DVS-G928W01

Hardware Installation Guide

Published: March, 2018

FCC Interference Statement

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates radio frequency signal and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CE Declaration of Conformity

The DVS series switches are CE certificated products. They could be used in any kind of the environments under CE environment specification. For keeping more safe application, we strongly suggest to use the CE-compliant industrial enclosure products.

Warning

- ✓ This instruction sheet only provides information on electrical specifications, general specifications, installation and wiring.
- ✓ The components and the IC on the circuit board can be easily damaged by static electricity; therefore DO NOT touch them before precautions against static electricity are done. To prevent the danger and damage from occurring, people who are not maintenance staff should not operate or accidentally hit the body of the DVS series switch. Besides, DO NOT touch any terminal when the power is switched on.
- ✓ This product is equipped with Class 1 LASER/LED components. DO NOT stare directly at the LASER/LED beam to avoid serious injury to your eyes.
- ✓ Please read this instruction sheet thoroughly, and follow the instructions to prevent the damage to the device or injury to the staff.

Overview

Thank you for purchasing the DVS Layer 3 Managed Industrial GbE Modular Rack Mount Ethernet Switch. The DVS series switches are equipped with the intelligent alarm, digital input function, and allow the wide range of operating temperature (-40 to 85℃). The DVS series switches are designed to support the application in any rugged environment and comply with UL, CE, FCC and CCC standards.

High Performance Network Technology

- 10/100/1000Base-T(RJ45 and M12), 100/1000Base-SFP Fiber, 1000Base-SFP Fiber
- IEEE 802.3/802.3u/802.3ab/802.3x/802.3z
- Auto negotiation speed
- Auto MDI/MDI-X

Industrial Grade Reliability

- 2 sets of AC/DC power input
- 2 sets of Relay Alarm

Robust Design

- Operating temperature: -40 to 85℃
- Storage temperature: -40~85℃
- Humidity: 5%~95% (non-condensing)
- Protection: IP30

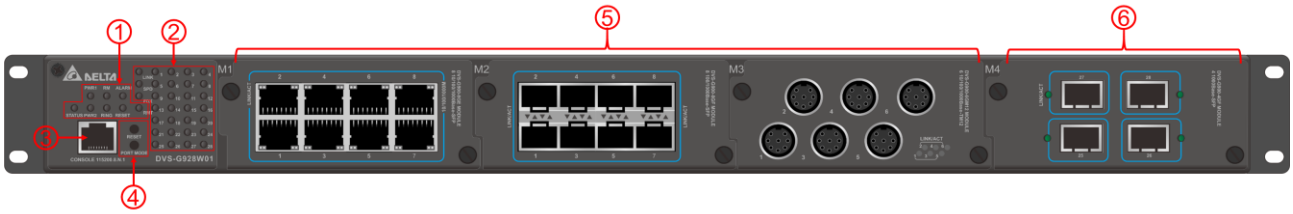
Package Checklist

- Delta DVS series Layer 3 Managed Ethernet Switch
- Protective Caps for unused RJ45 ports, M12 ports and SFP fiber ports(insert to the module)
- RS232 to RJ45 console cable
- User manual and software CD
- Instruction sheet
- Accessories package

MTBF (Mean Time Between Failures)

More than 647,420 hours.

Front Panel Instruction



No	Description
1	System indication LEDs: STATUS/PWR1/PWR2/R.M/RING/ALARM/RESET/RMT
2	Port status LEDs: LINK/SPD/FDX/port number
3	RJ45 CONSOLE port
4	Buttons: RESET/PORT MODE (Press **RESET** for 3 seconds to reset and 5 seconds to return to factory default. To change port LED mode, press the **PORT MODE** button)
5	RJ-45/SFP/M12 module slots
6	4 port SFP module slot

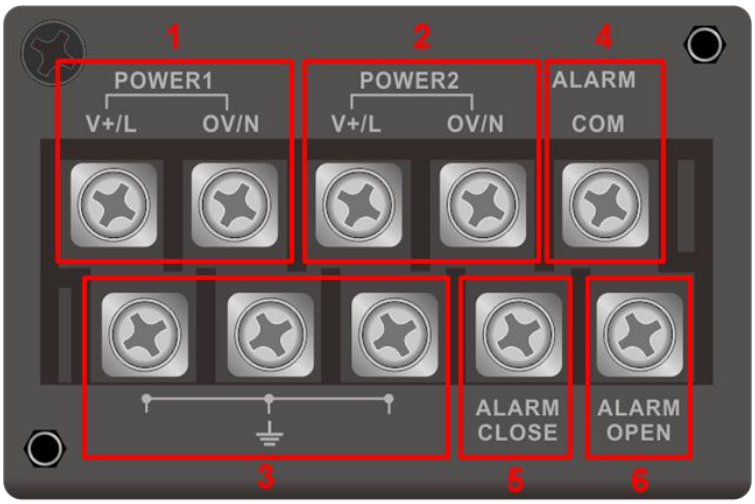
LED Indicators

LED	Color	Status	Description
STATUS	Green	ON	The DC is power on.
		Blinking	Upgrading firmware.
		OFF	The DC is power off.
PWR1/ PWR2	Green	ON	The power is supplied normally.
		OFF	The power is not supplied.
10/100/1000M (RJ45, M12)	Green	ON	The port is connected at 1000 Mbps.
	Amber	ON	The port is connected at 10/100 Mbps.
	OFF		The port is disconnected.
100/1000M (SFP Fiber)	Green	ON	The port is connected at 1000 Mbps.
	Amber	ON	The port is connected at 100 Mbps.
	OFF		The port is disconnected.

