







Quick Start Guide for tGW-715

1

What's in the Shipping Package?

The package includes the following items:

- | | | | |
|--|--|--|--|
| <p>1 tGW-700 Series</p>  | <p>2 Quick Start (This Guide)</p>  | <p>3 Software CD</p>  | <p>4 DC Connector Power Cable</p>  |
|--|--|--|--|

2

Installing Software on Your PC

Decompress eSearch Utility, which can be obtained from either the companion CD-ROM or the web site:

 eSearch_v115_141024
WinRAR 壓縮檔
1,889 KB

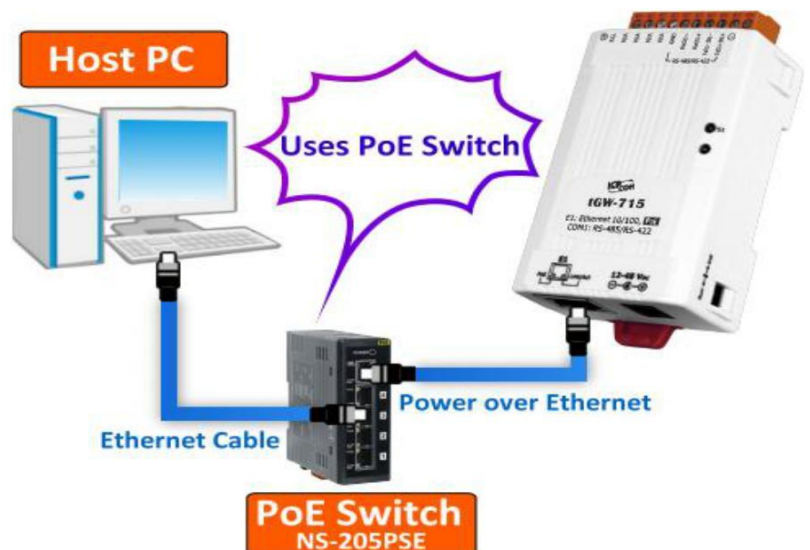
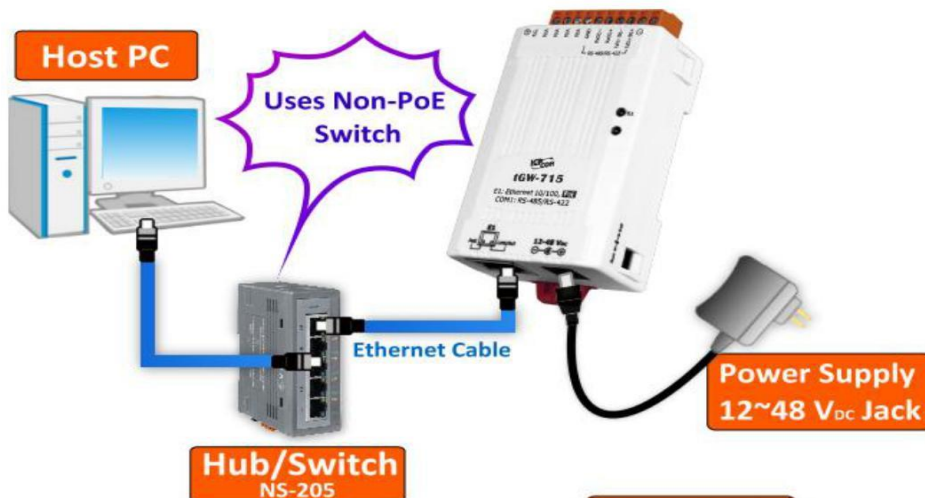


<http://ftp.icpdas.com/pub/cd/tinymodules/napdos/software/esearch/>

3

Connecting the Power and Host PC

- ① Make sure your PC has workable network settings.
Disable or well configure your Windows firewall and Anti-Virus firewall first, else the “Search Servers” on Chapter 5 may not work. (Please contact with your system Administrator)
- ② Make sure the switch is placed in the “Run” mode.
- ③ Connect both the tGW-700 and your PC to the same sub network or the same Ethernet Switch.
- ④ Supply power (PoE or +12 ~ +48 V_{DC}) to the tGW-700.



