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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









MB5901 Series

1-Port Industrial Secure Modbus TCP/RTU/ASCII Gateway



FEATURE HIGHLIGHTS

- Industrial EMC protection, wide temperature operation, -40°C~85°C
- 2-port 10/100Mbps Fast Ethernet. 1-port USB 2.0 high speed OTG
- Bi-Directional Modbus TCP/RTU/ASCII conversion from Serial to Etherne and Vice-versa
- Advanced features include embedded IPsec VPN security, Virtual ID remapping, VirtualCOM mode, exception handling and many others
- Rugged metal case with wall or DIN-Rail mount
- Configuration via Web Browser / Serial-Telnet Console / Windows Utility
- Remote firmware upgrade
- Optional 802.3af PoE models can be powered through the Ethernet cable

PRODUCT DESCRIPTION

Diverse Hardware Infrastructure

Modbus Gateway supports the four most commonly used communication standards, RS-232/485/422, and Ethernet. The ease-of-use configuration utility provided with Modbus Gateway can quickly select the hardware interface, and easily switch to the existing communication infrastructure. Industrial EMC protection and wide temperature operation capability make MB5901 ready for every mission. And if cabling is an issue, the PoE-powered version can allow MB5901 to be powered through PoE.

Embedded Security

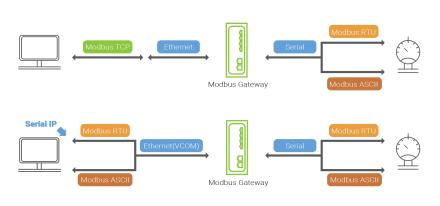
Relax. MB5901 Modbus Gateway supports IPsec VPN encryption, allowing you to safely use the device over the internet without worrying about malicious attacks, data sniffing or unintentional remote control of your Modbus slaves. The embedded VPN deamon supports peer-to-peer and peer-to-side connections.

Switching between Modbus Protocols

Modbus Gateway supports the standard Modbus protocol and is capable of converting any Modbus protocols between Modbus TCP, Modbus RTU, and Modbus ASCII for all supported hardware interfaces.

Modbus ID Routing

Modbus Gateway supports various types of hardware communication interfaces, Modbus protocol conversion, and Modbus ID routing. Therefore the Modbus Gateway can integrate your existing and complex Modbus hardware configuration into a simple network that can be easily managed.











SPECIFICATIONS

Technical Specifications		
Model Name	MB5901	
Network interface		
Standards supported	IEEE 802.3 10BaseT IEEE 802.3u 100BaseT(X) IEEE 802.3 af (PoE, on -PoE version only)	
Connector ports	RJ45 x 2	
Serial Interface		
Connector	D-Sub9 RS-232/422/485 software selectable (DB models) 5.08mm 5-Pin Terminal block RS-232/422/485 sw selectable (TB models)	
Ports	1	
Baud Rate	1,200 ~ 921,600 bps software selectable	
Data Bits	5, 6, 7, 8 software selectable	
Stop Bits	1, 2 software selectable	
Flow Control	None, Xon/Xoff, RTS/CTS	
Mod		
Speed Connector	USB 2.0 USB A Type	
Power		
Input Voltage Input Current (@ 9VDC) Power Consumption	9 - 48VDC (non-PoE Models); or through Ethernet Cable (PoE versions) 0.65 A Approximately 6 W (Max)	
Connector	3-Pin 5.08mm Lockable Terminal Block	
Reverse Polarity Protection	Yes	
Physical Characteristics		
Housing Dimension (W x H x D) Weight Installation Reset Button	IP30 SPCC housing 32 x 110 x 90 mm (1.26 x 4.33 x 3.54 in) 400 g DIN-Rail, Wall mount (optional kit) Yes	
Environmental Limits		
Operating Temperature Storage Temperature Ambient Relative Humidity	-40°C~85°C (-40°F~185°F) -40°C~85°C (-40°F~185°F) 5%~95%, 55°C (Non-condensing)	
Sofware		
Protocols	IPv4, ICMP, TCP, UDP, DHCP Client, SNMPv1,v2c,v3, HTTP, HTTPS, Telnet, RFC2217, Security through IPsec peer-to-peer or peer-to-side VPN with up to 37.9Mbps VPN throughput	
Configuration	Atop Management Utility, Web UI, Telnet	
VirtualCOM	Windows/Linux redirection software	



