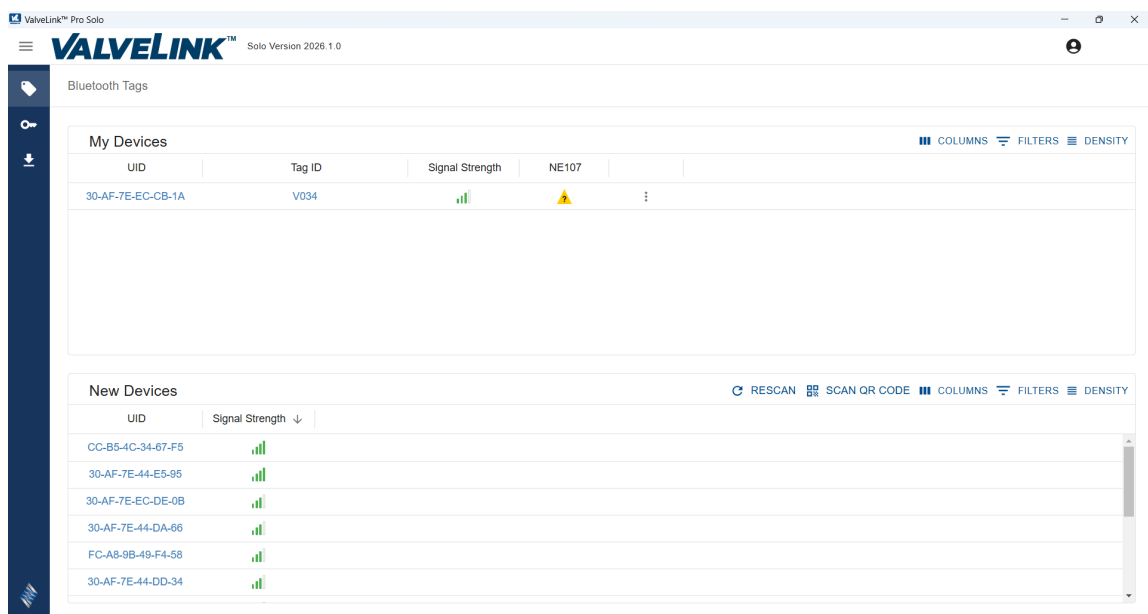
Bluetooth Tags

Key features of the Bluetooth Tags page (Figure 18) include:

- All Bluetooth devices that are currently within range of the ValveLink Pro application are shown.
 - My Devices (top section) shows devices that have been connected to the ValveLink Pro system and includes basic status information about the device including the UID, Tag ID, Signal Strength and Alerts by default.
 - New Devices (bottom section) show the devices that are currently in range but have not yet been connected to the ValveLink Pro system.

To connect new devices, scan the QR code or manually enter the key..

Figure 18. Bluetooth Tags



Database Tags

Key features of the Database Tags page (Figure 19) include:

- A list of all device datasets saved to the ValveLink Pro database, regardless of communication type.
- Customizable columns that allow the user to sort and organize the fleet for easy analysis.

Figure 19. Database Tags

	Tag ID	Instrument Type	Hardware Vers...	NET107	Active Alerts	Diagnostics Tier	Pending Step-ups
☐	V051	DVC7K	1		2	-	None
☐	F0054578	DVC7K	1		1	-	None
☐	ISSUE 1	DVC7K	1		0	AD	None
☐	ISSUE 2	DVC7K	1		0	AD	None
☐	ISSUE 3	DVC7K	1		0	AD	None
☐	ISSUE 4	DVC7K	1		1	-	None

4.2 Configuration and Calibration

Guided Setup

Guided Setup allows you to quickly setup the instrument on a valve assembly. Guided Setup behaves the same for devices connected via HART modem or Bluetooth.

NOTE

Guided Setup can also be run from the DD (Device Descriptor run from a Host System, an Emerson Trex™ handheld communicator, or a PC running AMS Device Configurator) or the DVC7K LUI.

NOTE

Diagnostics require a completed Spec Sheet, which is entered during Detailed Setup. Guided Setup alone does not capture the necessary data. See Spec Sheet section below for additional information.

1. Select GUIDED SETUP and press RUN.
 2. Select the LUI language.
 3. Enter the required Spec Sheet Information and press SET.
-

NOTE

If this information has been previously provided these fields may already be populated. The Spec Sheet information required for Guided Setup includes Actuator Manufacturer, Model, Size and Style, Valve Style, Relay Type, Application Mode, Volume Booster and Quick Release information.

4. Set Tuning. A recommended tuning set is provided based on the provided actuator information.
-

NOTE

Refer to Section 4: Configuration in the DVC7K-H Instruction Manual, [D104767X012](#), for additional tuning set details.

5. Acknowledge the state of the valve; open or closed. This sets the Zero Power Condition of the DVC7K.
6. Guided Setup is complete after Auto Calibration finds the valve travel end points and completes the setup.
7. Press < BACK to return to the Tag Detail page.

Detailed Setup

Detailed Setup consists of three main sections; General, Spec Sheet, and Alerts.

Click DETAILED SETUP on the Device dashboard and provide or confirm the information in each of the following dashboards. Guided Setup behaves the same for devices connected via HART modem or Bluetooth.

NOTE

Refer to Section 4: Configuration in the DVC7K-H Instruction Manual, [D104767X012](#), for information on the parameters associated with General and Spec Sheet.

General

Parameters included on the General tab are those that are outside of valve assembly specific items but are important for proper operation.

- Initial Setup: Zero Power Condition, Valve and Actuator Style, Relay Type, Array Type, and Travel Sensor Motion
- Input: Input Current, Lower Range Value (default 4 mA), and Upper Range Value (default 20 mA)
- Device Identification: Tag, Message, Descriptor, Valve Serial Number, and Polling Address
- Input Characterization
- Tuning: Tuning Set, Velocity Gain, and Integral Settings

Spec Sheet

Provide the Spec Sheet data that is written to the instrument, including:

- Positioner: Identification, Tiers, and Date/Time
- Positioner Performance: Travel Control
- Valve: Valve assembly details. These parameters are used in the analysis of Total Scan data to generate the pass / fail analysis.
- Actuator: Actuator details. These parameters are used in the analysis of Total Scan data to generate the pass / fail analysis.
- Service Conditions: The service conditions present when the valve was sized. Inlet Pressure at Shut-Off and Outlet Pressure at Shut-Off are used by ValveLink Pro Solo in combination with the Valve/Trim details to calculate Required Seat Load in the Total Scan analysis.
- Specials / Accessories

Alerts

NOTE

Refer to Section 6: Device Information, Diagnostics and Variables in the DVC7K-H Instruction Manual, [D104767X012](#), for specific Alert information and default settings.

- LED: Allows you to disable the DVC7K status LED
- Travel: Travel Deviation, Travel Feedback Error, Travel High, Travel Low, Travel Limit/Cutoff High, Travel Limit/Cutoff Low.
- Travel History
- Pressure: Supply Pressure Low, Port A Over pressurized, Supply Pressure High
- Main Temperature: Temperature Low, Temperature High
- Electronics: Drive Signal, Drive Current, Electronic Defect, Non-Volatile Defect.
- Status Information: Device Misconfigured, Diagnostic in Progress, Instrument Time Bad, Calibration in Progress
- Miscellaneous: Alert Instrument Mode

4.3 Diagnostics

There are two types of diagnostics: Online and Offline.

- Online diagnostics includes Alerts and Status Monitor.
- Offline diagnostics consist of Stroke Valve, Step Response and Total Scan.

Individual diagnostics can be accessed via the drop-down menu on the Diagnostics page as shown in Figure 20.

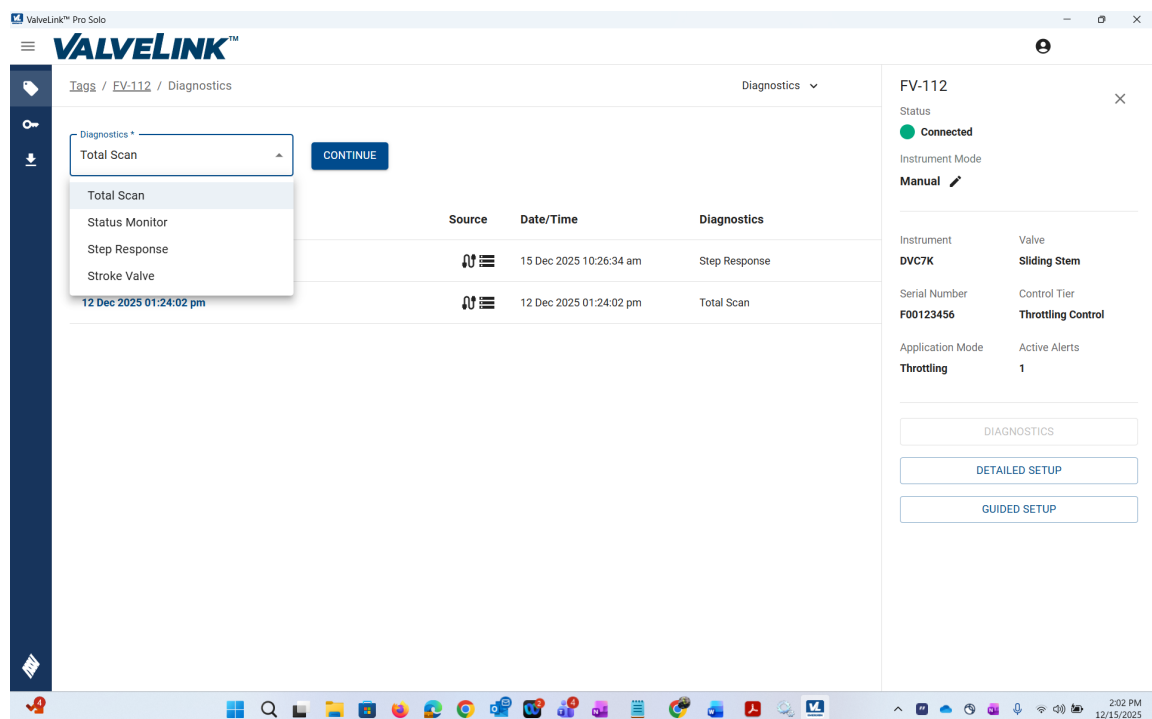
DVC7K diagnostics datasets reside within instrument memory and are copied to the ValveLink Pro Database when viewed.

