

## VDE300-2042

# 6-port unmanaged Ethernet switch with $4\times10/100$ Base-T(X) and $2\times100$ M optical ports, SFP socket

#### **Features**

- Fiber optical options for extending distance and electrical noise immunity
- ♣ Redundant dual 12/24/48 VDC power inputs
- Relay output warning for power failure and ports break alarm
- Broadcast storm protection
- -40 to 75<sup>°</sup>C operating temperature range
- ♣ Support 4×10/100Base-T(X) ports
- ♣ Support 2× 100Base-FX optical port
- Support DIN-Rail mounting
- ♣ Support IP 30 protection
- Support Dual DC inputs. 12~48V DC or AC on 8-pin screw type terminal



#### Introduction

VDE300-2042 is unmanaged Ethernet switch with  $4\times10/100$ Base-T(X) ports and  $2\times100$ BaseT-FX optical port. The Ethernet switch is designed for industrial applications, such as rolling stock, vehicle, and railway applications. Our device undergo a 100% burn-in test to ensure that they fulfill the special needs of industrial automation control applications. The VD300-2042 switches can be easily installed on a DIN-Rail.

## **Ordering Information**

VDE300-ABBCD-					
Code	A: Series	BB: 10/100Base-T(X) or	C: 100Base-Fx or	D: Additional Port Type	
Definition		1000Base-T(X) Port Number	1000Base-Fx Port Number		
Option	2 - Non-managed	04 – 4 ports	2 – 2 ports	G: Gigabit for fiber port	
	3 – Managed, 100M for RJ-45			GC: Gigabit combo port	
	Port , 100M or 1000M for fiber				
	port				

### **Optional Accessories**

SFP100 series: 100Mbps SFP optical transceiver PS-36 series: 36 Watts DIN-Rail power supply

