

● **WS-160: 5 Port RS232 to Ethernet or Modbus Gateway**



Order Information:
 Model No.: WS-160

● **FEATURES**

➤ **Protocol Support**

ARP, ICMP, TCP, UDP, IP, DHCP Client,
 HTTP,SNMP(Optional),SNTP(Optional), Modbus TCP, Modbus RTU

➤ **Support Interface**

RJ-45 Port x1, 10Mbps, 2KV
 RS-232, up to 921.6Kbps

➤ **Setting**

Use HTTP, Browser for Setting

➤ **Security**

Setup Login in Password Protect
 Access Password Protect
 Firmware Upgradeable
 Support New Version Firmware Upgradeable

➤ **Low Power Consumption**

Less than 2W Power Consumption

➤ **Multi Sockets**

Support Multit Sockets and HTTP
 All protocol working Independent and concurrently

➤ **High Reliability**

RTOS inside, Build in Watchdog, Power Good, Software Watchdog
 Working 24Hours per day

➤ **Low Cost**

● **APPLICATIONS**

- Data collection & security terminals:
- Access Control Terminals
- Security Devices
- Time Recorders
- Warehouse Terminals
- Shop floor automation Terminals
- Remote Sensors & Meters:
- Power monitors
- Power meters
- Environmental monitors
- Temperature monitors
- Data loggers
- Auto-ID Scanners:
- Barcode Scanners
- Magnetic Card Readers

● **GENERAL DESCRIPTIONS**

WS-160 is the Web Server using the ARM Cortex M3's family microprocessor as the Ethernet controller to be a RS232 to Ethernet controller with limit devices. It can provide you lower cost, but limited functions TCP/IP stack. WS-160 is using the state machine to handle TCP/IP stack because of the limit resources.

WS-160 is a small size and low cost module is easy to implement an application in IA, Automatic, Security and any low data rate data transmit ion as a coprocessor. WS-160 supports the ARP, ICMP, TCP, UDP, IP, DHCP-Client and HTTP protocols, also support SNMP(Optional) , SNTP(Optional).

You can use the browser to setting parameters of the WS-160, or you can use the commands to setting parameters of the WS-160 series Web Server. It is easy to management in Individual or via Application software.

● **SPECIFICATION**

• **Ethernet Interface**

Protocol	Modbus TCP
Number of Ports	1
Speed	10/100 Mbps, Auto MDI/MDIX
Connector	8-pin RJ45
Transformer Isolation Protection	1500Vrms

• **Serial Interface**

Protocol	Modbus RTU/ASCII Slave/Master
Number of Ports	5
Serial Standards	RS232
Connectors	DB9 male, Terminal Block
ESD Protection	15 kV for all signals
RS-485 Data Direction Control	-

• **Serial Communication Parameters**

Data Bits	7, 8
Stop Bits	1, 2
Parity	None, Even, Odd, Space, Mark
Flow Control	-
Baud rate	300 bps to 921.6 kbps, option to 50 bps ~ 921.6 kbps

• **Serial Signals**

RS-232	TxD, RxD, GND
RS-422	-
RS-485-2w	--

• **Software**

Configuration Options	HTTP Web Console, Windows Setup Utility
-----------------------	---

Utilities	Setup Utility for Windows
-----------	---------------------------

• Physical Characteristics

Housing	PC ,
---------	------

Weight	300 g
--------	-------

Dimensions	Without ears:
	33 x 80 x 102 mm
	With ears:
	33 x 94 x 102 mm

• Environmental Limits

Operating Temperature	0 to 60°C (32 to 140°F)
-----------------------	-------------------------

Storage Temperature	-40 to 85 °C (-40 to 185°F)
---------------------	-----------------------------

Ambient Relative Humidity	5 to 95% (non-condensing)
---------------------------	---------------------------

Altitude	Up to 2000 m (795 hPa), higher altitudes on demand
----------	--

Note	
------	--

• Power Requirements

Input Voltage	12 to 30 VDC, No Polarity
---------------	---------------------------

Power Connector	Terminal block
-----------------	----------------

Power Consumption	110 mA @ DC24V
-------------------	----------------

Isolation	2KV
-----------	-----

• Standards and Certifications

EMC	CE
-----	----

• Reliability

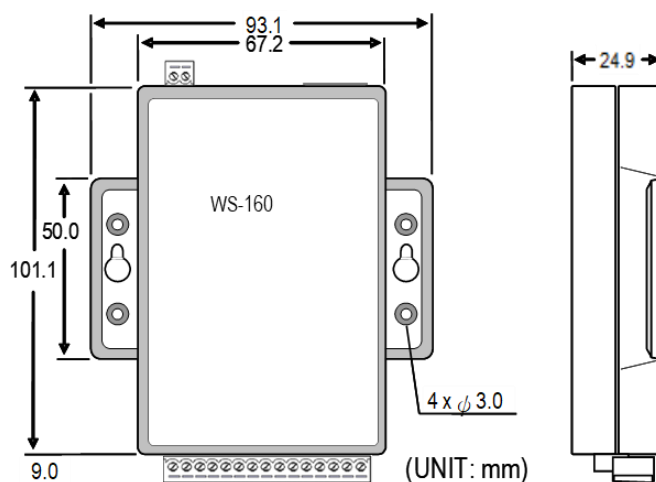
MTBF (mean time between failures)	
-----------------------------------	--

• Warranty

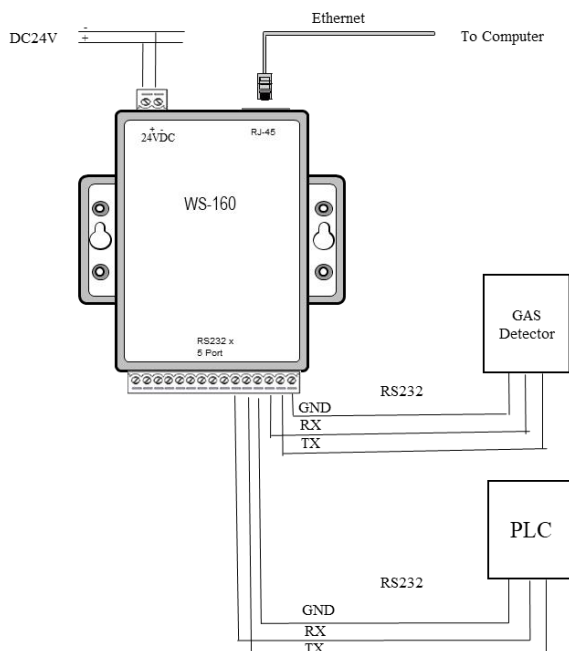
Warranty Period	1 year
-----------------	--------

Details	See http://www.infosystem.com.tw
---------	---

● **Dimension**



● **Connection**



● **Configuration**

Web Browser or Setup tool

● **Installation**

Wall Mount

Din Rail (Optional Din Rail Kit)