4

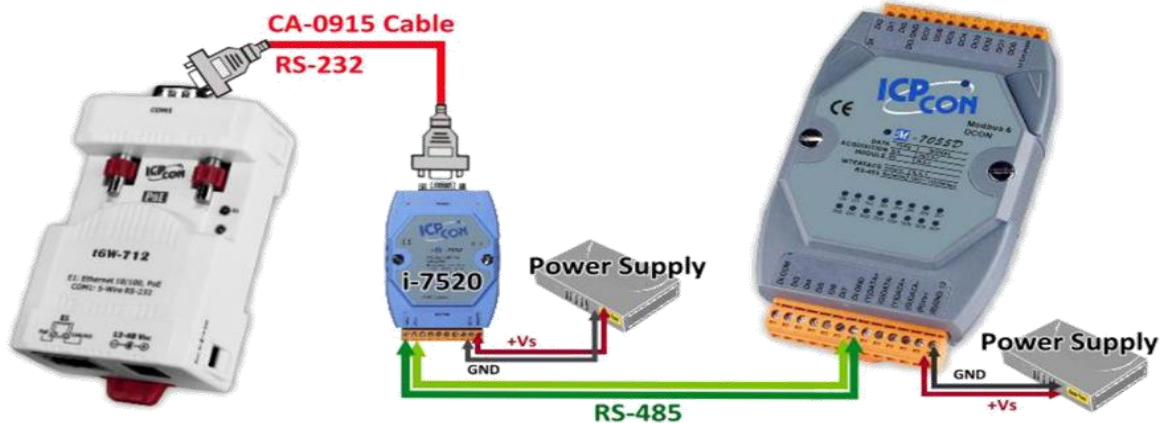
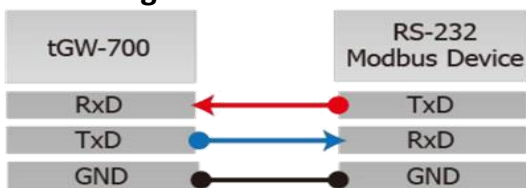
Connecting the Modbus Devices

1

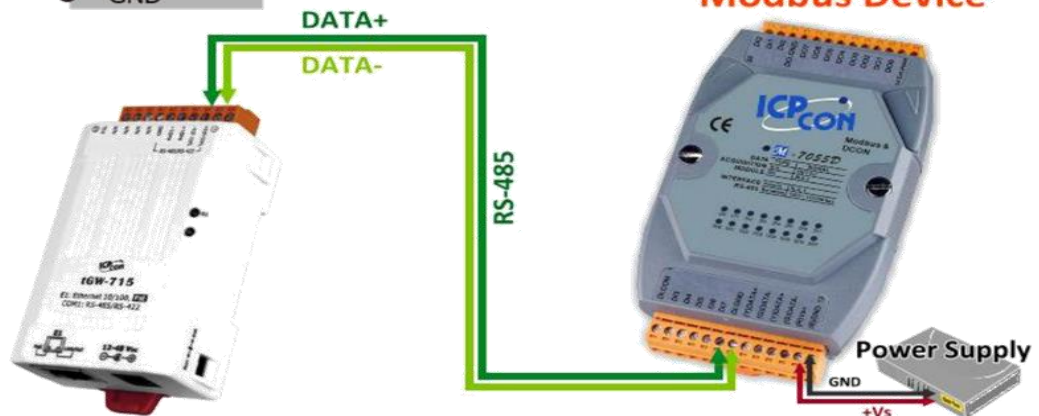
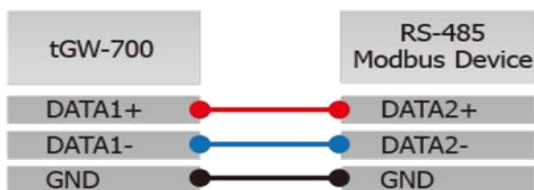
Connect the Modbus device (Slave, e.g., M-7055D, optional) to your tGW-700, as follows: Supply power (+10 ~+30 V_{DC}) to the Modbus device (e.g., M-7055D, Device ID: 1).

