TDS-5041-I-M12

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EN50155 Industrial 4-port secure serial to Ethernet device server with 4xRS-422/485(2KV isolation) and 1x10/100Base-T(X), M12 connector

Features

- Operating Modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP
- Redundant multiple host devices:
- host devices: Virtual COM, TCP Server, TCP Client mode;
  4 IP ranges: UDP
- NAT-pass through: user can manage TDS-5041-I-M12 through NAT router
- Security: SSL data encryption; secured management by HTTPS and SSH: IP Access: IP White List
- Internet Communication: PPPoE
- Update DNS Hostname: DDNS
- Event Warning by Syslog, Email, SNMP trap, Relay and Beeper
- Configurable by Web-based and Windows utility (DS-Tool)
- Various Windows O.S. supported:
  Windows NT/2000/ XP/ 2003/VISTA(32/64bit)/ Windows 7(32/64bit) / Windows 8 (32/64bit)

SSL EN50155 -10~60°C Temperature

RoHS Lead Free CE FC

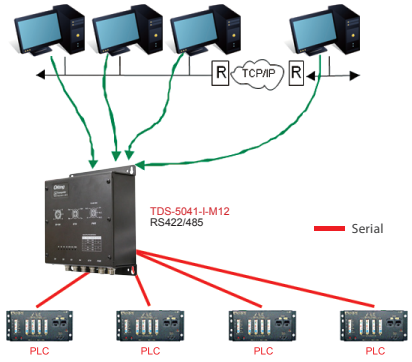
Introduction

TDS-5041-I-M12 is an innovative secure 4-port RS-422/485 to 1 port LAN secure device server, with TCP/IP and versatile operation modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, and UDP. In addition, the Windows untility, DS-Tool, could configure multiple devices and set up the mappings of Virtual Com easily. The features of NAT Router Pass Through, DDNS, and PPPoE make it more convenient for administrators to configure ORing's device servers through NAT router from different IP domains or Internet via modem remotely. On the other hand, TDS-5041-I-M12 can simultaneously transfer data up to 5 redundant host PCs to aovid Ethernet connection breakdown or any host PC fails. Further, TDS-5041-I-M12 features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

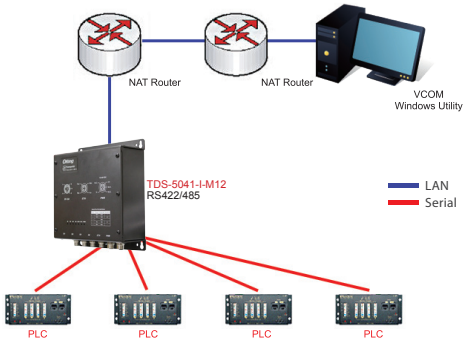
TDS-5041-I-M12 supports 4xRS-422/485 interfaces on 5-pin M12 A-coding connectors and provides one wide range power input, 12~48 VDC, on a 5-pin M12 connector. With wide operating temperature, -40~70oC, TDS-5041-I-M12 could operate in the harsh industrial environment. Therefore, TDS-5041-I-M12 is the best solution to the high demand of secure serial to Ethernet critical data communication for rolling stock application.

Practical Operation

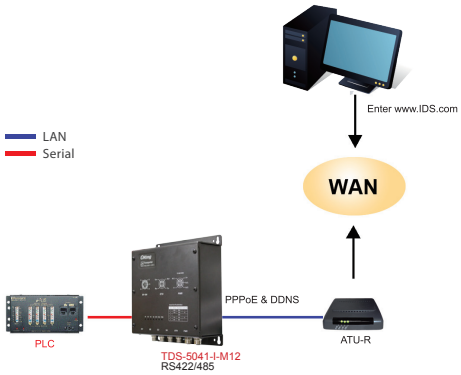
In practical operation of serial device servers, Windows utility (DS-Tool) is supported. This utility is very helpful for you to manage and monitor all of industrial device servers on the industrial network