LED	Color	Status	Description
1000M (SFP Fiber)	Green	ON	The port is connected at 1000 Mbps.
	OFF		The port is disconnected.
R.M	Green	ON	As a master of Redundancy Ring.
		OFF	As not a master of Redundancy Ring.
RING	Green	ON	The Redundancy Ring feature has been enabled.
		Slowly blinking	The Redundancy Ring structure is broken. (i.e. part of the ring is disconnected)
		Fast blinking	The Redundancy Ring feature has not been enabled.
ALARM	Amber	ON	An event which has been configured is happened.
		OFF	There is not any event which has been configured happened.
RESET	Green	ON	System is resetting to default.
		OFF	System is not resetting to default.
RMT	Green	ON	System is accessed remotely.
		OFF	System is not accessed remotely.
LINK	Green	ON	The port is link up.
		OFF	The port is link down.
SPD	Green	ON	The network communication connection has been established.
		Blinking	The data is being transmitted.
		OFF	The network communication connection has not been established.
FDX	Green	ON	Port works under full duplex.
		OFF	The port is not link up.
	Amber	ON	Port works under half duplex.
		OFF	The port is not link up.

Power installation

▪ Pin definition



No	Description
1	V+/L : Positive connection of PWR1 OV/N : Negative connection of PWR1
2	V+/L : Positive connection of PWR2 OV/N : Negative connection of PWR2
3	Grounding screw
4	Relay Common Contact
5	Relay Normal Open
6	Relay Normal Close

▪ Power input

Indicator	Description
PWR1	100 – 240 V_{AC} /125 – 370 V_{DC} (Tested @ 100 to 240 V_{AC})
PWR2	100 – 240 V_{AC} /125 – 370 V_{DC} (Tested @ 100 to 240 V_{AC})

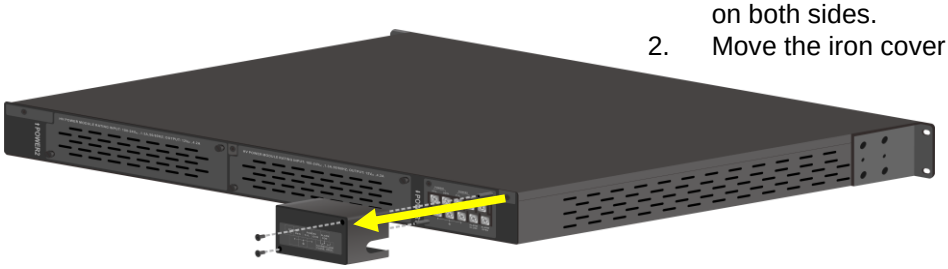
▪ Wiring power cord

Before powering on the switch, the power cord should be installing on the correct position and following the step as below:

Step1. Make sure the power source should be turn off.

Step2. Remove the iron cover from the power terminal block, and the operation step as blow:

1. Loosen the M3 screws up at torque 3~4 kg/cm on both sides.
2. Move the iron cover leftward.



Step3. Installing the power cable to the power terminal on the correct connect pin.

Step4. Adjust the power cable to appropriate direction.

Step5. Install the power iron cover onto the power terminal block.

Step6. Secure the screw tightly.

Step7. Turn on the power source.

Note:

1. We suggest you the AC and DC power voltage should be within the range, and the safety value marked on the iron cover included the AC input and DC input.
2. Make sure the power source is stable before you power on the AC/DC power inputs.

NOTE: Grounding the ground terminal on the DVS series switch can avoid the noise effect due to the electromagnetic interference (EMI).

	The input terminal block is defined as SERVICE ACCESS AREA, power cord set installed shall be by service persons.
	The equipment can be supplied from an external AC source(100-240V_{AC}) and DC source(125-370V_{DC}) that provides reinforced insulation with AC mains and DC mains. The devices is intended to be operated under altitude up to 6560ft(2000m), the power supply source comply with the requirement of 6560ft(2000m).
	A warning will be marked on the equipment in prominent position adjacent to the hot part.