2

RS-232 Wiring:



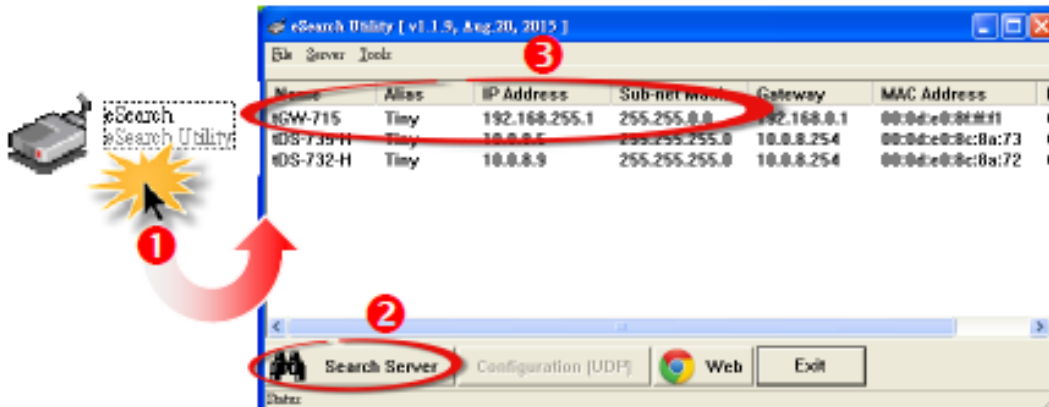
RS-485 Wiring:



5

Configuring the Correct Network Settings

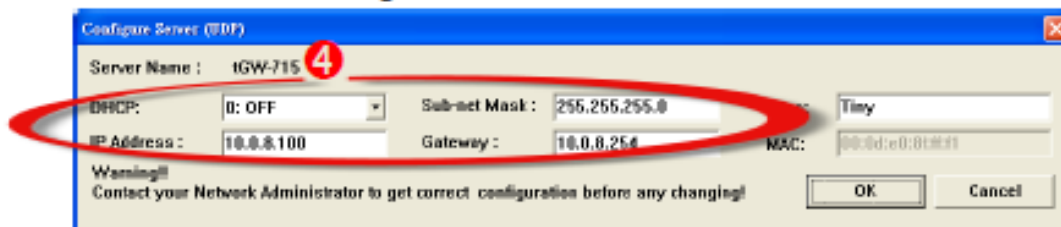
- ❶ Double click the eSearch Utility shortcut on the desktop.
- ❷ Click the "Search Servers" button to search your tGW-700.
- ❸ Double click the name of tGW-700 to open the "Configure Server (UDP)" dialog box.



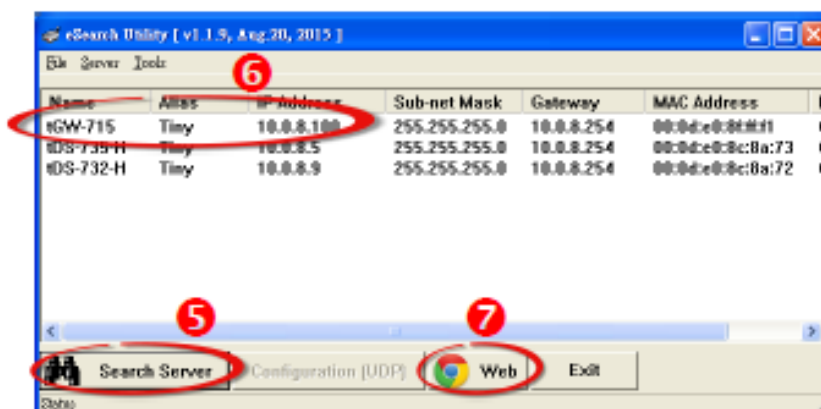
Factory Default Settings for the tGW-700:

