

Optimizing Your Industrial Networks
Trusted • Robust • Intelligent



Automation for a Changing World

Delta Unmanaged Industrial Ethernet Switches DVS Series



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 **DELTA**
Smarter. Greener. Together.

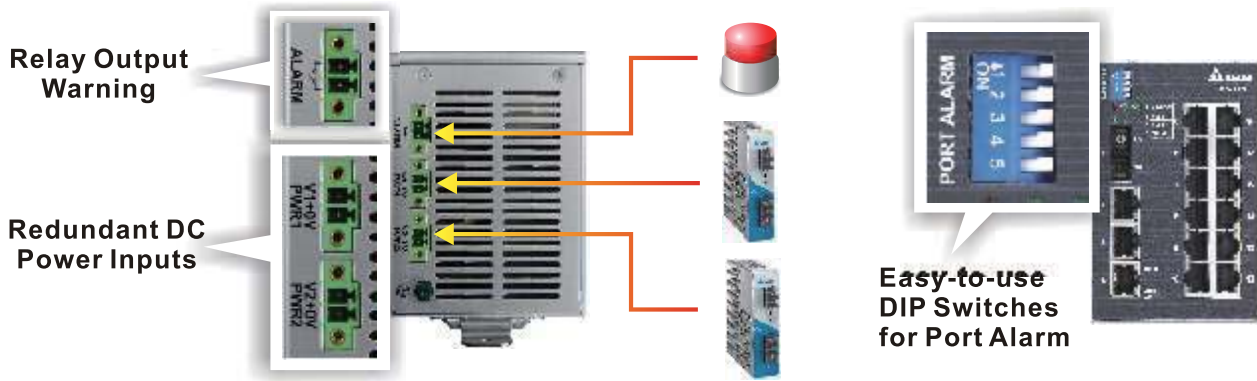


DVS Ethernet Switches Deliver Best Performance for Any Industrial Environment

DVS-005/008/016 series are industrial Ethernet switches that support IEEE 802.3 10Base-T and IEEE 802.3u 100Base-T(X), IEEE 802.3x full-duplex flow control, and auto-MDI/MDI-X, that are specifically designed for harsh and hazardous industrial environments. DVS-005/008/016 series offer an excellent ruggedized hardware design with 12 to 48 VDC redundant power inputs and a wide operating temperature range of -40°C to 75°C (except DVS-005I00) without the use of internal fans, providing superior reliability. DIP switches for a built-in alarm relay function assist network engineers with notification when port link-down and power failures occur. In addition, for the best network performance, broadcast storm protection can ensure high network bandwidth. The switches require no setup and start operating immediately as soon as they are powered up, and are easily installed with industrial grade DIN-Rail and wall mounting. DVS-005/008/016 series comply with UL, CE and FCC standards to guarantee reliable transmission in heavy electrical surge and EMI environments.