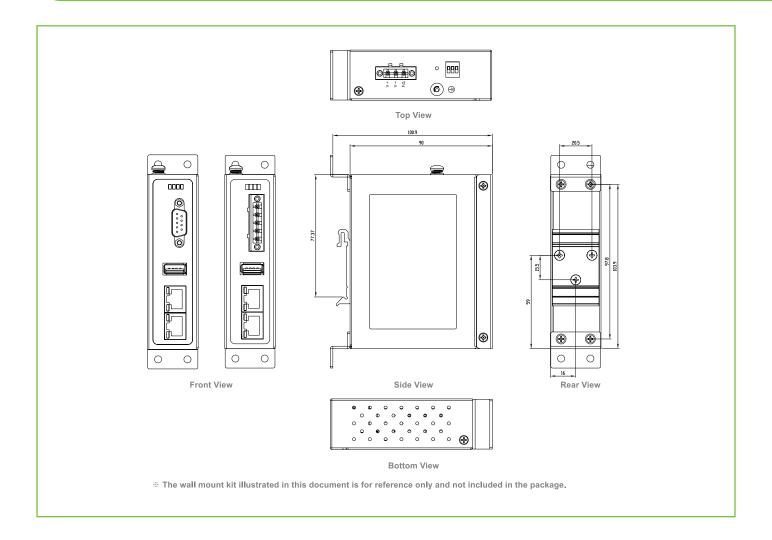






Modbus Features		
Supported Modes	Ethernet: Modbus TCP Server/Client(or VCOM); Serial: Modbus RTU/ASCII (master/slave)	
Maximum number of clients/slaves	Modbus TCP: Maximum 16 clients; Maximum 32 slave connections	

DIMENSIONS & LAYOUT



REGULATORY APPROVALS

Regulatory Approvals	
Safety	EN60950-1:2006
EMC	FCC Part 15, Subpart B, Class A EN 55032, EN 55024, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-4,











Test	Item		Value	Level
IEC 61000-4-2	ESD	Contact Discharge Air Discharge	±8kV ±15kV	4 4
IEC 61000-4-3	RS	Radiated (enclosure)	10 V/m	3
IEC 61000-4-4	EFT	DC Power Port Signal Port	±2.0KV ±2.0KV	3
IEC 61000-4-5	Surge	DC Power Port DC Power Port Signal Port	Line-to Line±1.0KV Line-to Earth±2.0KV Line-to Earth±2.0KV	3 3 3
IEC 61000-4-6	CS	Conducted (enclosure)	10 V rms	3
IEC 61000-4-8	PFMF	Enclosure	10 A/m	3
IEC 61000-4-11	DIP	Power Port	-	А
Shock Drop (Freefall) Vibration	IEC 60068-2-27 IEC 60068-2-32 IEC 60068-2-6			
RoHS II	Yes			
MTBF	TBD			
Warranty	5 years			

ORDERING INFORMATION

Ordering information				
Model name	Part Number	Description	Ethernet	Serial
MB5901-DB	1P1MB5901DB001G	1-port RS-232/422/485 Industrial Modbus Gateway, DB9	2	1 (DB9)
MB5901-TB	1P1MB5901TB001G	1-port RS-232/422/485 Industrial Modbus Gateway, TB5	2	1 (TB)
MB5901-PoE-DB	1P1MB5901P0E01G	1-port RS-232/422/485 Ind. Modbus Gw, DB9,PoE Pwrd	2	1 (DB9)
MB5901-PoE-TB	1P1MB5901P0E02G	1-port RS-232/422/485 Ind. Modbus Gw, TB5,PoE Pwrd	2	1 (TB)

Optional Accessories			
Model name	Part Number	Description	
UN315-1212 (US-Y)	50500151120003G	Y-Type power adaptor, 100~240VAC input, 1.25A @ 12VDC output, US plug, LV6; includes a 3-pin Terminal block	
UNE315-1212 (EU-Y)	50500151120013G	Y-Type power adaptor, 100~240VAC input, 1.25A @ 12VDC output, EU plug, LV6; includes a 3-pin Terminal block	
ADP-DB9(F)-TB5	59906231G	Female DB9 to Female 3.81 TB5 Converter	
WMK-315-Black	70100000000050G	Black Aluminum Wall Mount Kit	