IP	192.168.255.1
Gateway	192.168.0.1
Mask	255.255.0.0

- ❹ Contact your Network Administrator to obtain a correct network configuration (such as IP/Mask/Gateway). Enter the network settings and then click "OK".
The tGW-700 will use the new setting 2 seconds later.



- ❺ Wait 2 seconds and then click the "Search Servers" button again to ensure the tGW-700 is working well with new configuration.
- ❻ Click the name of the tGW-700 to select it.
- ❼ Click the "Web" button to log in to the web configuration pages. (Or enter the URL address of the tGW-700 in the address bar of the browser.)



6

Configuring the Serial Port



Note that if you intend to use Internet Explorer, ensure that the cache function is disabled in order to prevent browser access errors, please disable your Internet Explorer cache as follow: (If you are not using IE browser, please skip this step.)

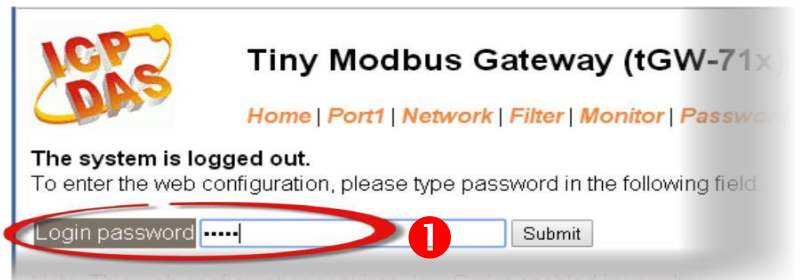
Step 1: Click “Tools” >> “Internet Options...” in the menu items.

Step 2: Click the “General” tab and then click the “Settings...” button in Temporary Internet files frame.

Step 3: Click the “Every visit to the page” and then click the “OK” button in Settings box and Internet Options box.

①

Enter the password (use the default password “admin”) in the Login password field and click the “Submit” button.