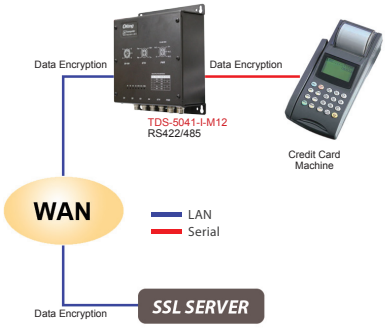
Multiple Host PCs



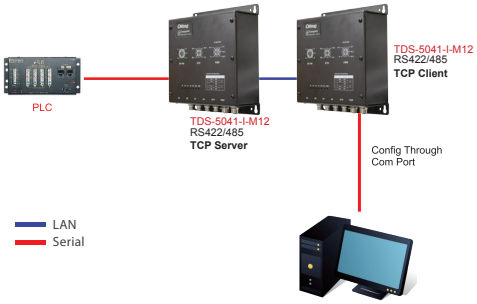
NAT Router Pass-Through



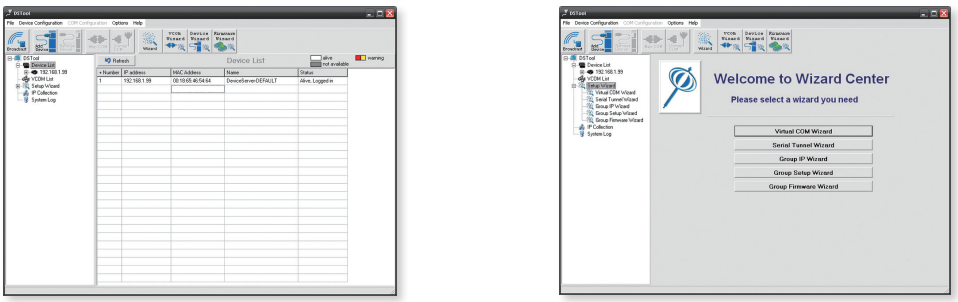
PPPoE and DDNS



SSL Data Encryption

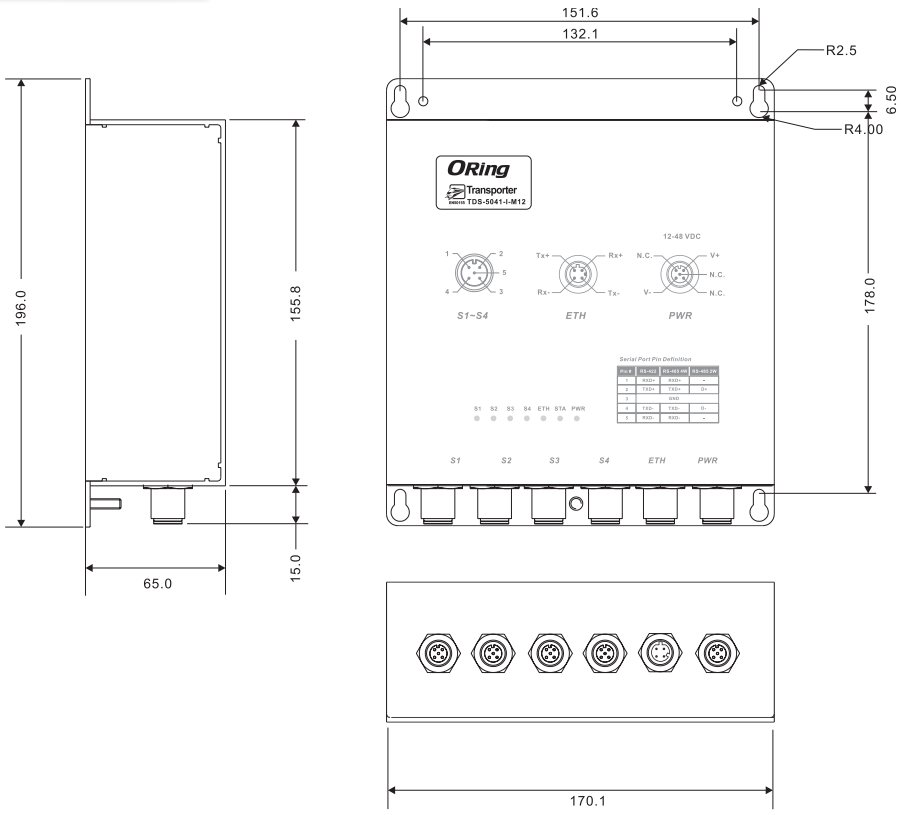


TCP Client/Server Modes



DS-Tool (Windows Utility) : Monitoring and Configuration interface

Dimensions



Unit=mm

Specifications

ORing Device Server Model	TDS-5041-I-M12
Physical Ports	
10/100 Base-T(X) Ports in M12 Auto MDI/MDIX	1 (4-pin D-Coding in female connector)
Serial Ports	
Connector	M12 x 4 (5-pin A-coding in male connector)
Operation Mode	RS-422 / 4(2)-Wire RS-485. Which can be configured by DS-Tool
Serial Baud Rate	110 bps to 460.8 Kbps
Data Bits	5, 6, 7, 8
Parity	odd, even, none, mark, space
Stop Bits	1, 1.5, 2
RS-232	TxD, RxD, GND
RS-485 (2-wire)	Data+, Data-,GND
Flow Control	XON/XOFF
Isolation	2KVDC
Network Features	
Protocol	ICMP, IP, TCP, UDP, DHCP, BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS, SMTP, DDNS, PPPoE
LED Indicators	

Power Indicator	PWR 1(2)(PoE)/ Ready : Red Blinking: Indicates an IP conflict, or DHCP or BOOTP server did not respond properly. Green On: Power is on and functioning Normally. Green Blinking: Located by Administrator.
10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Act at 100Mbps. Amber for port Link/Act at 10Mbps.
Serial TX / RX LEDs	Red: Serial port is receiving data Green: Serial port is transmitting data
Fault Contact	
Relay	Relay output to carry capacity of 1A at 24VDC
Power	
Input Power	Power Inputs. 12-48VDC x 1(5-pin M12 female in A-coding)
Power Consumption (Typ.)	5.5 watts
Overload Current Protection	Present
Physical Characteristics	
Enclosure	IP-40
Dimensions (W x D x H)	170(W) x 65 (D) x 195(H) mm (6.69 x2.55x7.7.67 inch.)
Weight (g)	950 g
Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-40 to 70°C (14 to 158°F)
Operating Humidity	5% to 95% Non-condensing
Regulatory Approvals	
EMI	FCC Part 15, CISPR (EN55022) class A
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, EN61373
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6, EN61373
Warranty	5 years

Ordering Information

TDS-50 A B -I-M12

Code Definition	Serial Port Number	Ethernet Port Number
Option	**- 4:** 4 ports	**- 1:** 1 ports

Available Model	Model Name	Description
	TDS-5041-I-M12	EN50155 Industrial 4-port secure serial to Ethernet device server with 4xRS-422/485(2KV isolation) and 1x10/100Base-T(X), M12 connector

Packing List

- TDS-5041-I-M12
- DIN-Rail Kit
- Wall-mount Kit
- ORing Tool CD
- Quick Installation Guide

Optional Accessories

- DR-45 series, 45W DIN-Rail power supply
- DR-75 series, 75W DIN-Rail power supply
- DR-120 series, 120W DIN-Rail power supply