NOTE

When a DVC7K digital valve controller is shipped from the factory, or as part of a control valve assembly, the final test diagnostics are stored in the instrument memory for future reference. These datasets can be retrieved and analyzed by ValveLink Pro Solo and will not be overwritten by subsequent datasets.

To view the as shipped datasets, connect ValveLink Pro Solo to the instrument with a Viator HART Modem or Bluetooth and click on the Tag name when it appears on its Tags page as Connected.

Figure 20. Diagnostics Menu



Online Diagnostics

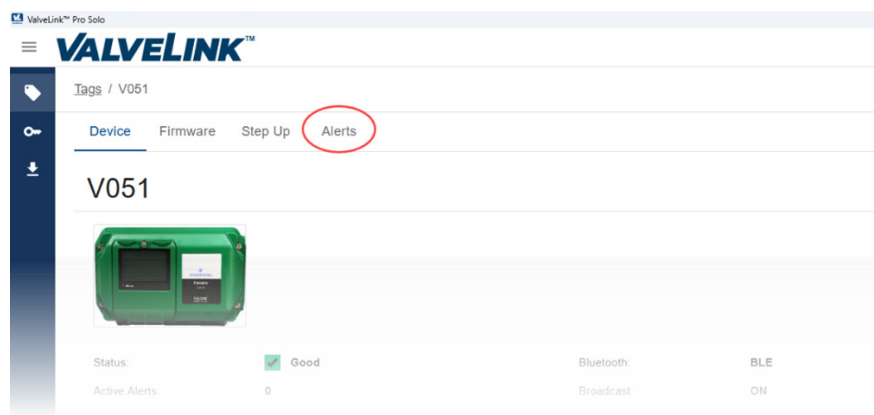
Online Diagnostics are performed when the instrument mode is in Auto. Online Diagnostics allow real-time monitoring without interrupting normal operation.

Alerts

The Alerts Screen shows Active Alerts with recommended corrective actions and the instrument Event Log.

Access the Alerts Screen from the Tag dashboard (see Figure 21).

Figure 21. Accessing Alerts



TAG DASHBOARD

Event Log

The Event Log (Figure 22) contains records of device alert activations and deactivations. Other items recorded in the Event Log include:

- Alert Simulation Start Time and Exit Time
- Auto Cal Start Time and Exit Time
- Bluetooth Security Resets
- Standby Firmware Activation
- Transmitter Loop Power Restored

The Event Log, which holds over a thousand events before it starts to overwrite the oldest recorded, can be pulled from the instrument for a detailed chronological analysis. The data can be exported in .CSV format and brought into an analysis tool such as Microsoft Excel.

Figure 22. Event Log

The screenshot displays the ValveLink Pro Solo software interface. The top navigation bar shows 'Tags / EV-112 / Alert'. The left sidebar contains icons for 'Tags', 'Device', 'Firmware', 'Step Up', and 'Alerts'. The main content area is divided into two sections: 'Active Alerts' and 'Event Log'.

Active Alerts

Alert: Loop Current Fixed
 Description: The Loop Current is being held at a fixed value and is not responding to process variations
 Corrective Action: Check that the Instrument Mode is Auto.

Event Log

SAVE TO FILE

NE107 Status	Event Type	Alert/Description	Timestamp ↓
N/A	Auto Cal Exited	Good	12/29/2025, 10:59:32 AM
N/A	Auto Cal Entered	In Progress	12/29/2025, 10:48:13 AM
⚠ Out of Specification	Alert Deactivation	Travel Deviation	12/26/2025, 9:07:06 AM
⚠ Out of Specification	Alert Deactivation	Supply Pressure Low	12/26/2025, 9:07:00 AM
⚠ Out of Specification	Alert Deactivation	Drain Signal	12/26/2025, 9:06:55 AM

At the bottom of the Event Log section, there are buttons for 'BACK', 'READ EVENT LOG', 'ALERT SETUP', and 'CLEAR EVENT LOG'.

Status Monitor

The Status Monitor provides real-time information about the health and performance of a DVC7K digital valve controller in four screens; Dashboard, Monitor, Alerts and Device.

Select Status Monitor from the Diagnostics menu and press CONTINUE.

Press START MONITORING to begin collecting information from the instrument. Each time a Status Monitor diagnostic is initiated, a new dataset is stored in the database.

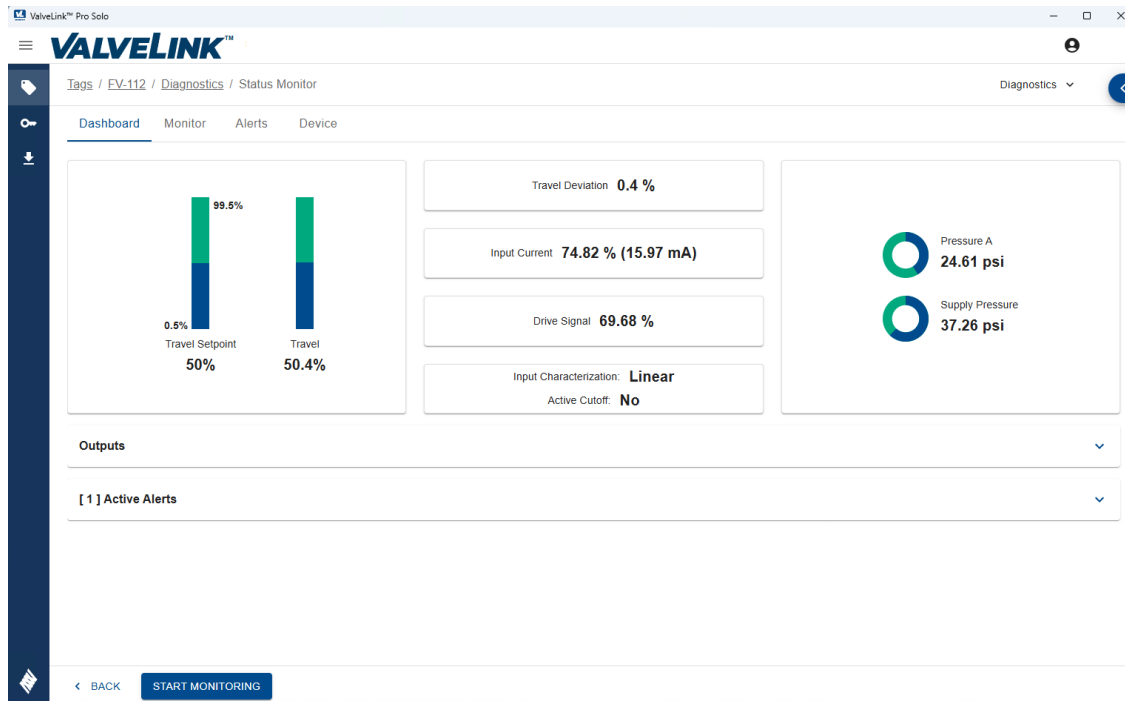
NOTE

The initial release of ValveLink Pro Solo reads the variables as a snapshot and does not update in real time. Press START MONITORING again to refresh the variables.

Dashboard (Figure 23)

- High level view of key metrics including Travel Setpoint and Current Travel, Travel Deviation, Input Current, Drive Signal, Input Characterization and Cutoff and Output and Supply Pressures.
- Outputs, including Transmitter, and Switch 1 and Switch 2 Status
- Active Alerts

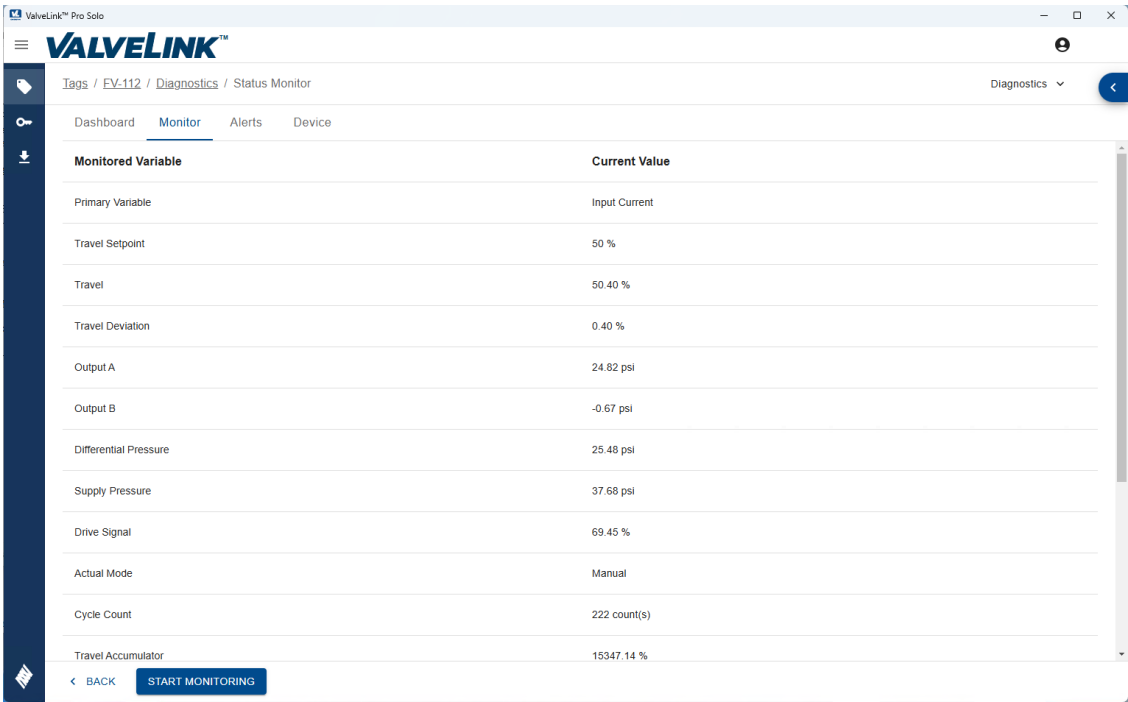
Figure 23. Status Monitor: Dashboard



Monitor (Figure 24)