UL 508 Industrial Control Approval
High level EMS: LEVEL 3 protection



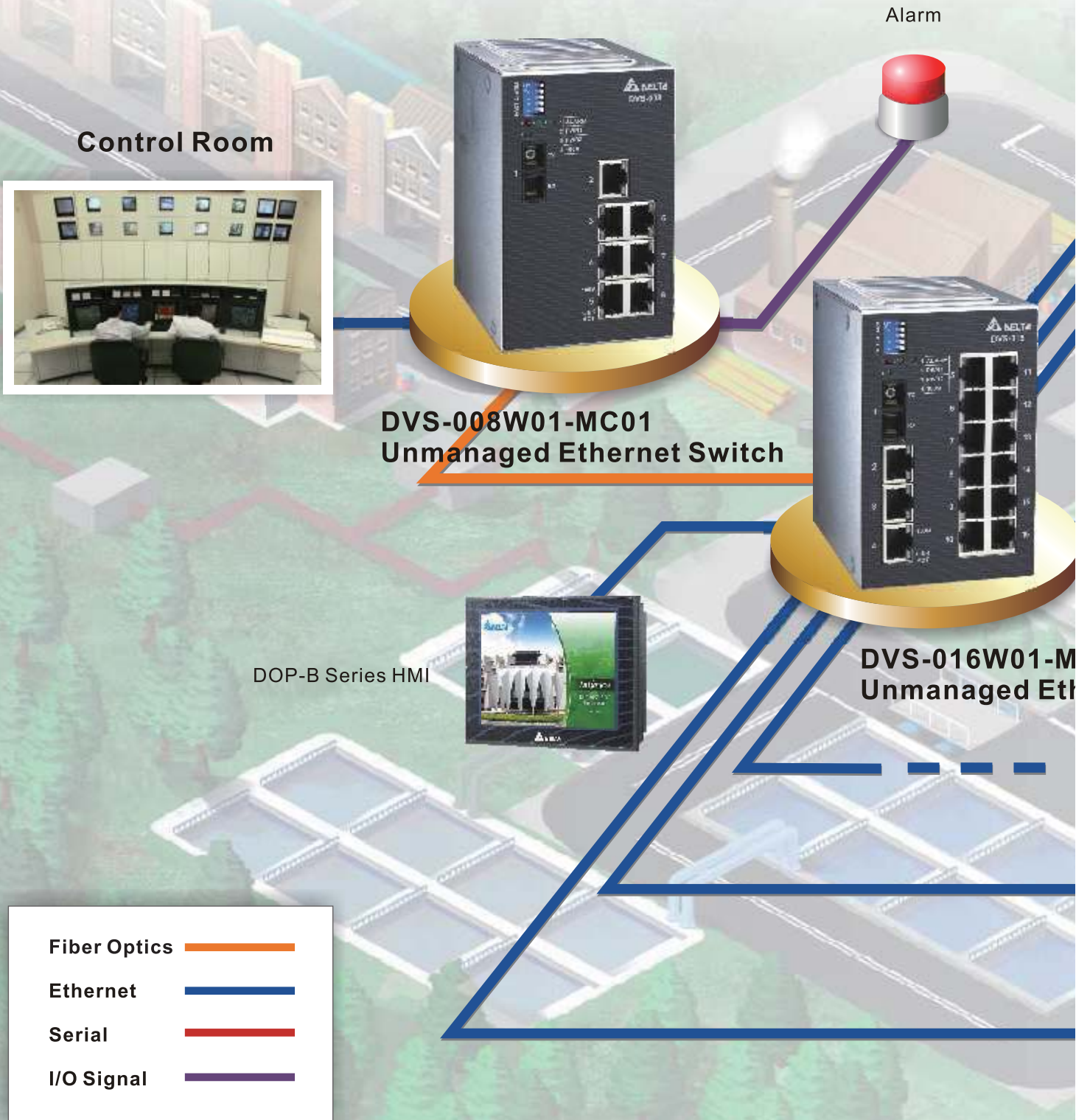
IEEE 802.1p based QoS

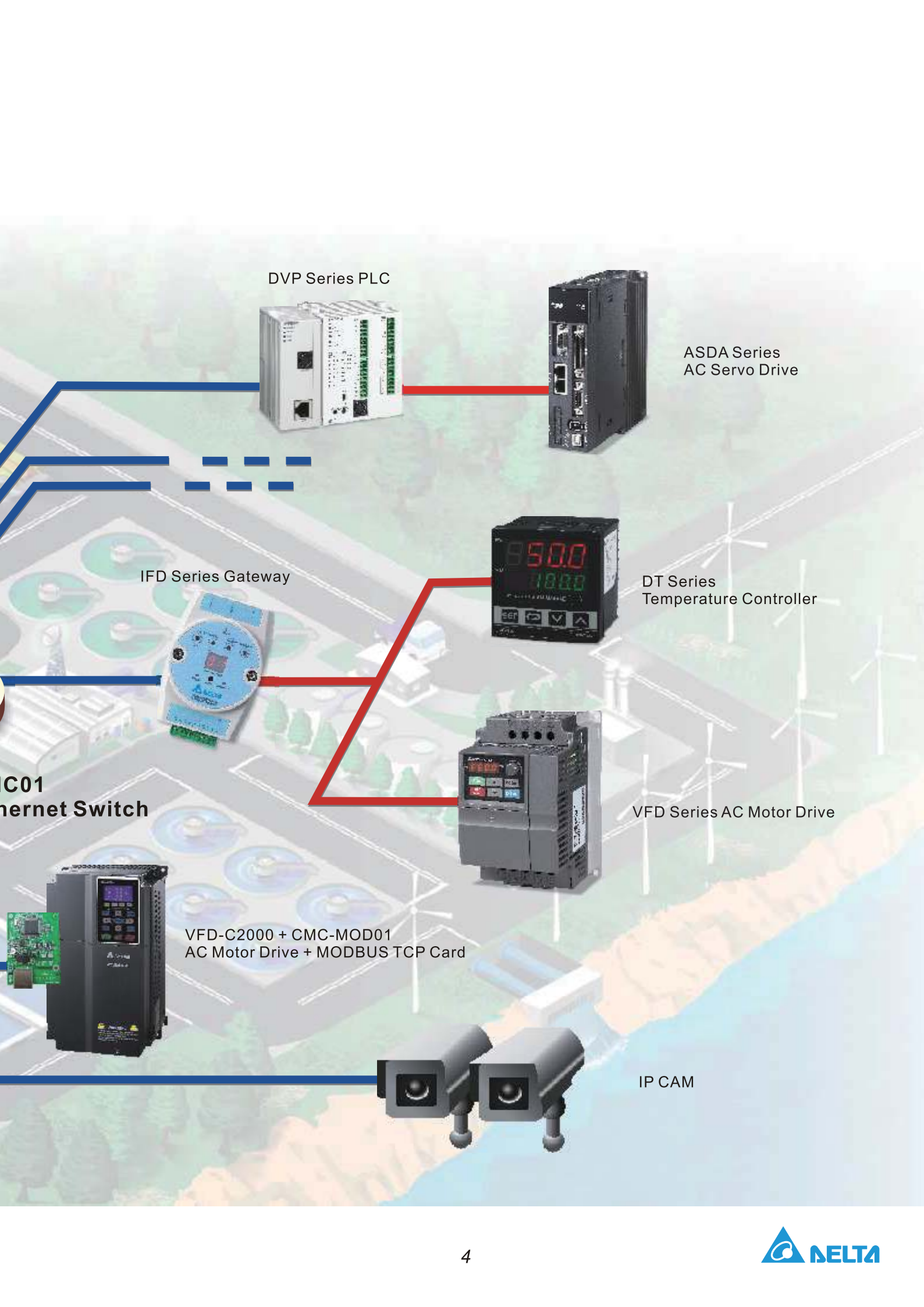


Features

- Complete Ethernet configurations of 5/8/16 ports with fiber optics
- IEC 61000-6-2 & 4 certified for heavy industry EMC standard
- High level EMS: level 3 design
- UL 508 industrial control equipment approval
- Supports IEEE 802.1p based QoS
- Transparent forwarding VLAN tagged packets
- Strong broadcast storm protection
- Supplies a wide range 12 to 48VDC redundant power inputs
- 1.5KV Hi-pot isolation protection
- Industrial hardened design of -40°C to 75°C (-40°F to 167°F) wide operating temperature
- Auto warning by relay output when port link-down and power failures occur
- Fanless, IP40 protection rugged aluminum case
- Flexible industrial DIN-Rail and wall mounting installation
- CE and FCC standards certified