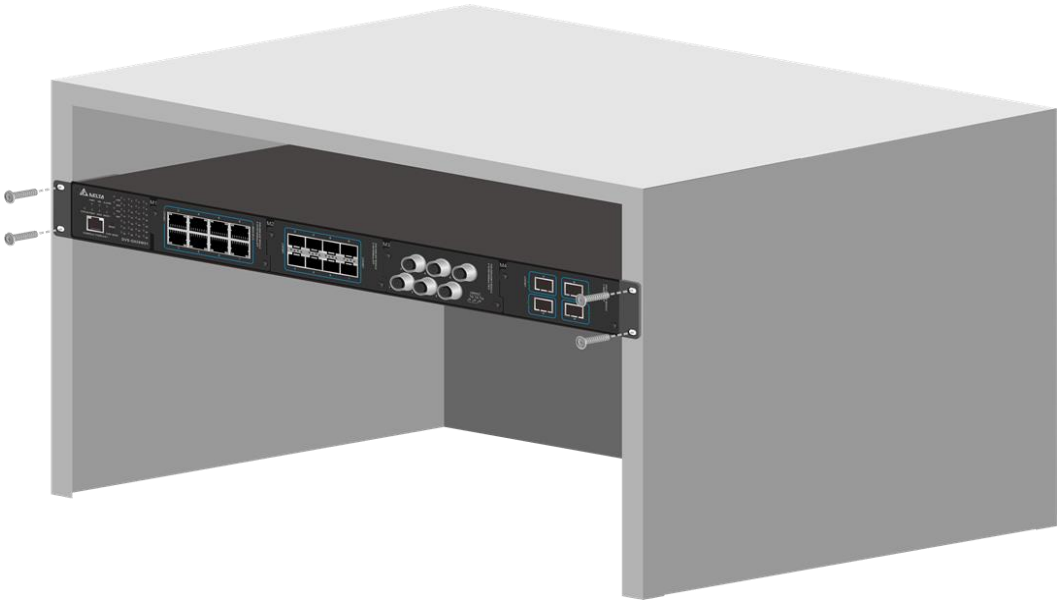
⏚	Grounding is a requirement. Do not lose the grounding screws or operate without a proper grounding system. Contact the appropriate electrical authority or an electrician if you are uncertain that suitable grounding is available.
⚠	RESTRICTED ACCESS LOCATION: Access can only be gained by SERVICE PERSONS who have been instructed about the reasons for the restrictions applied to the location and about any precautions that shall be taken; and Access is through the use of a TOOL or lock and key, or other means of security, and is controlled by the authority responsible for the location.
⚠	To completely remove power from the unit, first turn off power and remove all power cables.

Installation

▪ Rack Mounting

Step1: Use the M3 screws with screw up at torque 4~5 kg/cm to attach the two brackets the front panel of the switch, as shown in the diagram below.

Step2: With front brackets orientated in front of the rack, nest front and rear brackets together.
Step3: Fasten the front mounting bracket to the front of the rack.



Wiring the terminal block

▪ Relay Contact

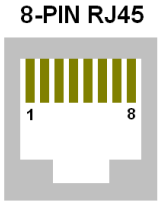
The switch provides alarm open and alarm close options for you to form relay circuits based on your needs. If you want the relay device to start operating at power failure, attach the two wires to COM and alarm close to form a close circuit, vice versa. The relay contact of the 2-pin terminal block connector will respond to user-configured events according to the wiring.

Ethernet Interface

▪ 10/100Base-T(X), 10/100/1000Base-T Connection

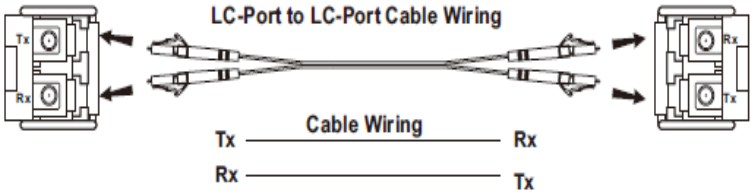
The 10/100Base-T(X) or 10/100/1000Base-T ports of the DVS series switches are used to connect to Ethernet. RJ45 ports support MDI (NIC–type) and MDI-X (HUB/Switch-type) modes, the pin definition of the Ethernet cable is as follows.

	10/100Base-T(X)		1000Base-T
PIN	MDI Mode	MDI-X Mode	MDI/MDI-X Mode
1	Tx+	Rx+	TP0+
2	Tx-	Rx-	TP0-
3	Rx+	Tx+	TP1+
4	n.c.	n.c.	TP2+
5	n.c.	n.c.	TP2-
6	Rx-	Tx-	TP1-
7	n.c.	n.c.	TP3+
8	n.c.	n.c.	TP3-



▪ 100/1000Base-SFP Fiber Connection

Each SFP module has TX and RX interface, make sure the fiber connect TX interface to RX interface between two SFP modules.



Mechanical Characteristics

Case	IP30 metal case
Dimension(mm)	44 (H) x 440(W) x 325(D)
Weight(g)	6600

◆ **For more information about the product, please visit http://www.deltaww.com**