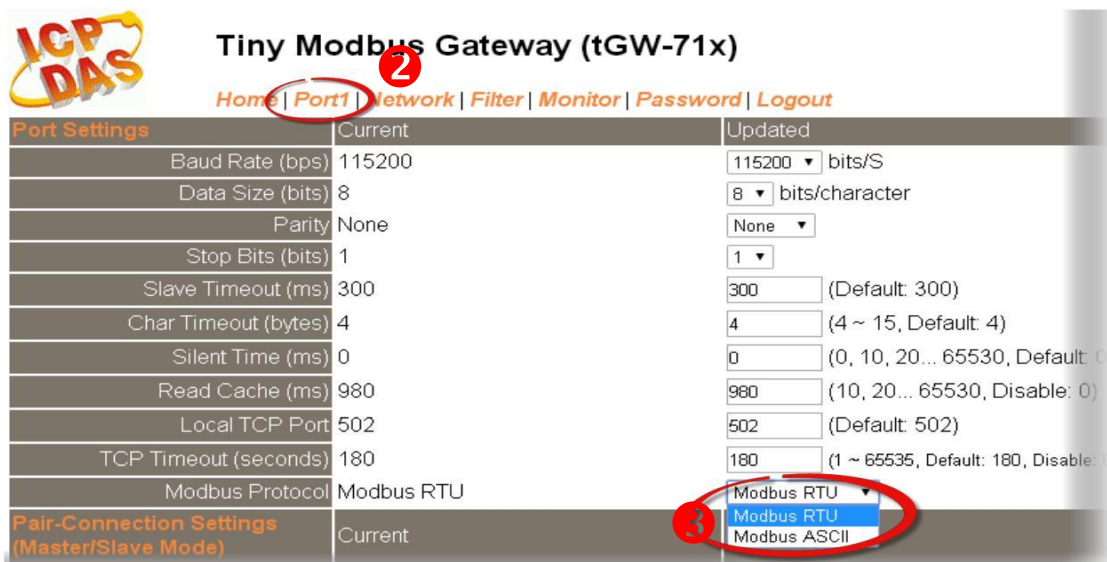


②

Click the “Port1” tab to display the Port1 Settings page.

③

Select the same Modbus protocol for tGW-700 in according to the protocol of the Modbus device (e.g., Modbus RTU/ASCII), and click the “Submit” button to save your settings.



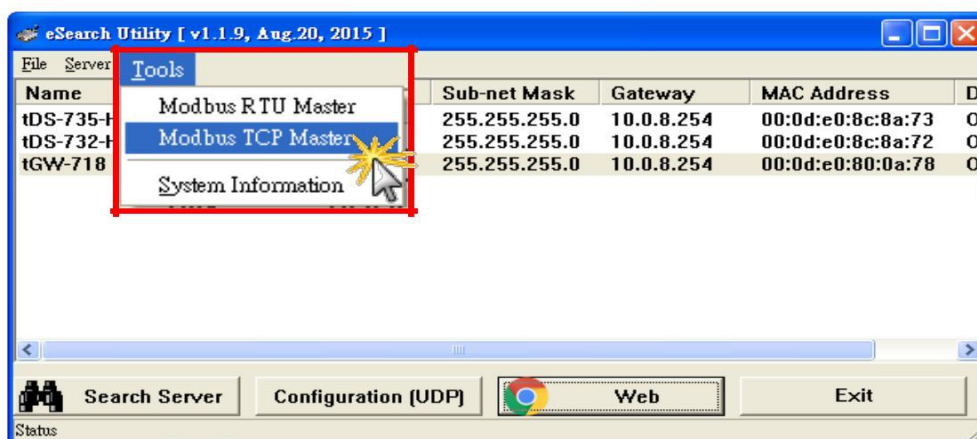
Port Settings	Current	Updated
Baud Rate (bps)	115200	115200 bits/S
Data Size (bits)	8	8 bits/character
Parity	None	None
Stop Bits (bits)	1	1
Slave Timeout (ms)	300	300 (Default: 300)
Char Timeout (bytes)	4	4 (4 ~ 15, Default: 4)
Silent Time (ms)	0	0 (0, 10, 20... 65530, Default: 0)
Read Cache (ms)	980	980 (10, 20... 65530, Disable: 0)
Local TCP Port	502	502 (Default: 502)
TCP Timeout (seconds)	180	180 (1 ~ 65535, Default: 180, Disable: 0)
Modbus Protocol	Modbus RTU	Modbus RTU
Pair-Connection Settings (Master/Slave Mode)	Current	Modbus RTU
		Modbus ASCII