PS-70 series: 70 Watts DIN-Rail power supply

PS-120 series: 120 Watts DIN-Rail power supply

# **Specifications**

10/100 Base—T(X) Ports in R145 Auto         4           MDD/MDIX         EEEE 802.3 for 100Base—T           Ethernet Standards         EEEE 802.3 for 100Base—TX and 100Base—FX           ETEE 802.3 for 1000Base—X         EEEE 802.3 for 1000Base—TX           Processing         Store-and-Forward           Switch Properties         Switching latency: 7 us           Fault contact relay         Relay output to carry capacity of 1A at 24VDC           Power         Redundant Input Power           Power Consumption (Typ.)         <5 Watts           Overload Current Protection         Present           Reverse polarity protection         Present           Briscal Characteristic         Present           Enclosure         IP-30           Dimension (W x D x H)         160mm x110mm x37mm           Weight (Kg)         12           Environmental         12           Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Temperature         -40 to 75°C (-40 to 167°F)           Operating Humidity         \$ to 95% Non-condensing           Regulatory approvals         EMI           EMI         FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)           Shock         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000			
Ethernet Standards         IEEE 802.3 for 100Base-TX and 100Base-FX IEEE 802.3 for 1000Base-X IEEE 802.3 for 1000Base-X           Processing         Store-and-Forward           Switch Properties         Switching latency: 7 us           Fault contact relay         Relay output to carry capacity of 1A at 24VDC           Power         Feedundant Input Power           Power Consumption (Typ.)         <5 Watts		4	
Ethernet Standards         IEEE 802.3 iz for 100Base-TX and 10Base-EX           Processing         Store-and-Forward           Switch Properties         Switching latency: 7 us           Fault contact relay         Relay output to carry capacity of 1A at 24VDC           Power         Power           Redudant Input Power         Joul DC Inputs. 12~48V DC OR AC on 8-pin screw type terminal           Power Consumption (Typ.)         45 Watts           Overload Current Protection         Present           Reverse polarity protection         Present           Physical Characteristic         19-30           Dimension (W x D x H)         160mm x110mm x37mm           Weight (Kg)         12           Brownomental         40 to 85°C (-40 to 185°F)           Operating Temperature         -40 to 75°C (-40 to 167°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory approvals         Fix (SDP), ENS (1000-4-3 (RS), ENS (1000-4-4 (EFT), ENS (1000-4-5 (Surge), ENS (1000-4-4 (EFT), ENS (1000-4-4 (EFT), ENS (1000-4-4 (E	100Base-FX SFP	2	
Switch PropertiesSwitching latency: 7 usFault contact relayRelay output to carry capacity of 1A at 24VDCPowerFault contact relayRedundant Input PowerDual DC inputs. 12~48V DC OR AC on 8-pin screw type terminalPower Consumption (Typ.)<5 Watts	Ethernet Standards	IEEE 802.3u for 100Base-TX and 100Base-FX	
Fault contact relay Relay output to carry capacity of 1A at 24VDC  Power  Redundant Input Power Dual DC inputs. 12~48V DC OR AC on 8-pin screw type terminal  Power Consumption (Typ.) < 5Watts  Overload Current Protection Present  Reverse polarity protection Present  Reverse polarity protection Present  Finclosure Industry Ind	Processing	Store-and-Forward	
PowerRedundant Input PowerDual DC inputs. 12~48V DC OR AC on 8-pin screw type terminalPower Consumption (Typ.)<5 Watts	Switch Properties	Switching latency: 7 us	
Redundant Input Power Dual DC inputs. 12~48V DC OR AC on 8-pin screw type terminal  Power Consumption (Typ.) <5 Watts  Overload Current Protection Present  Reverse polarity protection Present  Reverse polarity protection Present  Floosure IP-30  Dimension (W x D x H) 160mm x110mm x37mm  Weight (Kg) 1.2  Environmental  Storage Temperature -40 to 85°C (-40 to 185°F)  Operating Temperature -40 to 75°C (-40 to 167°F)  Operating Humidity 5% to 95% Non-condensing  Regulatory approvals  EMI FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)  EMS Shock 1EC60068-2-7  Free Fall 1EC60068-2-32  Vibration 1EC60068-2-6  Safety 1EC60068-2	Fault contact relay	Relay output to carry capacity of 1A at 24VDC	
Power Consumption (Typ.)<5 WattsOverload Current ProtectionPresentReverse polarity protectionPresentPhysical CharacteristicIP-30EnclosureIP-30Dimension (W x D x H)160mm x110mm x37mmWeight (Kg)1.2Environmental-40 to 85°C (-40 to 185°F)Operating Temperature-40 to 75°C (-40 to 167°F)Operating Humidity5% to 95% Non-condensingRegulatory approvalsFCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)EMSEN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-8, ENS1000-4-11ShockIEC60068-2-27Free FallIEC60068-2-32VibrationIEC60068-2-6SafetyEN60500-1	Power		
Overload Current Protection         Present           Reverse polarity protection         Present           Physical Characteristic         P-30           Enclosure         160mm x110mm x37mm           Weight (Kg)         1.2           Environmental         Valous 85°C (-40 to 185°F)           Operating Temperature         -40 to 75°C (-40 to 167°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory approvals         FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-8, EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           Safety         EN60950-1	Redundant Input Power	Dual DC inputs. 12~48V DC OR AC on 8-pin screw type terminal	
Reverse polarity protection         Present           Physical Characteristic         IP-30           Dimension (W x D x H)         160mm x110mm x37mm           Weight (Kg)         1.2           Environmental         Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Temperature         -40 to 75°C (-40 to 167°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory approvals         EMI         FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-8, EN61000-4-11         Shock           Fee Fall         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           Safety         EN60950-1	Power Consumption (Typ.)	<5 Watts	
Physical Characteristic  Enclosure IP-30 Dimension (W x D x H) 160mm x110mm x37mm  Weight (Kg) 1.2  Environmental  Storage Temperature -40 to 85°C (-40 to 185°F) Operating Temperature -40 to 75°C (-40 to 167°F) Operating Humidity 5% to 95% Non-condensing  Regulatory approvals  EMI FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011) EMS SNOGA EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-8, EN61000-4-11 Shock 1EC60068-2-27 Free Fall 1EC60068-2-32 Vibration 1EC60068-2-6 Safety EN61000-4-1 EN6050-1	Overload Current Protection	Present	
Enclosure         IP-30           Dimension (W x D x H)         160mm x110mm x37mm           Weight (Kg)         1.2           Environmental         -40 to 85°C (-40 to 185°F)           Operating Temperature         -40 to 75°C (-40 to 167°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory approvals         EMI           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61012-3-2, EN50121-4, EN55011)           EMS         EN61000-4-6 (CS), EN61000-4-11           Shock         1EC60068-2-27           Free Fall         1EC60068-2-32           Vibration         1EC60068-2-6           Safety         EN60950-1	Reverse polarity protection	Present	
Dimension (W x D x H)         160mm x110mm x37mm           Weight (Kg)         1.2           Environmental         -40 to 85°C (-40 to 185°F)           Operating Temperature         -40 to 75°C (-40 to 167°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory approvals         FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           Safety         EN6950-1	Physical Characteristic		
Weight (Kg)         1.2           Environmental           Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Temperature         -40 to 75°C (-40 to 167°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory approvals         FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           Safety         EN60950-1	Enclosure	IP-30	
Environmental           Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Temperature         -40 to 75°C (-40 to 167°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory approvals         EMI           EMI         FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           Safety         EN60950-1	Dimension (W x D x H)	160mm x110mm x37mm	
Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Temperature         -40 to 75°C (-40 to 167°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory approvals         FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           Safety         EN60950-1	Weight (Kg)	1.2	
Operating Temperature       -40 to 75°C (-40 to 167°F)         Operating Humidity       5% to 95% Non-condensing         Regulatory approvals         EMI       FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)         EMS       EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-8, EN61000-4-11         Shock       IEC60068-2-27         Free Fall       IEC60068-2-32         Vibration       IEC60068-2-6         Safety       EN60950-1	Environmental		
Operating Humidity         5% to 95% Non-condensing           Regulatory approvals         EMI         FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-8, EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           Safety         EN60950-1	Storage Temperature	-40 to 85°C (-40 to 185°F)	
Regulatory approvals         EMI       FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)         EMS       EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-8, EN61000-4-11         Shock       IEC60068-2-27         Free Fall       IEC60068-2-32         Vibration       IEC60068-2-6         Safety       EN60950-1	Operating Temperature	-40 to 75°C (-40 to 167°F)	
EMI       FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)         EMS       EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11         Shock       IEC60068-2-27         Free Fall       IEC60068-2-32         Vibration       IEC60068-2-6         Safety       EN60950-1	Operating Humidity	5% to 95% Non-condensing	
EMS       EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11         Shock       IEC60068-2-27         Free Fall       IEC60068-2-32         Vibration       IEC60068-2-6         Safety       EN60950-1	Regulatory approvals		
EMS       EN61000-4-6 (CS), EN61000-4-11         Shock       IEC60068-2-27         Free Fall       IEC60068-2-32         Vibration       IEC60068-2-6         Safety       EN60950-1	EMI	FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN50121-4, EN55011)	
Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           Safety         EN60950-1	EMS	EN61000-4-6 (CS),	
Vibration IEC60068-2-6 Safety EN60950-1	Shock		
Safety EN60950-1	Free Fall	IEC60068-2-32	
	Vibration	IEC60068-2-6	
Warranty 3 years	•		
	Warranty	3 years	

# **Packing List**

VDE300-2042 x 1 User manual x 1 Quick Installation Guide x 1