- Detailed list of all discrete variables

Figure 24. Status Monitor: Monitor



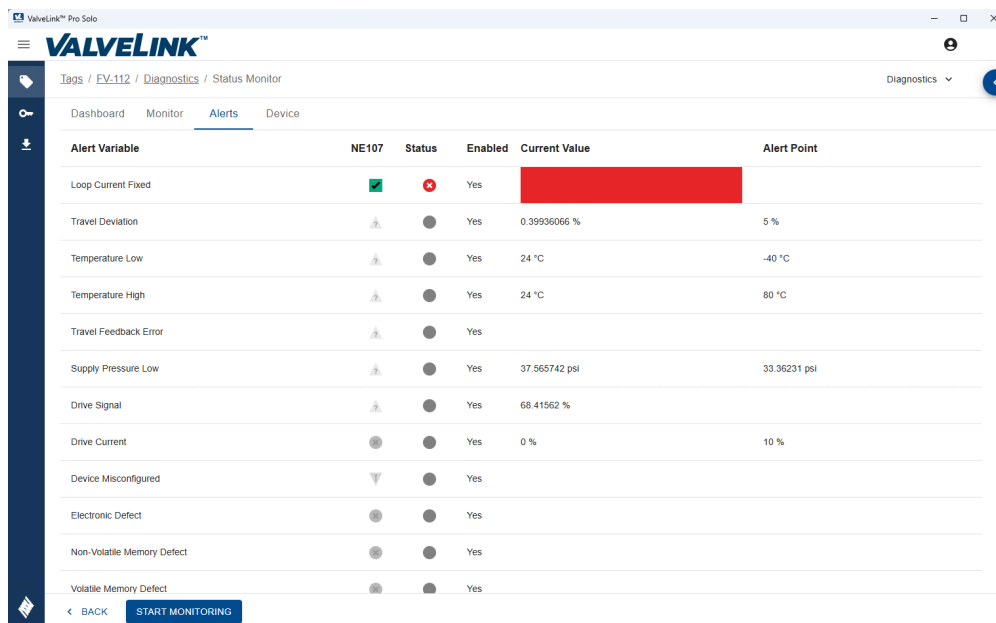
Alerts (Figure 25)

- Detailed listing of all instrument Alerts, including the assigned NE107 category for each Alert, the Active Alert Status, whether the Alert is Enabled or Disabled and the current value and set point for each Alert.

NOTE

In the example illustrated in Figure 25, Loop Current Fixed is an Alert defined by the HART standard. This Alert is enabled by default and indicates that the loop current is being held at a fixed value and not responding to process variations. This is a normal condition when the instrument is in Manual Mode and will be deactivated when the instrument is returned to Automatic.

Figure 25. Status Monitor: Alerts



Alert Variable	NE107	Status	Enabled	Current Value	Alert Point
Loop Current Fixed	✓	✗	Yes		
Travel Deviation	⚠	●	Yes	0.39936066 %	5 %
Temperature Low	⚠	●	Yes	24 °C	-40 °C
Temperature High	⚠	●	Yes	24 °C	80 °C
Travel Feedback Error	⚠	●	Yes		
Supply Pressure Low	⚠	●	Yes	37.565742 psi	33.36231 psi
Drive Signal	⚠	●	Yes	66.41562 %	
Drive Current	⚠	●	Yes	0 %	10 %
Device Misconfigured	⚠	●	Yes		
Electronic Defect	⚠	●	Yes		
Non-Volatile Memory Defect	⚠	●	Yes		
Volatile Memory Defect	⚠	●	Yes		

Device

- Tag ID
- Valve Serial Number
- Device Revisions
- Actuator Style and Relay Type

Offline Diagnostics

Offline diagnostics are performed when the instrument mode is in Manual. During these tests, the valve is physically stroked to collect performance data.

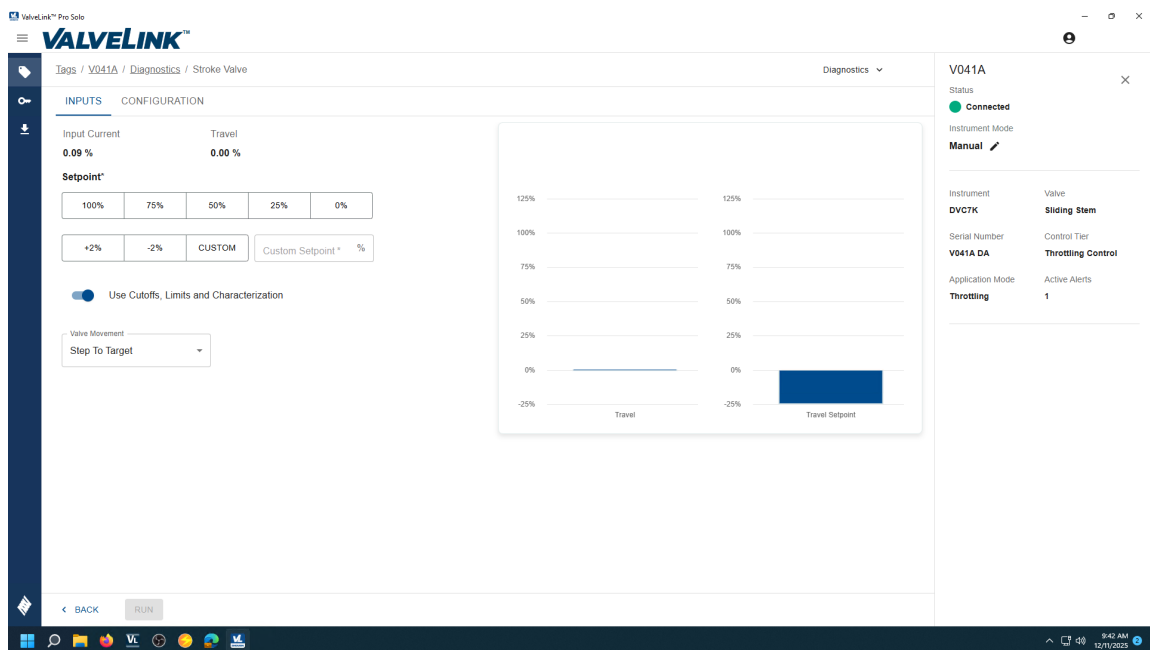
WARNING

The valve will move when performing Offline Diagnostics. To avoid personal injury and property damage caused by the release of process fluid or pressure, isolate the valve from the process and equalize pressure on both sides of the valve or bleed off the process fluid.

Stroke Valve

Stroke Valve (Figure 26) allows a technician to move the valve and observe the behavior. This is typically done after mechanical adjustments have been made to the assembly.

Figure 26. Stroke Valve



1. Configure the Stroke Valve diagnostic:
 - Input Current (% or mA)
 - Travel
 - Setpoint
 - Five pre-configured setpoints (100%, 75%, 50%, 25%, 0%)
 - Two pre-configured small step bump options (+/- 2%)
 - Custom setpoint
 - Use Cutoff, Limits, and Characterization (enabled by default)
 - Valve Movement
 - Step to Target (default): travel moves to match Travel Setpoint as quickly as possible
 - Ramp to Target: travel moves to Travel Setpoint at +/-1% per second ramp rate.
2. Click RUN to stroke the valve.

NOTE

The RUN button changes to STOP when the operation begins. You can end the test by pressing STOP at any time.

Step Response

The Step Response diagnostic allows you to evaluate how the valve tracks to an input change.

NOTE

AD tier is required to run new diagnostic tests.

Select the Step Response test you would like to run from the Diagnostics menu and press CONTINUE.

