IDS-M311

Industrial 1-port Modbus Gateway with 1xRS-232/422/485 and 1x10/100 Base-T(X)

Features

- ➤ Operating Modes: RTU Master, RTU Slave, ASCII Master, ASCII Slave
- ➤ Supports up to 16 TCP connections and 32 requests simultaneously
- ➤ Convert between Modbus TCP and Modbus RTU/ASCII
- ➤ Provides 1xRS-232/422/485 software selectable serial communication
- ➤ Internet Communication：PPPoE
- ➤ Update DNS Hostname：DDNS
- ➤ Event Warning by Syslog, Email, SNMP trap, and Beeper
- ➤ Dual DC power inputs
- ➤ Configurable by Web Interface
- ➤ Various Windows O.S. supported: Windows NT/2000/ XP/ 2003/VISTA（32/64bit）/ Windows 7（32/64bit）
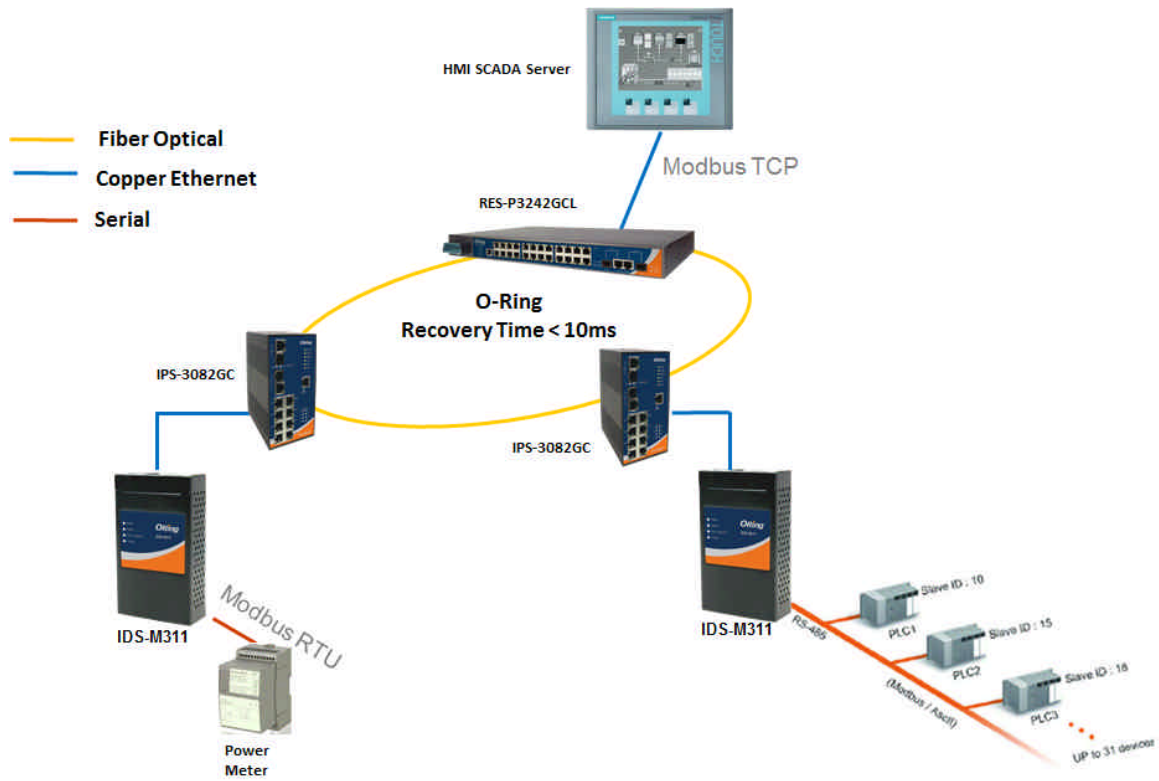- ➤ DIN-rail and Wall mount enabled