Application





DVP Series PLC

ASDA Series
AC Servo Drive

IFD Series Gateway

DT Series
Temperature Controller

C01
Ethernet Switch

VFD Series AC Motor Drive

VFD-C2000 + CMC-MOD01
AC Motor Drive + MODBUS TCP Card

IP CAM

Specifications

TECHNOLOGY	
Standards	IEEE 802.3 10Base-T, IEEE 802.3u 100Base-T(X) and 100Base-FX, IEEE 802.3x, IEEE 802.1p
Processing Type	Store and Forward
	IEEE 802.3x flow control in full duplex , back- pressure flow control in half duplex
ETHERNET PERFORMANCE	
Switching Capacity	DVS-005 Series: 1Gbps; DVS-008 Series: 1.6Gbps; DVS-016 Series: 3.2Gbps, wire-speed, non-blocking switching fabric
Forwarding Rate	DVS-005 Series: 1.5Mpps; DVS-008 Series: 2.4Mpps; DVS-016 Series: 4.8Mpps
MAC Address Table	DVS-005 series: 1K MAC; DVS-008/016 series: 8K MAC
Packet Buffer Memory	DVS-005 series: 512K bits; DVS-008/016 series: 1M bits
Broadcast Storm Protection	Default Enabled(DVS-008/016 series)
Transparent Forwarding VLAN Tagged Packets	Default Enabled(DVS-008/016 series)
Class of Service	IEEE 802.1p based QoS(priority queuing--QoS/CoS)(DVS-008/016 series)
INTERFACE	
Ethernet Ports	RJ45 Ports: 10/100Base-T(X), auto MDI/MDI-X, auto negotiation
	Fiber Optic Ports: 100Base-FX(SC connector), MultiMode or SingleMode
LED Indicators	Per Unit: Power Status(PWR1,PWR2), ALARM
	Per Port: LINK/ACT, 100M(RJ45 port), 100M(fiber port)
DIP Switches	Port link-down alarm configuration
Alarm Contact	1 relay output with current carrying capacity 5A@24VDC
POWER REQUIREMENTS	
Input Voltage	24VDC(12 to 48VDC) redundant inputs by terminal block
Power Consumption	DVS-005: 3.4W Max. 0.14A@24VDC
	DVS-008: 4.4W Max. 0.18A@24VDC
	DVS-016: 7.2W Max. 0.3A@24VDC
Overload Current Protection	Present, Max. input current 3.5A
Reverse Polarity Protection	Present
PHYSICAL	
Housing	IP40 protection, aluminum metal case
Dimensions	DVS-005 series: 145.3mm(H) x 45mm(W) x 108.7mm(D) (5.7*1.8*4.3 in)
	DVS-008/0016 series: 145.3mm(H) x 75mm(W) x 108.7mm (D)(5.7*3*4.3 in)
Weight	DVS-005 series: 300g; DVS-008 series: 430g; DVS-016 series:490g
Installation	Industrial DIN-Rail and wall mounting
ENVIRONMENTAL LIMITS	
Operating Temperature	DVS-005I00: -10°C to 60°C(14°F to 140°F)
	DVS-005/008/016W series: -40°C to 75°C(-40°F to 167°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
IEC 61000-6-2 EMS	IEC 61000-4-2(ESD), level 3
	IEC 61000-4-3(RS), level 3
	IEC 61000-4-4(Burst), level 4
	IEC 61000-4-5(Surge), level 3
	IEC 61000-4-6(CS), level 3
	IEC 61000-4-8(PFMF), level 4
	IEC 61000-4-29(Voltage Dips & Interrupts)
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

Specifications

Fiber Optics

	100Base-FX	
	MultiMode	SingleMode
Wavelength	1310nm	1310nm
Max TX Power	-14dBm	-8dBm
Min TX Power	-20dBm(1) / -22.5dBm(2)	-15dBm
RX Sensitivity	-31dBm	-31dBm
Optic Budget	11dBm(1) / 8.5dBm(2)	16dBm

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

Model Name Explanation



Ethernet Ports		Operating Temperature		Alarm Contact		Fiber Type		Fiber Ports	
05	5 ports	I	-10°C to 60°C	00	None	MC	SC type, MultiMode,5km	01	1 port
08	8 ports	W	-40°C to 75°C	01	Available	SC	SC type, SingleMode,30km	02	2 ports
16	16 ports								

Ordering Information

Product		Port Combination		
Model Name	Operating Temperature	10/100Base-T(X)	100Base-FX	
			SC Type, MultiMode	SC Type, SingleMode
DVS-005I00	-10°C to 60°C	5	---	---
DVS-005W01	-40°C to 75°C	5	---	---
DVS-005W01-MC01	-40°C to 75°C	4	1	---
DVS-005W01-SC01	-40°C to 75°C	4	---	1
DVS-008W01	-40°C to 75°C	8	---	---
DVS-008W01-MC01	-40°C to 75°C	7	1	---
DVS-008W01-MC02	-40°C to 75°C	6	2	---
DVS-008W01-SC01	-40°C to 75°C	7	---	1
DVS-008W01-SC02	-40°C to 75°C	6	---	2
DVS-016W01	-40°C to 75°C	16	---	---
DVS-016W01-MC01	-40°C to 75°C	15	1	---
DVS-016W01-SC01	-40°C to 75°C	15	---	1



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*We reserve the right to change the information in this catalogue without prior notice.