Available tests include:

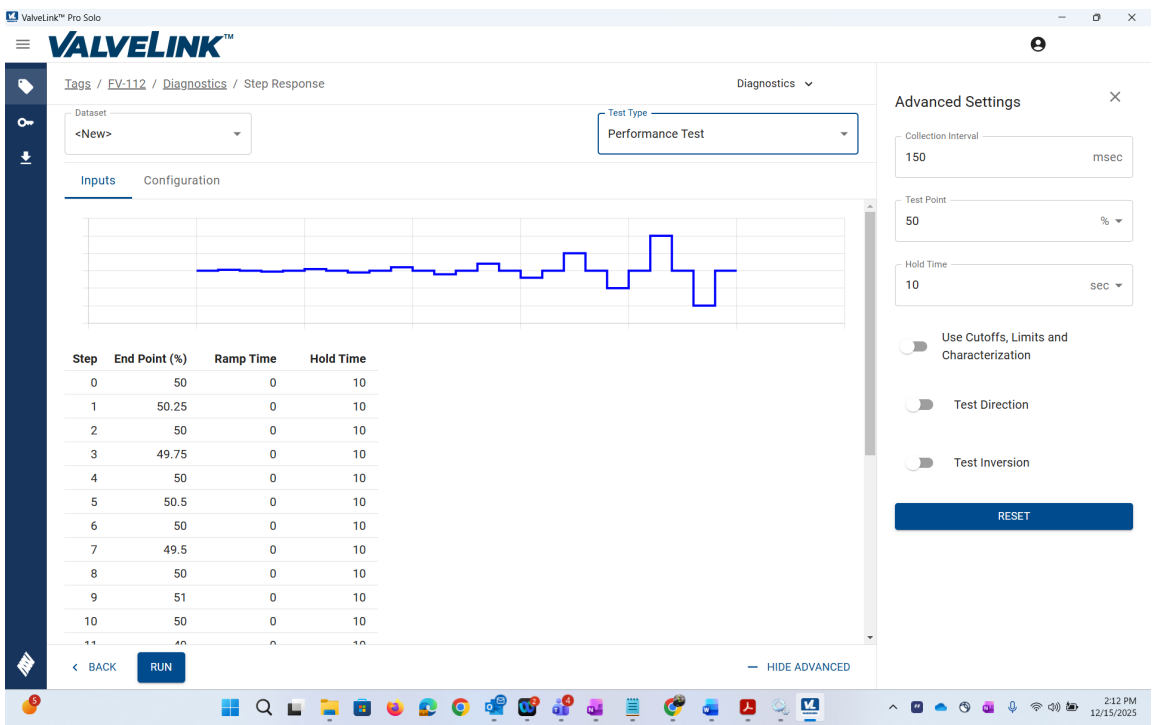
- Performance Test (see example below)
- Large Step Study Test
- Stroke Time Test
- 25% Step Study Test
- Cal Check and Stroke Test
- Sensitivity Test
- Three Step Ramp Test
- Custom Step Test (see example below)

Example: Performance Test (see Figure 27)

The Performance Test starts with small $\pm 0.25\%$ steps, and increases $\pm 0.5\%$, 1% , 2% , 5% , and 10% . This diagnostic is ideal for evaluating how the valve responds to command input, tuning, and deadband.

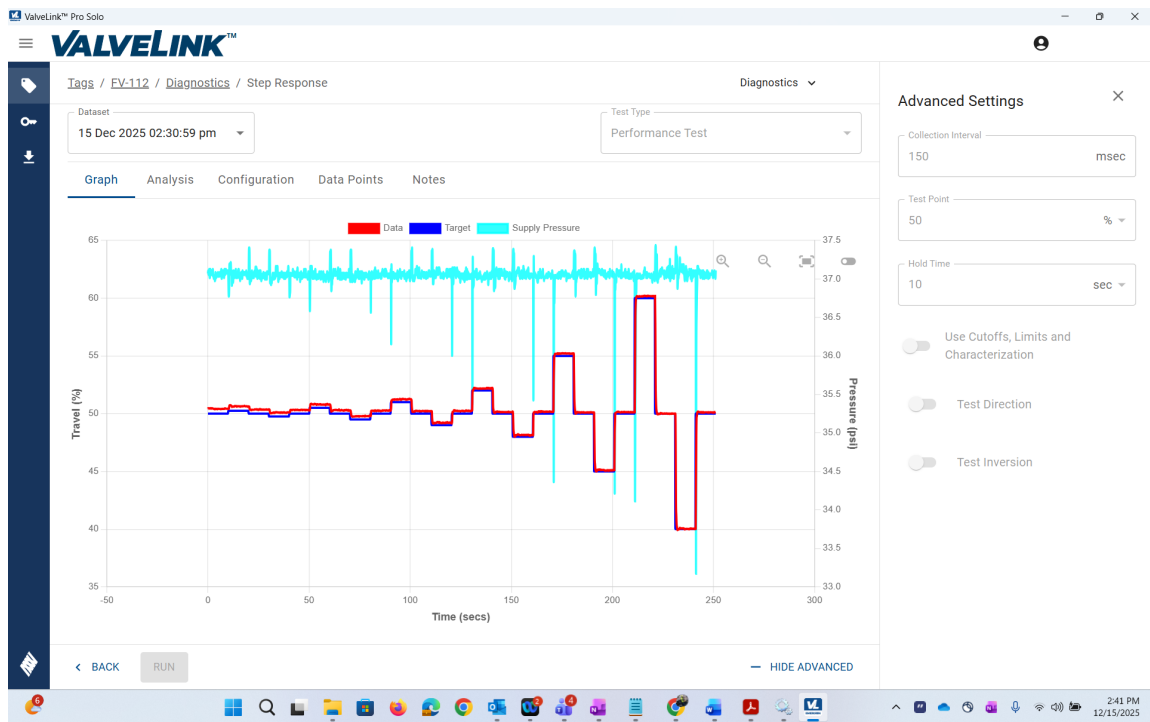
1. Configure the Performance Test diagnostic:
 - Advanced Settings
 - Data Collection Interval: the time between data point samples
 - Test Point: where in the valve travel you want the test to run (default is 50%)
 - Hold Time: the time allotted for the valve to settle after the step (default is 10 seconds)
 - Use Cutoffs, Limits and Characterization (disabled by default)
 - Test Direction: can be reversed, large steps progressing to smaller
 - Test Inversion: if the test started with a step to open the valve, inverting the test will change that to a closing step.
2. Click RUN to start the Performance Test.

Figure 27. Performance Test



The Performance Test takes 10 to 15 minutes depending on the actuator size. When completed the dataset graph, shown in Figure 28, is displayed.

Figure 28. Dataset Graph



Selectable options allow you to view Analysis, review the Configuration, view the Data Points, and make Notes about the test for future reference.

Expected results include:

- Rapid tracking of input changes
- Minimal or no overshoot
- Settles at or near each step
- No oscillation at steps

NOTE

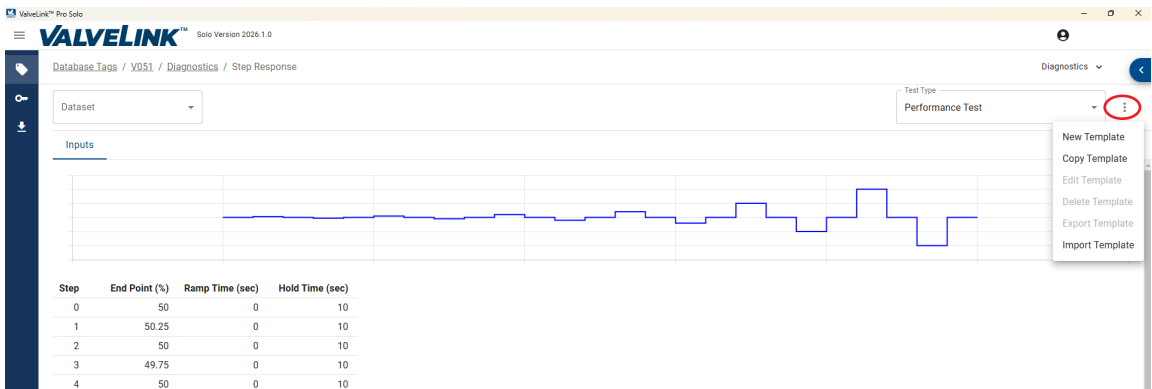
Large valves may not respond well to smaller step changes.

Press BACK to return to the Diagnostics page.

Example: Custom Step Tests

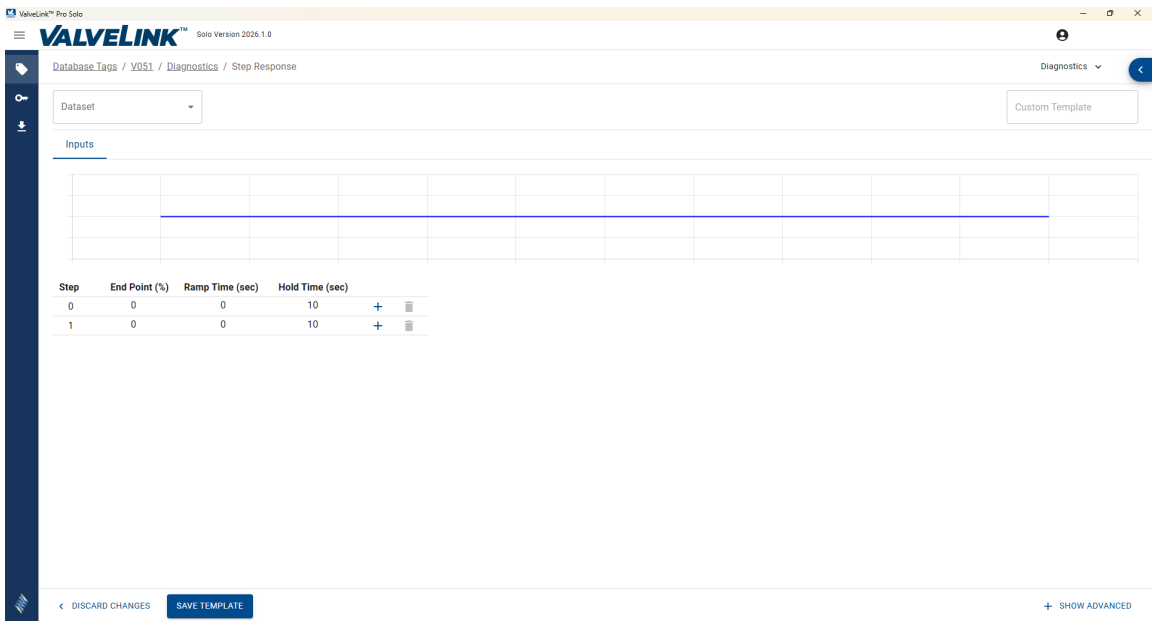
In addition to the seven pre-configured response diagnostics, custom step tests can be created, saved and shared. To create a new custom step test, select the overflow menu (three vertical dots). You can also create a new template, or import or modify an existing template.

