

Overview

The Low Voltage Relay Station (LVRS) features 8 isolated, latching relay channels for completing low voltage or dry contact closures to third party systems or devices. The LVRS does not produce any power. Each relay is single-pole, double-throw, which offers a normally closed, normally open set of contacts. Each relay has a manual actuator or button on the front of the LVRS which manually toggles the relay and is useful for testing wiring and operation without programming the system. Some examples for using an LVRS would be: draperies, pumps, garage doors, HVAC dampers, lifts, screens, pool covers, sprinklers, showers, baths, security systems, etc.

Station Specifications

Description	Specification
Dimensions, HWD	4.69" x 6.56" x 1.25" 119mm x 167mm x 32mm
Weight	1.5lbs 8oz -or- 680g
Mounting	standard 3 gang electrical box
Relay Inputs	8
Relay Actuators	8
Max. Current @ Relay	1A
Max. Voltage @ Relay	48VAC / 30VDC
Min. Voltage @ Relay	0VAC / 0VDC
Lightning Surge Protection Low Voltage	ITU-T K.20
Station Wiring configuration	Daisy-chain/Star/Branch
Station Bus Specification	2C, 16AWG / 1.31mm ² , twisted, non-shielded, <30pF per foot. Separate a minimum of 12" / 30.5cm from other parallel communication and/or high voltage runs.
Station Equivalent InFusion	0.6W on IC-24
Station Equivalent QLink	1 Station
Station Bus connections*	24V Station Bus <i>only</i>
LED Indicators	Status and Load State
Finish	Faceplate and trim have a Black Anodized finish
Ambient Operating Temperature	0-40°C / 32-104°F
Ambient Operating Humidity	5-95% non-condensing

***CAUTION:** 36V stations have a **36** symbol on the Serial Number sticker. Any station, not displaying this symbol, should not be connected to a 36Volt Station Bus.

Software/Firmware

Compatible with InFusion Design Center software or all versions of QLink Software and Firmware. For new projects it is recommended that firmware and software be kept to the most current release.

Installation

Installation of Vantage products should be performed or supervised by a *Certified Vantage Installer*. The Low Voltage Relay Station installation is very simple. There are two methods of connecting the Station Bus to the Low Voltage Relay Station:

- a. Using the 2 wire pigtail connection located on the rear of the LVRS
- b. Using the Station Bus connection on the removable screw terminal connectors (see drawing)

Mount in a standard 3 gang electrical box. Vantage recommends using a deep box to allow room for wiring. All low voltage connections to the LVRS relays are wired to removable screw terminal connectors. Four relays are available on the left screw terminal connector, labeled 1-4, and 4 relays are available on the right screw terminal connector, labeled 5-8. These relays may be given custom names in software to facilitate their use in the installation.

Connecting Device Requirements

Each individual low voltage contact is rated as follows:
Maximum Current = 1A
Maximum Voltage = 48Vac / 30Vdc

Station Set Up in Software

InFusion: First select the room, then click on *Vantage Objects* in the *Object Explorer* and expand *Stations, WireLink*. From the list of stations double click on the *Low Voltage Relay Station* to place it in the room. In the *Object Editor*, name the station and make sure it is on the correct station bus port.

QLink: First change to Wiring view, right click on the Main Controller and from the pop-up menu, select *Add WireLink Stations | Low Voltage Relay* from the station list. This will reveal the *Low Voltage Relay Station Definition* Dialog Box. Type the name of the Station. Click OK to exit the Definition window. Right click on the station and select *Add Low Voltage Relay* to add the relay loads. In the *Relay Definition* window, name the relay and assign it to the correct floor and room.

Programming the Relay Station

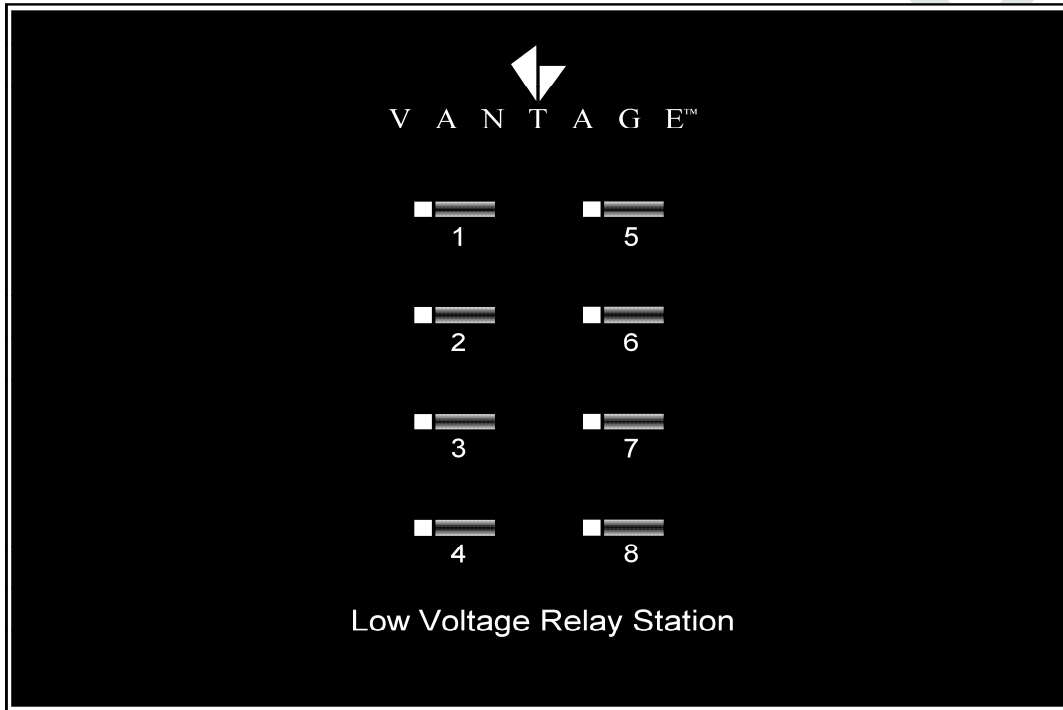
Because they are relays the eight buttons on the LVRS cannot be programmed directly. Programmed Buttons, Time Controls or Host Commands in InFusion and V-Commands in QLink are used to control the relays. The relays are accessed by selecting the relay load in Programming.

Configuration

When the station is first connected to the Station Bus, the diagnostic LED will blink twice followed by a pause, meaning that the station is connected correctly but not yet configured. From Design Center, click on the *Configure Stations* button on the toolbar or from QLink, select *System | Configure Stations* and click on the radio *Configure* button in the *Online Configuration* section from the pull down menu. Highlight the LVRS. The Status LED will blink 5 times followed by a pause indicating that the station is in configuration mode. To finish configuring press any button on the Station 3 times. The station may also be configured by typing the serial number in the project file, using this method the station will automatically be configured when the system is programmed. Once configured the Status LED will blink evenly and the buttons stop blinking.

Diagnostic LED (Status)

The LED blinks steady on and off for 2, 3, 4, or 5 blinks followed by a pause:
One Even Blink: LVRS is operating correctly and is configured.
Two Blinks: LVRS is operating correctly but is not configured.
Three Blinks: LVRS is not communicating with the Main Controller. Check Station Bus Wire connections.
Four Blinks: Factory problem. Please contact the factory.
Five Blinks: LVRS is in configuration mode.



VANTAGE – LVRS (Low Voltage Relay Station)

Traditional With Black Trim & Face Plate