7

Self-Test

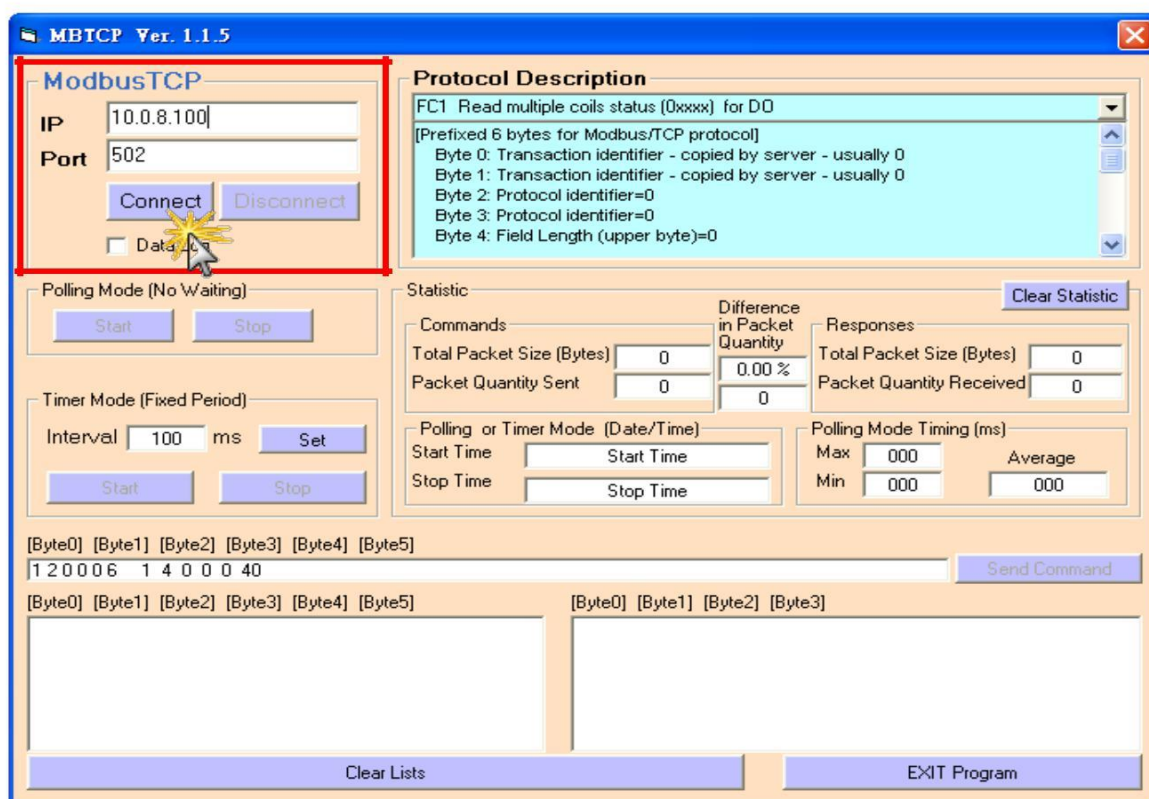
1

In the eSearch Utility, select the “Modbus TCP Master” item from the “Tools” menu to open the Modbus TCP Master Utility.



2

In the Modbus TCP Modbus Utility, enter the IP address of tGW-700 and then click the “connect” button to connect the tGW-700.