Figure 29. New Custom Template



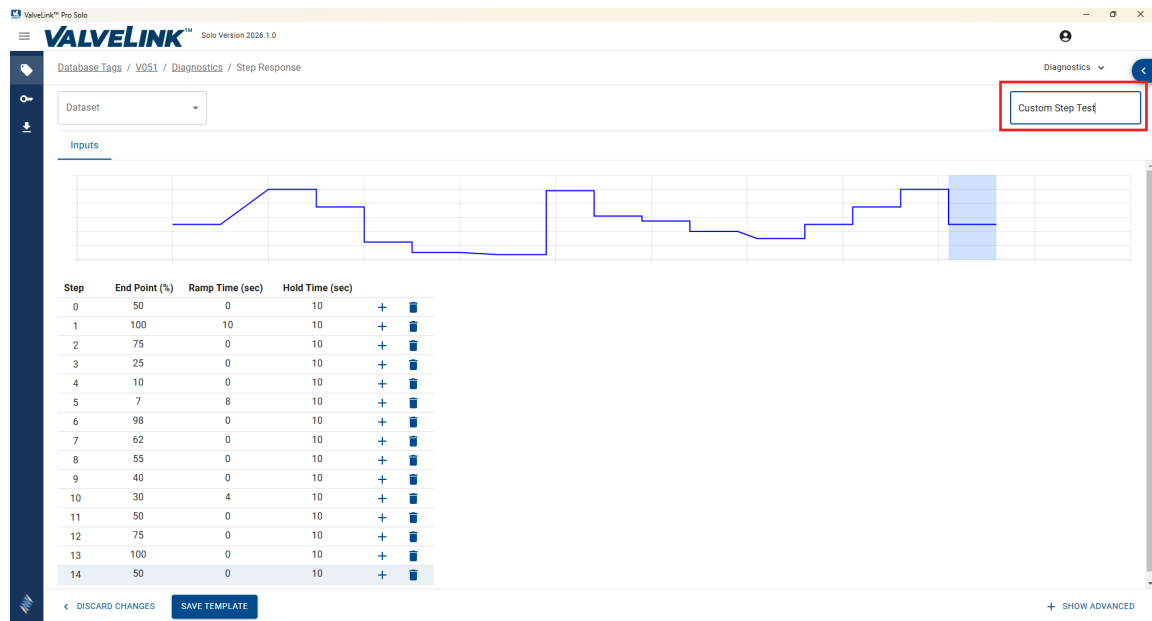
A custom step test is created by modifying the End Point (%), Ramp Time (sec), and Hold Time (sec) for each step. Additional steps (up to 32) can be added using the + button or removed using the delete button.

Figure 30. Creating Custom Template



To rename the step test template, enter the desired name in the upper right-hand box before the template is saved. Saved templates are available to run from the step response selection menu for the connected device.

Figure 31. Saving a Named Custom Template



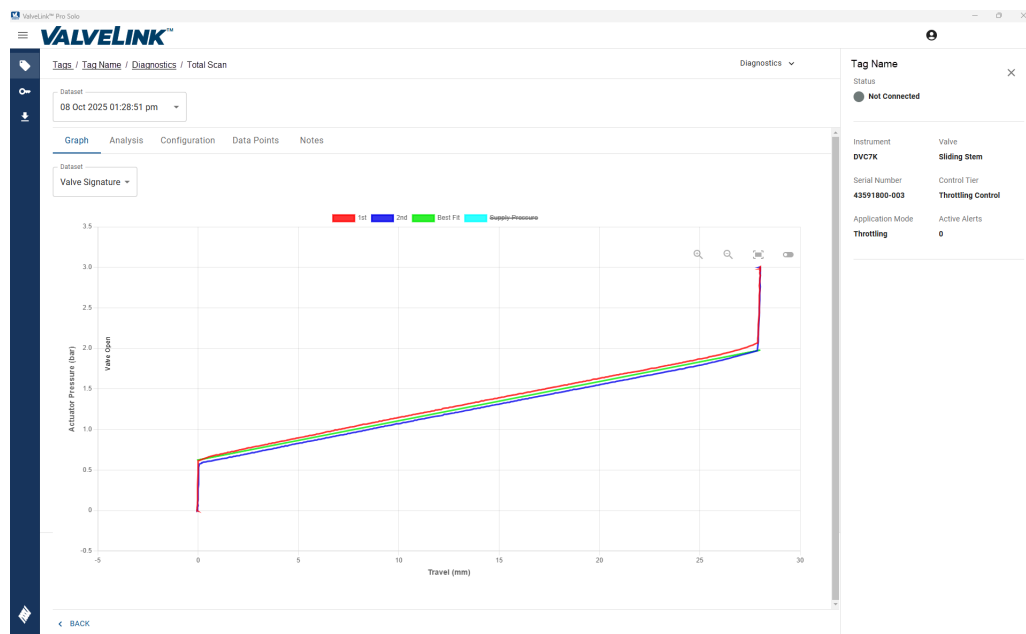
Total Scan

NOTE

AD tier is required to run new diagnostic tests.

Figure 32 shows an example of the Total Scan. The Total Scan is comprised of multiple tests: Valve Signature, Dynamic Error Band, Drive Signal, and Time Plot.

Figure 32. Dataset: Total Scan



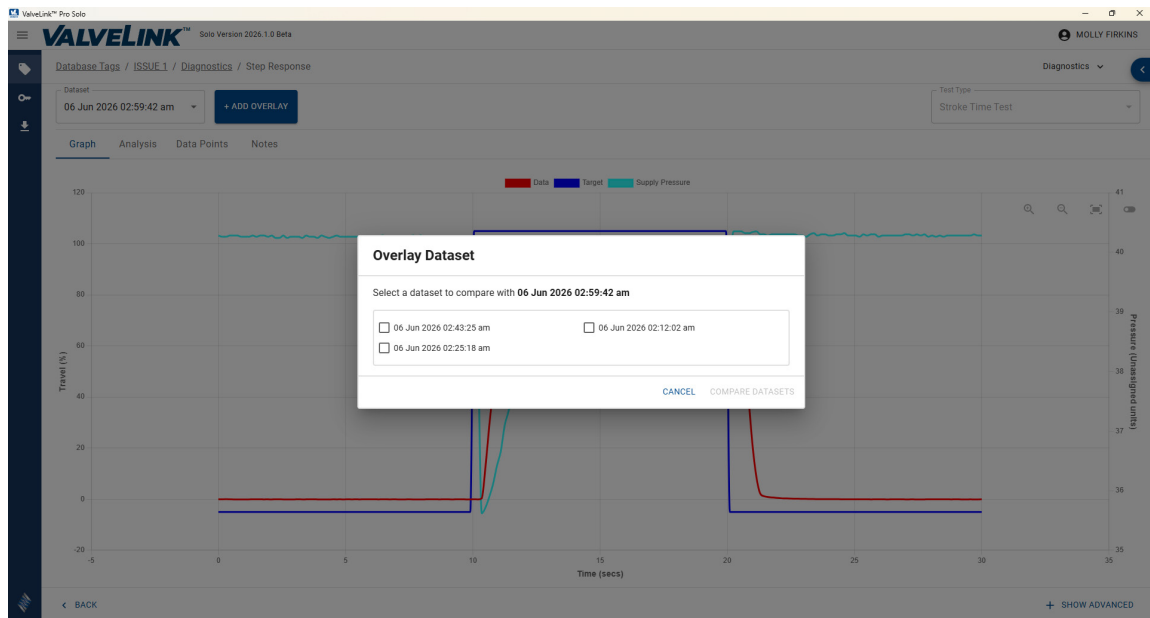
The software graphs the diagnostic, showing each direction of travel (red and blue) and the best fit line (green). Show or hide lines by clicking on the corresponding colored box in the legend.

The Total Scan's Analysis tab compares the measured values from the diagnostic test against the expected values based on the spec sheet and highlights values outside the normal range in yellow. Configuration, Data Points, and Notes provide additional details as indicated.

Graph Overlay

The graph overlay, available from the diagnostics screen, allows you to compare different diagnostic datasets (Figure 34). Select the dataset using the date and time of the test.

Figure 33. Overlay Dataset Selection

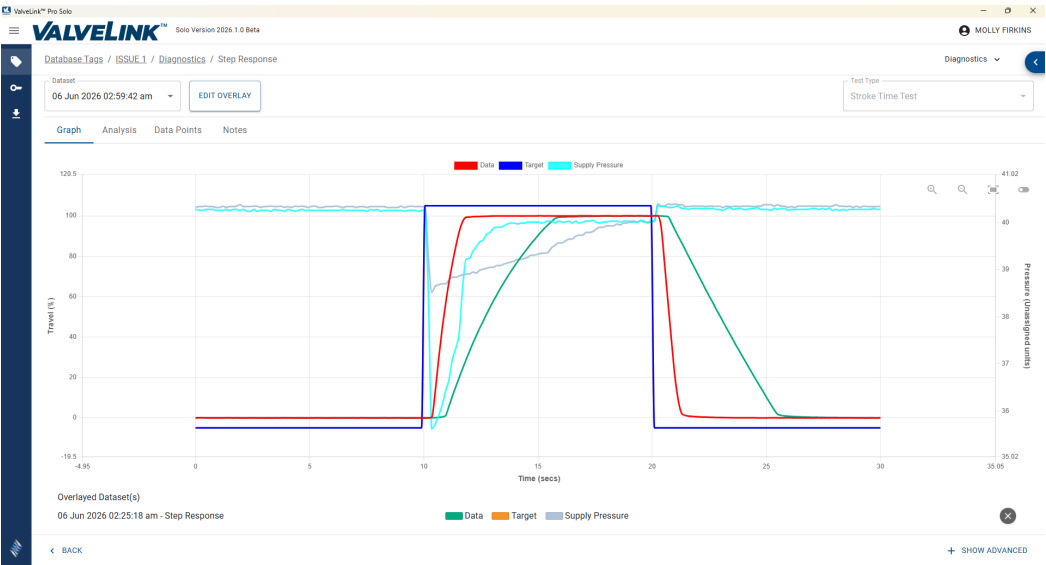


Software graphs show the diagnostic information for each of the datasets (Figure 35).