Introduction

　　IDS-M311 is an innovative 1-port Modbus Gateway which converts between Modbus TCP and Modbus RTU/ASCII. IDS-M311 is mainly designed for easy integration of Modbus RTU/ASCII devices and network based Modbus TCP devices without changing currently existed structure. While IDS-M311 is able to support up to 31 RTU/ASCII devices in its serial port, thus this model can effectively connect a high density of Modbus nodes to the same network. In addition, the Web Configuration Interface, could configure multiple devices and set up IDS-M311 operation mode for different application requirement. IDS-M311 allows user to select from master or slave mode for user to access Ethernet slave devices or Serial slave devices.
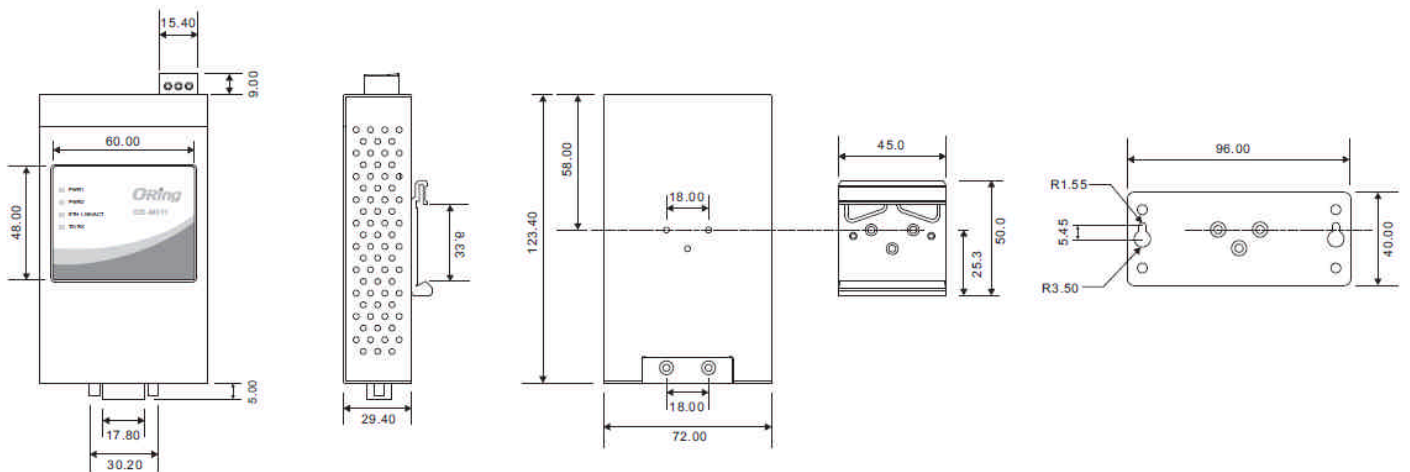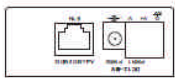
　　IDS-M311 supports RS-232/422/485 and provides dual redundant power inputs, 12~48 VDC, on DC power jack and terminal block to guarantee a non-stop operation.　With wide operating temperature, -10~60ºC, and rugged IP-30 housing design, IDS-M311 could operate in the harsh industrial environment. Therefore, IDS-M311 is the best solution to the high demand of secure serial to Ethernet critical data communication.

Practical Operation

Fiber Optical
Copper Ethernet
Serial

HMI SCADA Server

Modbus TCP

RES-P3242GCL

O-Ring
Recovery Time < 10ms

IPS-3082GC

IPS-3082GC

IDS-M311

IDS-M311

Modbus RTU

Power
Meter

RS-485

(Modbus / Ascll)

Slave ID : 10
PLC1
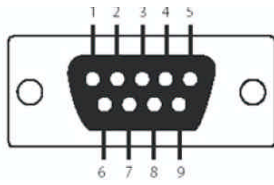
Slave ID : 15
PLC2

Slave ID : 18
PLC3

UP to 31 devices

Dimension

Dimension (Unit =mm)

Pin Definitions

DB9 connector

Pin #	RS 232	RS 422	RS 485 (4 wire)	RS 485 (2 wire)
1	DCD	RXD -	RXD -	
2	RXD	RXD +	RXD +	
3	TXD	TXD +	TXD +	DATA +
4	DTR	TXD -	TXD -	DATA -
5	GND	GND	GND	GND
6	DSR			
7	RTS			
8	CTS			
9	RI			
RS 232 mod act as DTE				

Specifications

ORing Device Server Model	IDS-M311
Physical Ports	
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX	1
Serial Ports	
Connector	DB9(male) x 1
Operation Mode	RS232 / RS422 / 4(2)-Wire RS485. Which can be configured by Web interface
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, RTS, CTS, DTR, DSR, DCD, RI, GND
RS-422	Tx+,Tx-, Rx+, Rx-,GND
RS-485 (4-wire)	Tx+,Tx-, Rx+, Rx-,GND
RS-485 (2-wire)	Data+, Data-,GND
Flow Control	XON/XOFF, RTS/CTS, DTR/DSR
Network Protocol	
Protocol	ICMP, IP, TCP, UDP, DHCP, BOOTP, DNS, SNMP V1/V2c, HTTPS, SMTP, DDNS, PPPoE, Modbus TCP
LED indicators	

Power indicator	PWR 1(2) / Ready:
	    Red On: Power is on and booting up.
	    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.

10/100TX 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
Power	
Redundant Input power	Dual DC inputs. 12-48VDC on 3-pin terminal block and power jack
Power consumption (Typ.)	4 Watts
Overload current protection	Present
Reverse polarity protection	Present on terminal block
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	72(W)x29.4(D)x123.4(H) mm (2.83x1.16x4.86 inch.)
Weight (g)	294
Environmental	
Storage Temperature	-40 to 85ºC (-40 to 185ºF)
Operating Temperature	-10 to 60ºC (14 to 140ºF)
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
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950-1
Warranty	5 years

* All specifications are subject to change without notice.

Ordering Information

IDS-M3AB

Code Definition	Serial Port Type	Serial Port Number	Ethernet Port Number
Option	- 1: RS-232 - 2: RS-422/485 - 3: RS-232/422/485	- 1: 1 port	- 1: 1 port

Available Model	Model Name	Description
	IDS-M311	Industrial 1-port Modbus Gateway with 1xRS-232/422/485 and 1x10/100 Base-T(X)

Packing List

- IDS-M311 x 1
- Wall-Mount Kit x 1
- CD x 1
- Din-Rail Kit x 1
- Quick Installation Guide x 1

Optional Accessories

- DR-45 series : 45 Watts power supply
- DR-120 series : 120 Watts power supply
- PAE-121000, 12VDC/1000mA 12W Power Adapter, EU plug
- DR-75 series : 75 Watts power supply
- PAA-121000, 12VDC/1000mA 12W Power Adapter, US plug