

# DVS-005 Series

## Unmanaged Industrial 5-Port FE Ethernet Switches



- ▶ 12 to 48 V<sub>DC</sub> redundant terminal block power input
- ▶ Auto warning by relay output for link-down and power failure
- ▶ Compatible with various industrial protocols, including EtherNet/IP, Profinet, CC-LINK IE, and DNP 3.0



## Specifications

### TECHNOLOGY

#### Standard Compliance

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-T(X) and 100Base-FX
- IEEE 802.3x Flow Control

#### Processing Type

- Store and forward
- IEEE 802.3x flow control in full duplex, back-pressure flow control in half duplex

### INTERFACE

#### Fast Ethernet

##### RJ45 Ports:

- 10/100Base-T(X), auto MDI/MDI-X, auto negotiation

##### Fiber Optic Ports:

- 100Base-FX (SC connector), MultiMode or SingleMode

#### LEDs

##### Per Device:

- ALARM, PWR1, PWR2

##### Per Port:

- 100M (RJ45 port), 100M (fiber port), LINK/ACT

#### DIP Switches

Port link-down alarm configuration

#### Alarm Contacts (DO)

- 1 relay output
- Carry current 2A@24V<sub>DC</sub>

### PERFORMANCE AND SCALABILITY

#### Switching Capacity

- 1Gbps, wire-speed, non-blocking switching fabric

#### Forwarding Rate

- 1.5Mpps

#### MAC Address Table

- 1K

#### Packet Buffer Memory

- 512K bits

### POWER REQUIREMENTS

#### Input Voltage

##### DVS-005W series:

- 2 sets, 12 to 48 V<sub>DC</sub> redundant terminal block power input

##### DVS-005I00:

- 1 set, 12 to 48 V<sub>DC</sub> terminal block input

#### Input Current

- Max. 0.24A

#### Overload Current Protection

- Present, max. input current 3A

#### Reverse Polarity Protection

- Present

#### Buffer Time

- Min. 13ms at 24V<sub>DC</sub>

### PHYSICAL

#### Housing

- IP40 metal case

#### Dimensions

- 145.3mm (H) x 45mm (W) x 108.7mm (D)

#### Weight

- 300g

#### Installation

- Industrial DIN-Rail and wall mounting

## ENVIRONMENTAL LIMITS

### Operating Temperature

#### DVS-005W series:

- -40°C to 75°C (-40°F to 167°F)

#### DVS-005I00:

- -10°C to 60°C (14°F to 140°F)
- Tested @ -25°C to 70°C (-13°F to 158°F)

### Storage Temperature

- -40°C to 85°C (-40°F to 185°F)

### Ambient Relative Humidity

- 5% to 95% (non-condensing)

## APPROVALS

### Safety

- UL 508, EN 60950-1, IEC 61131-2

### EMI

- FCC 47 CFR Part 15 Subpart B Class B, IEC 61000-6-4, EN 55022(CISPR22),

### EMS [IEC 61000-6-2, EN 55024(CISPR24)]

- IEC 61000-4-2 level 3, IEC 61000-4-3 level 3, IEC 61000-4-4 level 4, IEC 61000-4-5 level 3, IEC 61000-4-6 level 3, IEC 61000-4-8 level 4, IEC 61000-4-29

### Environmental Type Tests

#### Cold Temperature:

- IEC 60068-2-1

#### Dry Heat:

- IEC 60068-2-2

#### Humidity:

- IEC 60068-2-30

#### Shock:

- IEC 60255-21-2

#### Freefall:

- IEC 60068-2-32

#### Vibration:

- IEC 60068-2-6

#### Hi-Pot:

- 1.5KV

## Fiber optics

	100Base-FX	
	MultiMode	SingleMode
Cable	62.5/125µm, 50/125µm	9/125µm
Wavelength	1310nm	1310nm
Max. TX Power	-14dBm	-8dBm
Min. TX Power	-20dBm(1) -22.5dBm(2)	-15dBm
RX Sensitivity	-31dBm	-31dBm
Optical Budget	11dBm(1) 8.5dBm(2)	16dBm
Max. Link Distance	5km	30km

(1) 62.5/125µm fiber optic cable (2) 50/125µm fiber optic cable

**Note:** The actual link distance of a particular fiber optic link depends on the optical budget, the number of connectors and splices, and cabling quantity. Please measure and verify the actual link loss values once the link is established to identify any potential performance issues.

## Ordering Information

Product		Port Combination			Interface		
Model Name	Operating Temperature	10/100 Base-T(X)	100Base-FX		DI	DO (Relay)	Power Input
			SC Connector, MultiMode, 5km	SC Connector, SingleMode, 30km			
DVS-005I00	-10°C to 60°C	5	---	---	---	---	1
DVS-005W01	-40°C to 75°C	5	---	---	---	1	2
DVS-005W01-MC01	-40°C to 75°C	4	1	---	---	1	2
DVS-005W01-SC01	-40°C to 75°C	4	---	1	---	1	2

### Optional Products

DVP/CiQ/PMC Series: 12/24 V<sub>DC</sub> Industrial Power Supply