The legend for the baseline graph is shown at the top of the data, with data (red), target (blue) and supply pressure (cyan). The overlay legend is shown below, with data (green), target (gold) and supply pressure (gray).

Show or hide lines by clicking on the corresponding colored box in the legend.

Figure 34. Graph Overlay



DVC7K Dataset Management

The DVC7K digital valve controller serves as the primary source of truth for valve assembly data. It stores a comprehensive Spec Sheet based on ISA-20 standards and includes significant storage capacity for diagnostic and historical data. These datasets help monitor wear and changes in the assembly, including the mechanical operation, over time.

The initial Total Scan diagnostic (As Left condition at shipment) is critical and should be retained as the baseline for future comparisons. Subsequent diagnostics track valve health and performance throughout its lifecycle.

NOTE

Diagnostic datasets for DVC7K instruments are stored in the instrument memory. During the first connection with ValveLink Pro Solo, these datasets are transferred to the local database.

The first transfer of a dataset may take some time because the datasets are large; however after the initial transfer datasets are quickly retrieved.

Bluetooth communication is faster than HART® FSK communication.

View Datasets

NOTE

Existing datasets can be read with any tier.

To access a Diagnostic dataset on any of the Tags pages, click on the Tag ID as shown in Figure 35.

To access the Tags diagnostic data click on DIAGNOSTICS on the right-side sheet.

The Diagnostics page (Figure 36) provides the following information.

- Name: The name of the dataset.
- Source: The cable icon () indicates that the data is in the instrument memory. A server icon () indicates the data is in ValveLink Pro Solo database.
- Data/Time: When the dataset was created.
- Diagnostic: The type of diagnostic run.

Click on the name of the Diagnostic to open and view the desired diagnostic dataset.

Figure 35. View Diagnostics Datasets

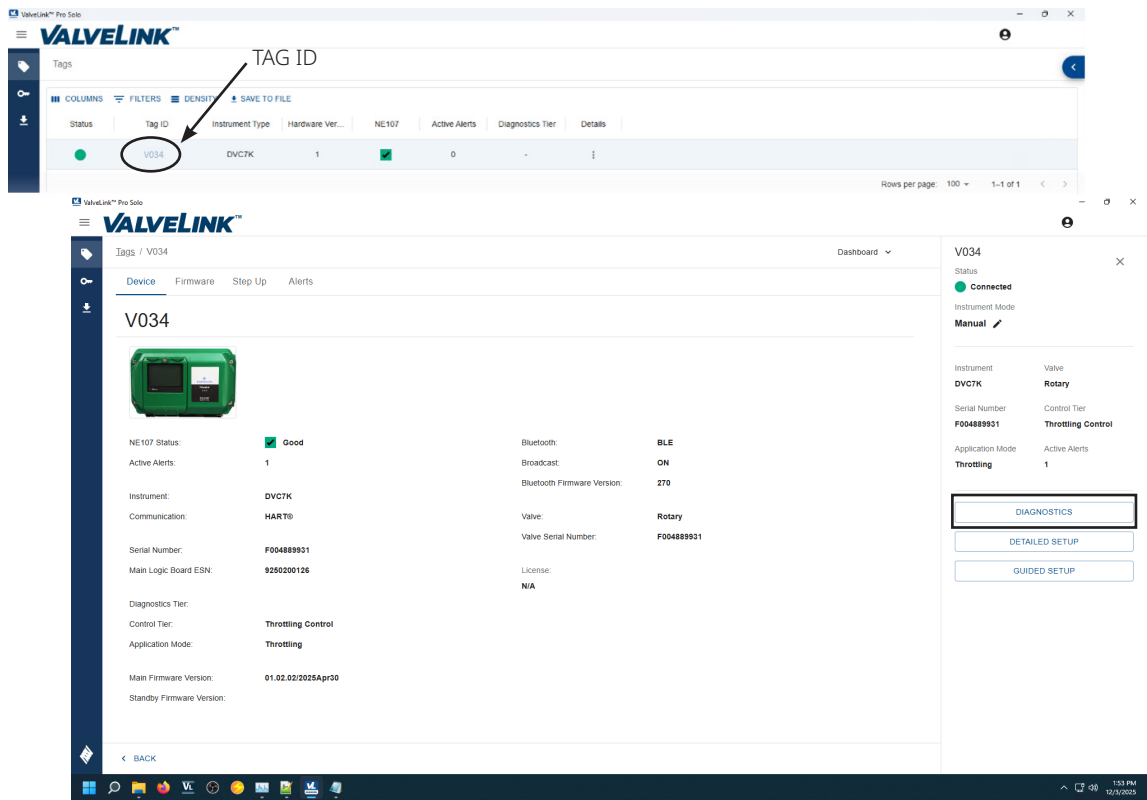
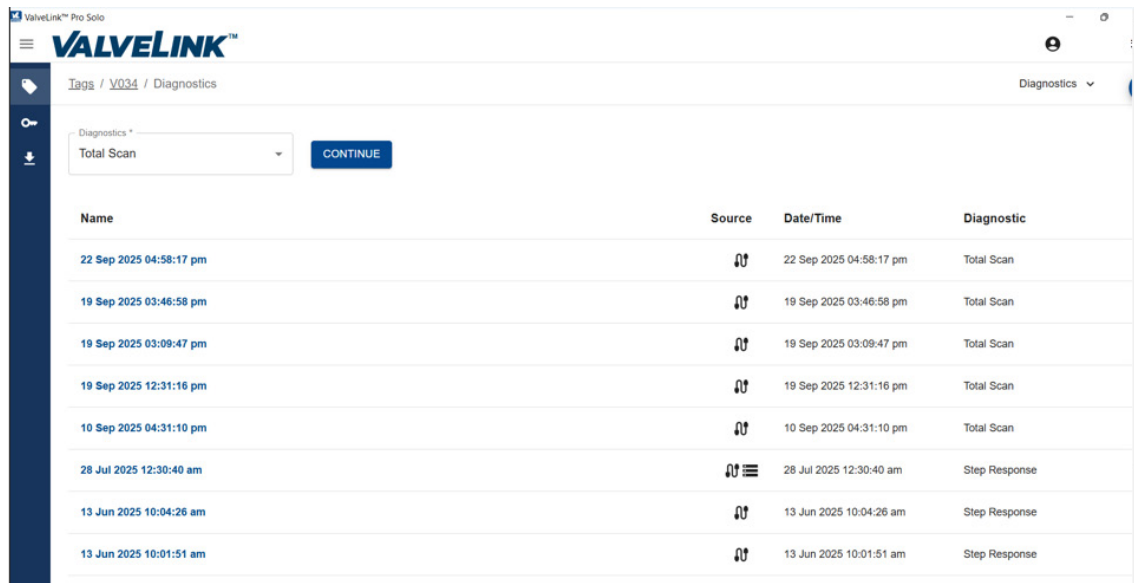


Figure 36. Diagnostic Datasets

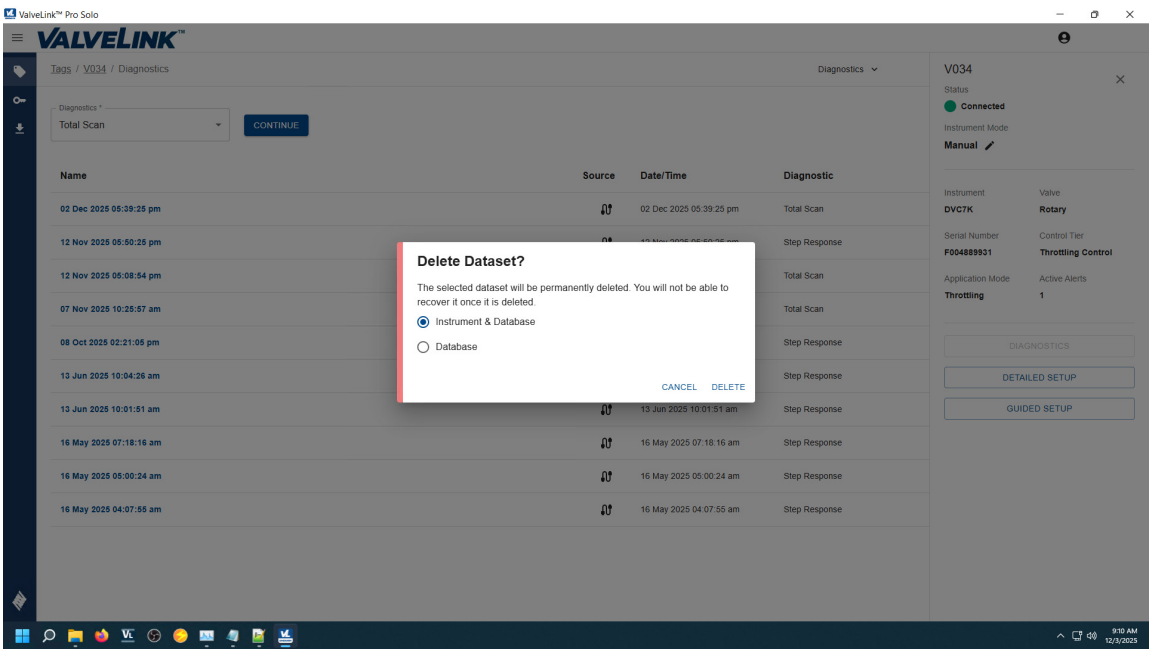


Delete Datasets

Memory Management in ValveLink Pro Solo allows you to delete non-essential datasets, such as intermediate tests run during service, while preserving key As Found and As Left scans. You can remove data from the ValveLink database only or from both the database and instrument memory (Figure 37).