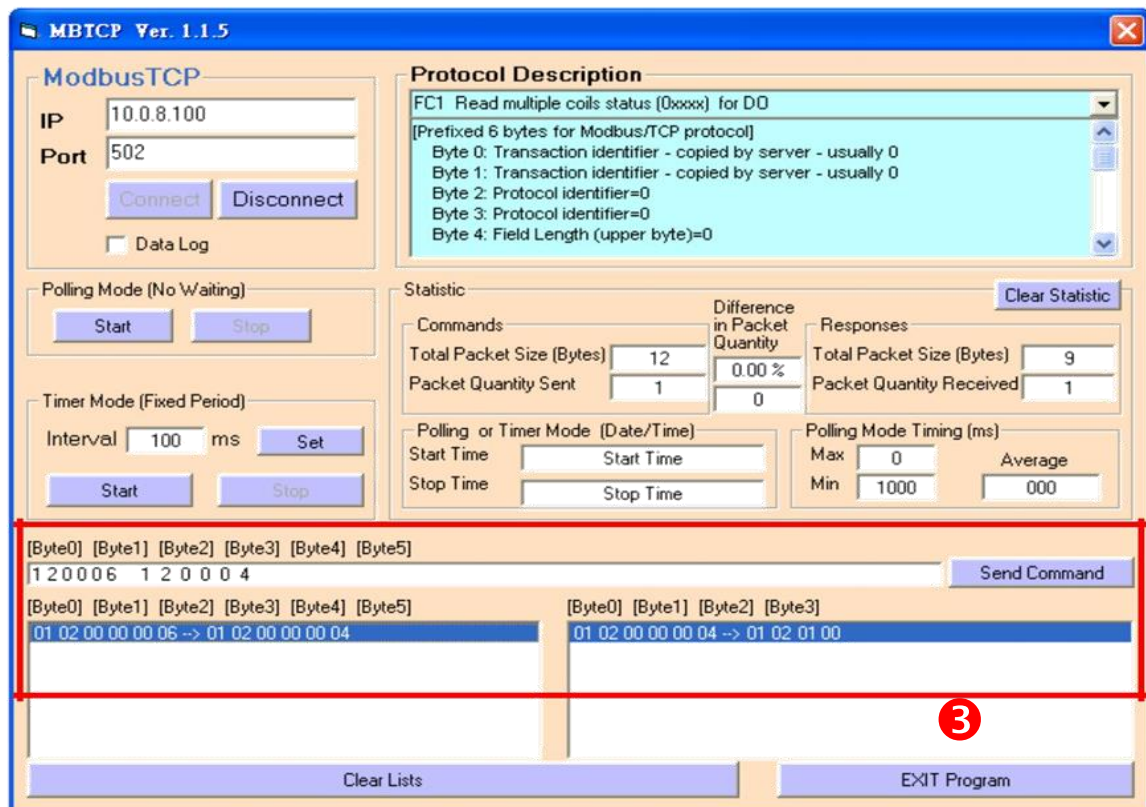
8

Successful Testing

③

Refer to “**Protocol Description**” section and type the command in the “**Command**” field then click the “**Send command**” button. If the response data is correct, it means the test is success.

e.g., If **M-7000 Modbus device ID = 1**, you send “**1 2 0 0 6 1 2 0 0 4**” for reading D/I value, you receive response “**1 2 0 0 4 1 2 1 0**” as shown below.



MBICP Ver. 1.1.5

ModbusTCP

IP: 10.0.8.100
Port: 502
[Connect] [Disconnect]
☐ Data Log

Protocol Description

FC1 Read multiple coils status (0xxxx) for D0
[Prefixed 6 bytes for Modbus/TCP protocol]
Byte 0: Transaction identifier - copied by server - usually 0
Byte 1: Transaction identifier - copied by server - usually 0
Byte 2: Protocol identifier=0
Byte 3: Protocol identifier=0
Byte 4: Field Length (upper byte)=0

Polling Mode (No Waiting)
[Start] [Stop]

Timer Mode (Fixed Period)
Interval: 100 ms [Set]
[Start] [Stop]

Statistic [Clear Statistic]

Commands	Difference in Packet Quantity	Responses
Total Packet Size (Bytes): 12	0.00 %	Total Packet Size (Bytes): 9
Packet Quantity Sent: 1	0	Packet Quantity Received: 1

Polling or Timer Mode (Date/Time)
Start Time: [Start Time] Stop Time: [Stop Time]

Polling Mode Timing (ms)
Max: 0 Average: [Average]
Min: 1000 [000]

[Byte0] [Byte1] [Byte2] [Byte3] [Byte4] [Byte5]
1 2 0 0 6 1 2 0 0 4 [Send Command]

[Byte0] [Byte1] [Byte2] [Byte3] [Byte4] [Byte5] [Byte0] [Byte1] [Byte2] [Byte3]
01 02 00 00 00 06 -> 01 02 00 00 00 04 01 02 00 00 00 04 -> 01 02 01 00

[Clear Lists] [EXIT Program]

③

Related Information



tGW-715 product page:

http://www.icpdas-usa.com/tgw_715.html