



Modbus Gateway

Modbus Serial (RS485) to Modbus TCP

issue date: 05.Jan.2022, document no: SMG.100_v11

SMG.100 Features

- Powered with 120MHz Cortex M4 CPU
- Baud rate from 600 to 230.400 bps
- Data bits 5, 6, 7, 8
- Parity bits None, Odd, Even, Mark, Space
- User-friendly web page for set-up
- Quick-set, fast-reboot
- DIN rail mounting
- Operating voltage 24VDC

Technical Data

Electrical	Power Supply	DC 15...35 V
	Power Consumption	< 3 W
Ethernet	Port	1
	Interface	RJ45, 8 Pin
	Rate	10/100 Mbps, Auto-detection
	Receive Buffer	16k bytes
	Protection	2KV electromagnetism isolation
Serial	Port	1
	Protocol	Modbus RS485
	Baudrate	600bps to 230.400bps
	Data bits	5, 6, 7, 8
	Stop bit	1, 2
	Check bit	None, Even, Odd, Space, Mark
	Flow Control	Hardware, RTS/CTS
	Buffer	2k bytes
General	storage temperature	-10...50°C
	operating temperature	-40...70°C
Connections	Power	Pluggable screw terminal
	Modbus RS485	Pluggable screw terminal
	Ethernet	RJ45, 8 Pin
	Mounting	DIN Rail
Dimensions	net	100 x 60 x 36 mm
Weight	net	67 gr
	packed	85 gr

Terminals, Buttons, Connections

Modbus Terminal

A	modbus/rs485, positive pair
B	modbus/rs485, negative pair
MGnd	GND

Power Terminal

24V	15...35 Vdc
GND	ground for power

Ethernet Socket

RJ45, 8 Pin

Reset Button

Press for RESET in case of any freezing
Gateway will reset in 1 second

Reload Button

Press for RELOAD in case of missing parameters
Unit will restore the factory settings
Gateway will reset in a few second

SMG.100

Modbus Gateway - Serial to TCP

Sense & Control Technologies

Current Status	parameter	help
Local IP	Module Name: SMG.100 Firmware Revision: 3016 Current IP Address: 192.168.1.7 MAC Address: d8-b0-4c-da-fd-52 Run Time: 2day: 21hour: 50min TX Count(ETH) : 1725787/0/0 bytes RX Count(ETH) : 1914972/0/0 bytes Conn Status(ETH)A: CONNECTED(1)/LISTEN/LISTEN Conn Status(ETH)B: IDLE/IDLE/IDLE	<ul style="list-style-type: none"> • Run time: run time means the minutes since latest reboot • TX/RX Count: TX/RX count give us a calculation of the total byte we have been received or send.
Modbus		
Config		
Reboot		

Default parameters for login:

User admin

Password admin

You can check the status of unit at this page

SMG.100

Modbus Gateway - Serial to TCP

Sense & Control Technologies

Current Status	parameter	help
Local IP	<p>IP Type: <input type="text" value="Static IP"/></p> <p>Static IP: <input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="1"/> . <input type="text" value="7"/></p> <p>Submask: <input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="0"/></p> <p>Gateway: <input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="1"/> . <input type="text" value="1"/></p> <p>Dns Server: <input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="1"/> . <input type="text" value="1"/></p> <p><input type="button" value="Save"/> <input type="button" value="Cancel"/></p>	<ul style="list-style-type: none"> • IP type: StaticIP or DHCP • StaticIP Module's static ip • Submask usually 255.255.255.0 • Gateway Usually router's ip address
Modbus		
Config		
Reboot		

Default Parameters

IP Type	Static IP
Static IP	192.168.1.7
Submask	255.255.255.0
Gateway	192.168.1.1
Dns Server	192.168.1.1

SMG.100

Modbus Gateway - Serial to TCP

Sense & Control Technologies

Current Status	parameter	help
Local IP	Baud Rate: <input type="text" value="9600"/> bps(600~230400)bps	<ul style="list-style-type: none"> • local port 1~65535. when TCP Client, set this to 0 means use random local port • remote port 1~65535 • packet time/length default 0/0, means automatic packet mechanism; you can modify it as a none-zero value
Modbus	Data Size: <input type="text" value="8"/> bit	
Config	Parity: <input type="text" value="None"/>	
Reboot	Stop Bits: <input type="text" value="1"/> bit	
	Flow Control: <input type="text" value="None"/>	
	UART Packet Time: <input type="text" value="0"/> (0~255)ms	
	UART Packet Length: <input type="text" value="0"/> (0~1460)chars	
	Sync Baudrate(RF2217 Similar): <input checked="" type="checkbox"/>	
	Enable Uart Heartbeat Packet: <input type="checkbox"/>	
	Socket A Parameters	
	Work Mode: <input type="text" value="TCP Server"/> <input type="text" value="ModbusTCP"/>	
	Local/Remote Port Number: <input type="text" value="502"/> <input type="text" value="23"/> (1~65535)	
	PRINT: <input type="checkbox"/>	
	ModbusTCP Poll: <input type="checkbox"/> Poll Timeout : <input type="text" value="200"/> (200~9999) ms	
	Enable Net Heartbeat Packet: <input type="checkbox"/>	
Copyright © 2022 · Sense & Control Technologies		www.senseandcontrol.com

Default Parameters

Baudrate 9600
 Data Size 8
 Parity None
 Stop Bits 1
 Flow Control None

Work Mode TCP Server, Modbus TCP
 Port Number 502
 Poll Timeout 200ms

SMG.100

Modbus Gateway - Serial to TCP

Sense & Control Technologies

Current Status	parameter	help
Local IP	Module Name: <input type="text" value="SMG.100"/>	<ul style="list-style-type: none"> • module name max length is 15 char • Web port default 80 • ID and ID type we could use it for D2D • Mac address user could modify this MAC address • Buffer data default not checked, buffer data before tcp connection established • reset timeout default 0, 0-60 mean no timeout, >60 mean when there is no data received during this time, the device will restart
Modbus	Websocket Port : <input type="text" value="6432"/>	
Config	Webserver Port: <input type="text" value="80"/>	
Reboot	MAC Address: <input type="text" value="d8-b0-4c-da-fd-52"/>	
	User Name: <input type="text" value="admin"/>	
	Pass Word: <input type="text" value="admin"/>	
	Buffer Data Before Connected: <input type="checkbox"/>	
	Reset Timeout: <input type="text" value="3600"/> (60~65535) s	
	<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

Default Parameters

Module Name	SMG.100
Websocket	6432
Webserver	80
MAC	uniq id
User name	admin
Password	admin

SMG.100

Modbus Gateway - Serial to TCP

Sense & Control Technologies

Current Status

Reboot/Reset

help

Local IP

Restart Module

Restart Module

Modbus

Config

Reboot

- **Reboot:**
Click to make your config take effect

Whenever you can change any parameter, you have to Restart the unit. It will restart with updated parameters in a few seconds.