Select DIAGNOSTICS on the Tags dashboard to access the datasets for any given tag.

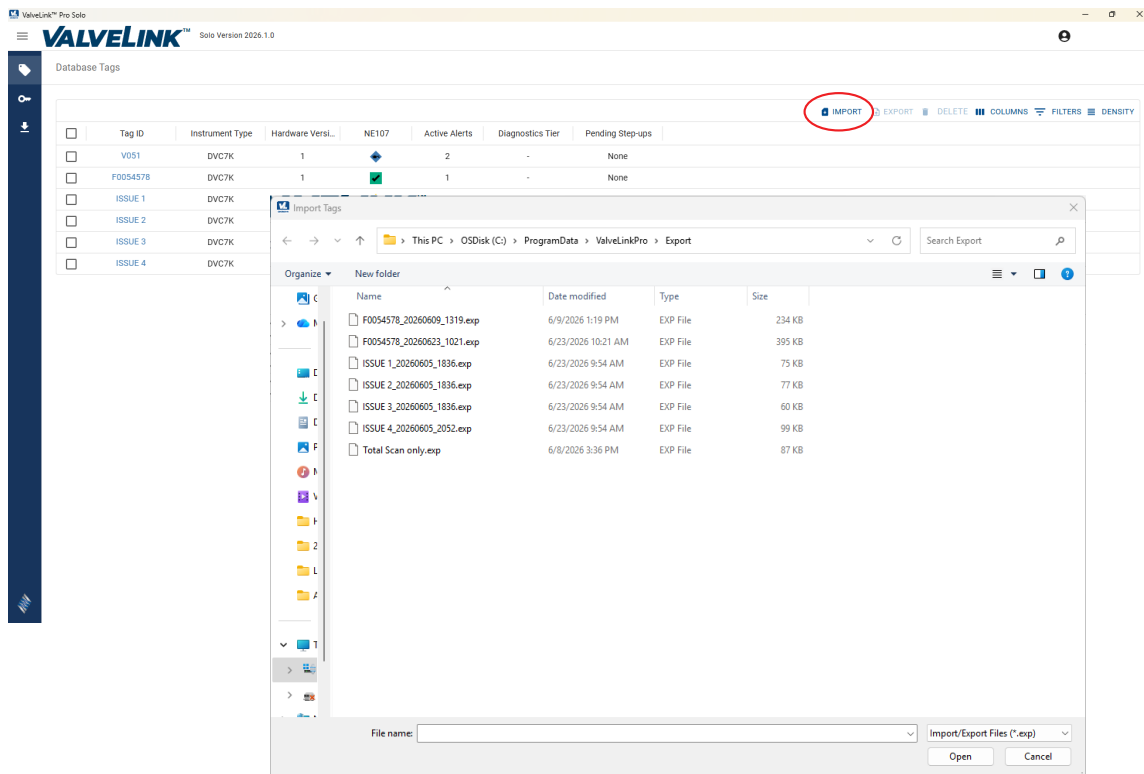
Figure 37. Delete Dataset



Import Datasets

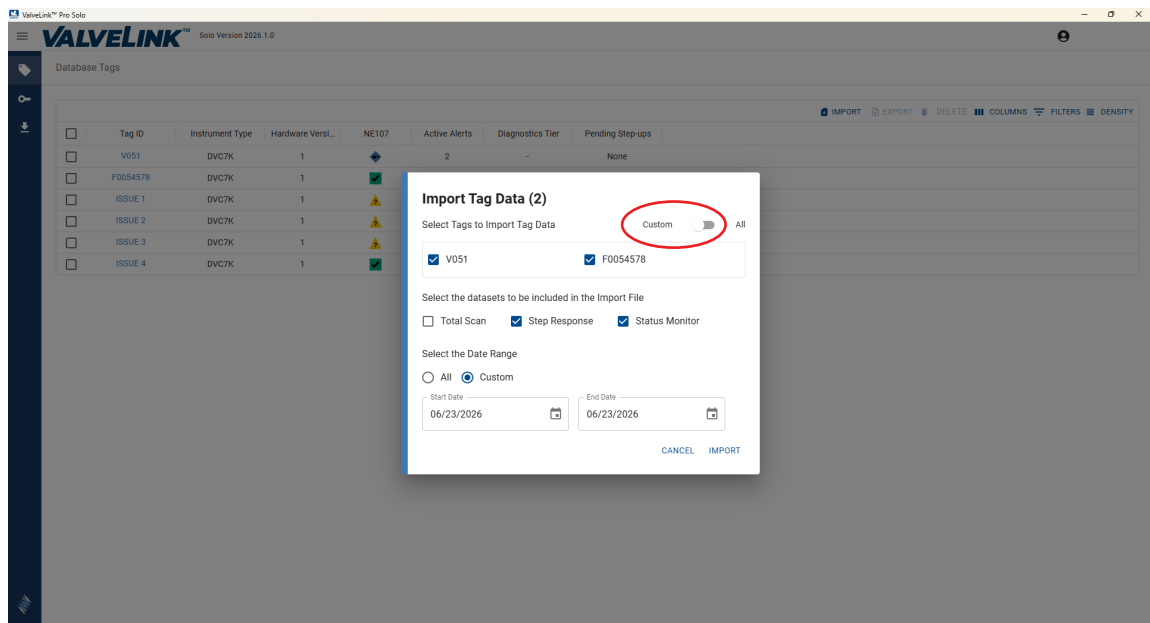
ValveLink Pro Solo allows you to import datasets from other instances of ValveLink Pro or directly from a DVC7K. To import a dataset, go to the Database Tags page (Figure 38) and click Import on the upper right-hand side of the screen. Then, browse to the folder that contains your dataset.

Figure 38. Import Dataset



By default, all datasets will be imported into the database. However, if there are multiple devices and multiple datasets in a single file, enable the custom slider bar to choose the specific items that need to be imported (Figure 39).

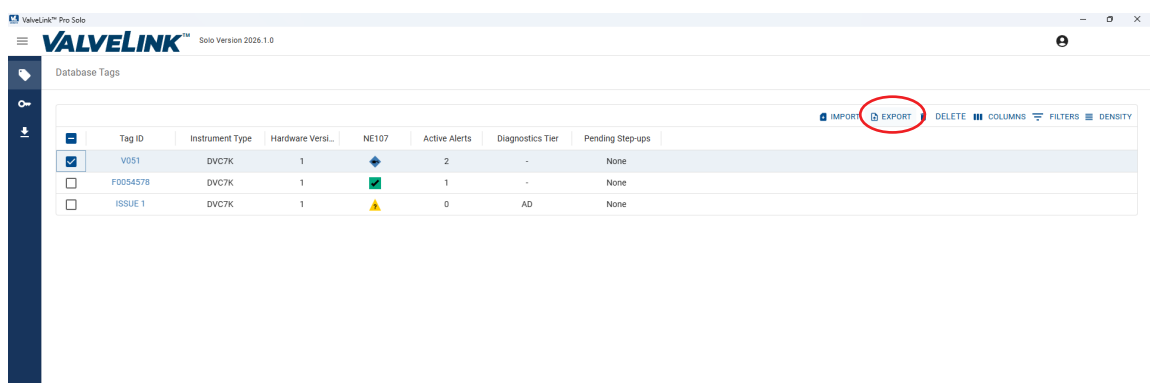
Figure 39. Import Dataset Custom Option



Export Datasets

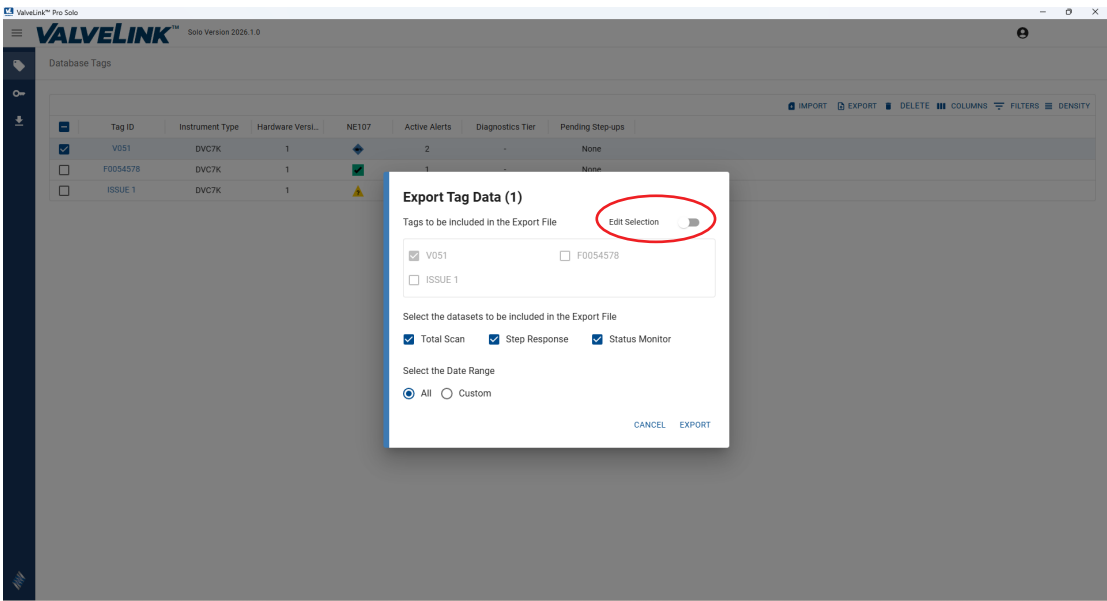
ValveLink Pro Solo allows you to export datasets to other instances of ValveLink Pro. Navigate to the Database Tags page (Figure 40). Select one or more tags to enable the Export button on the upper right hand side of the window.

Figure 40. Database Tags



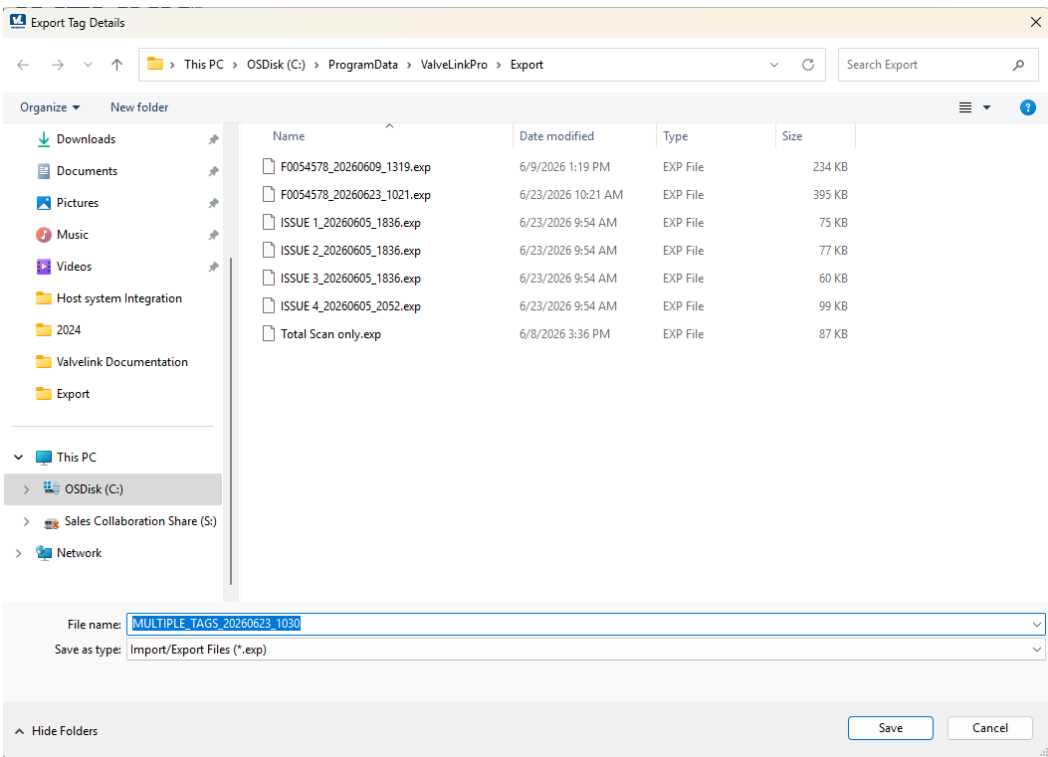
The Edit Selection slider may be used to specify the information contained in the exported dataset (Figure 41).

Figure 41. Export Dataset Custom Option



The dataset(s) may be named and exported to any folder (Figure 42).

Figure 42. Export Dataset Default Name and Location



4.4 Step-Up Licenses

Step-Up licenses are available from your [Emerson sales office](#) and are delivered via email to the email address specified on the order.

Step-Ups are available for Bluetooth and diagnostic tiers.

NOTE

The DVC7K serial number or EIN number is required to order a Step-Up.

NOTE

The licensed features of any instrument can be found on the Tags page; click on COLUMNS and add Bluetooth and Diagnostic Tier. The Device tab on the Tag detail page also shows what licenses have been applied to the instrument.

To add a Step-Up:

1. Click the Key icon () on the left side sheet to open the Step-Up Licenses screen.
2. Select CHOOSE FILE to open a Windows file selection dialog box.
3. Select the license file (*.lic).

NOTE

ValveLink Pro Solo will validate the file's integrity and associate it with the target instrument. A confirmation will appear when the license is accepted.

4. Connect to the instrument.
5. Open the Tag and click the Step-Up tab.
6. Click APPLY PENDING STEP-UPS to write the license to the instrument.

4.5 Firmware Management

Software Updates

Because ValveLink Pro Solo typically operates without internet access, software updates cannot be delivered automatically. You must manually download and install updates when available.

Firmware Updates

When ValveLink Pro Solo is connected to a DVC7K, the user is informed when a new update is available. Each firmware release contains fixes, feature improvements, and/or new functionality.

To ensure optimal device performance and compatibility with the latest ValveLink Pro features it is recommended to update your instrument firmware to the latest version.

NOTE

Updating Firmware via serial cable requires the Emerson Firmware Update Cable (GK03166X012). The update cable provides electrical isolation to protect the instrument.

Updating DVC7K firmware via the serial cable requires physical access to the instrument.

1. Take the instrument out of service and place in Manual mode.



WARNING

Before opening the instrument cover or connecting a serial cable, follow all applicable plant safety guidelines and procedures. These may include requirements for work authorization, electrical safety, and hazardous area precautions. Failure to comply can result in personal injury, equipment damage, or violation of site safety policies

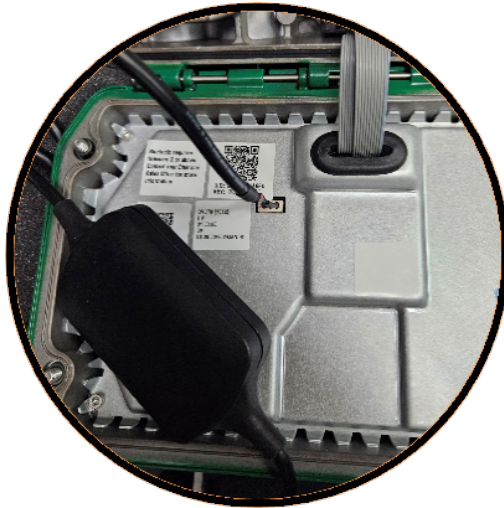
2. Open the DVC7K front cover and connect the USB cable to the PC to the serial update port on the back of the front cover, as shown in Figure 43.

NOTE

If the position transmitter output is connected, wires MUST be disconnected before performing a firmware upgrade.

NOTE

When you connect the USB cable to your computer, Windows will automatically assign it to a COMM Port.

Figure 43. Update Firmware via Serial Cable

3. Open ValveLink Pro Solo.
4. Click the Download icon () and select the appropriate firmware from the Available Firmware Versions.
5. Click the Update Firmware button.

NOTE

If the serial cable is not set up in the communications settings you will see a message indicating it must be set up before you can proceed.

To assign the COMM Port:

Open Windows Device Manager and locate the USB Serial Port under Ports (COM & PLT). ValveLink Pro Solo will identify the likely COMM port in the dropdown options presented. Select the correct COMM port and press ADD.

6. You will be prompted to cycle the power on the instrument to proceed.

NOTE

The firmware update will begin once the instrument is restarted. Once complete (approximately 2 to 3 minutes) a message will appear indicating that the firmware update has completed successfully.

7. Open the Tags tab to verify the firmware was updated successfully.

Section 5: Technical Support

ValveLink Pro Solo includes a built-in feature designed to streamline troubleshooting. This function captures:

- Relevant log files
- Local host system details
- A text field for you to describe the issue, including optional screenshots and any additional context

The information is saved as a ZIP file on your Windows Desktop. Email this file to your [Emerson sales office](#) for support.

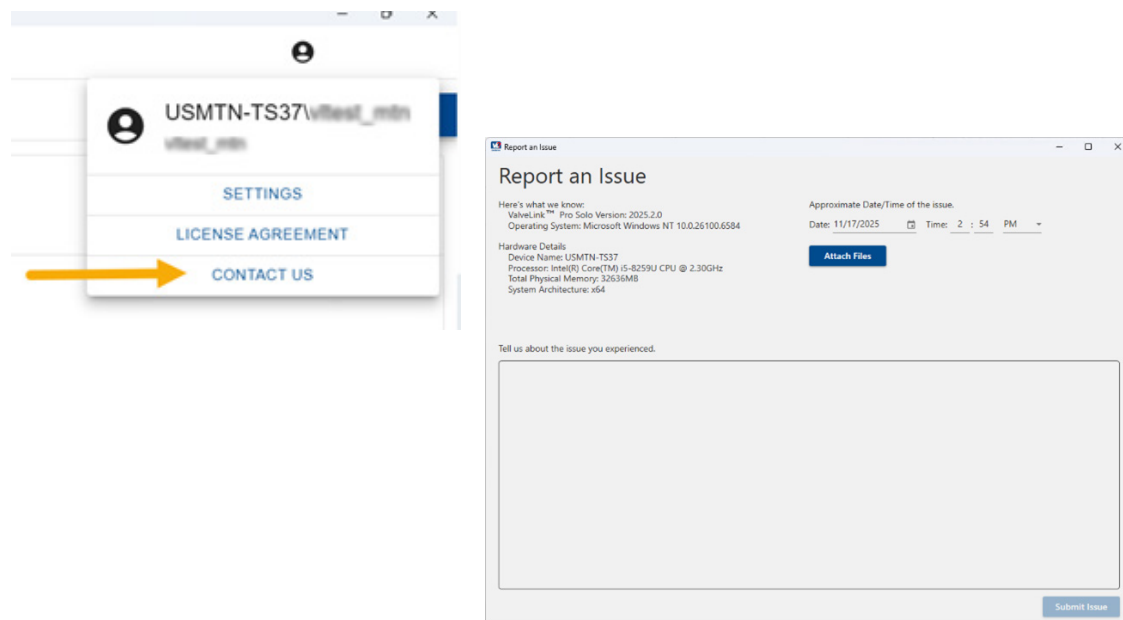
Select CONTACT US under User Profile to Report an Issue (Figure 44).

NOTE

Enter as much detail as possible about the issue, including the time that it occurred and what may have led to event. Screen shots and export report files can also be attached.

This feature can also be used to report issues or suggest enhancements to the software.

Figure 44. Reporting an Issue





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