Manuals+

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Beijer Electronics GN-9289 Remote I-O Network Adapters User Guide 📕

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Beijer Electronics GN-9289 Remote I-O Network Adapters

Specifications

- Product: G- and M-series network adapters
- Interface: RJ45 Ethernet
- Default IP for Remote I/O adapter: 192.168.1.100

Adjust PC Settings

Adjust the PC port to an IP address with the same subnet as the Remote I/O adapter:

1. Open Network & Internet settings > Change adapter options > Internet Protocol Version 4 (TCP/IPv4) >Properties.
2. Set IP address to 192.168.1.99 and Subnet mask to 255.255.255.0.

Power Up Device

Power up or restart the device to enter IAP mode.

Access Web Interface

1. Ping the adapter from a command prompt: `ping 192.168.1.100`
2. Enter the web page from a standard web browser (Edge / Chrome) using IP address 192.168.1.100.

Firmware Update

1. Login with User ID: `beijer` and Password: `beijer`.
2. Select Choose File and upload the firmware file (*.bin).
3. Press Update Firmware to start the upgrade process.

Complete Update

When the update is completed, reset all dip switches to their initial state and press Reset Adapter.

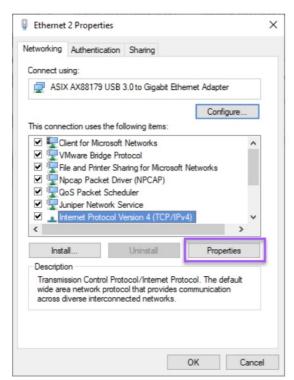## Update via Ethernet

(LAN cable)

For the Remote I/O network adapters with RJ45 Ethernet interface follow this guide. It's relevant for all modules supporting the "IAP" firmware update mode these are:
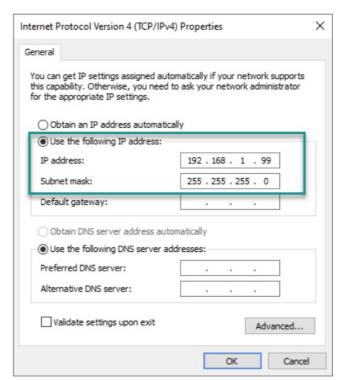
- GN9287/GL9087/M9287 PROFINET
- GN9289/GL9089/M9289 MODBUS TCP/UDP
- GN-9284 CC-link IE Field Basic adapters

Note!
Below example show the GN-9289 Modbus TCP and the M9287 / GN-9287 ProfiNet adapters and screenshots made during update procedure. For other network adapters there may be differences, please check specification documents.

1. First adjust the port to be used on the PC to an IP address with the same subnet as the Remote I/O adapter. Note, the Beijer Remote I/O adapters uses default IP: 192.168.1.100 Adjust settings in the PC: Open Network & Internet settings > Change adapter options
   - Internet Protocol Version 4 (TCP/IPv4) > Properties, then adjust the IP address and Subnet mask settings.
   - IP address: 192.168.1.99 and Subnet mask: 255.255.255.0 used in example below.

2. Example GN-9289: Set the 10-pol dip switch of the network adapter to value 254 (dec) and then Restart the adapter, that will activate the IAP Mode to give the option to login and update the firmware. IAP mode will set a fixed IP Address of the adapter to 192.168.1.100 *

   - Explanation of the dip switch value 254 (dec) = 00 1111 1110 (bin) counting from the dip switch No.1 to the left being the LSB bit.
   - Dip switch 2 to 8 = ON and dip switch 1, 9, and 10 = OFF

* Check network adapter specification for individual details

3. Power up / Restart the device, that will enter the IAP mode.

4. In IAP mode the MOD LED = Flashing Red/Green, and the NET LED = Stable green.

5. Ping the adapter from a command prompt: ping 192.168.1.100

```
C:\Users\MCO>ping 192.168.1.100

Pinging 192.168.1.100 with 32 bytes of data:
Reply from 192.168.1.100: bytes=32 time<1ms TTL=255
Reply from 192.168.1.100: bytes=32 time<1ms TTL=255
Reply from 192.168.1.100: bytes=32 time<1ms TTL=255
Reply from 192.168.1.100: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.1.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

6. Enter the web page from a standard web browser (Edge / Chrome). 192.168.1.100

7. Login with User id and Password:

   - User ID : beijer

   - Password : beijer

Beijer Electronics Network Adapter, Login

Enter user ID & password:
User ID beijer   **Password** ••••••

Login Adapter

8. To update firmware with binary file, select Choose File:

← → C ⌂   ⚠ Not secure   192.168.1.100/checklogin.cgi

Beijer Electronics Network Adapter, Update Firmware

Please specify a firmware binary file(.bin) to send to the adapter
Choose File   No file chosen

Update Firmware

9. Select the firmware file (*.bin) then press "Update Firmware" and the procedure will start. Example: Beijer GN-9289 Rev1.012 (2023-11-14)

Beijer Electronics Network Adapter, Update Firmware

Please specify a firmware binary file(.bin) to send to the adapter
Choose File   Beijer_GN-9...0231114.bin

Update Firmware

   - Example: Beijer GN-9287 Rev1.112 (2024-02-23)

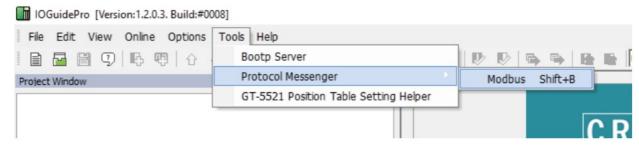10. When the update is completed, this message is shown:
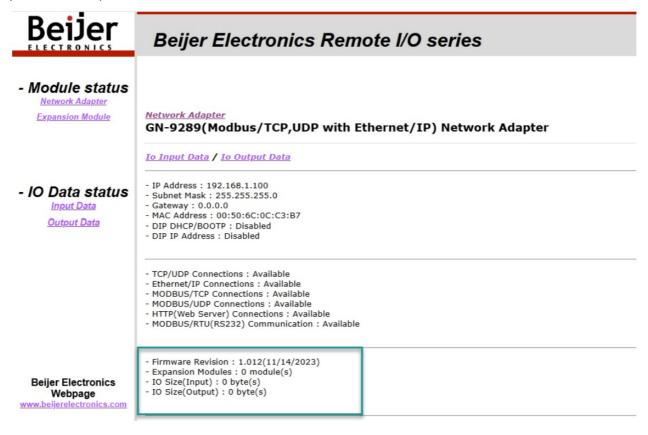
11. Now reset all dip switches to its initial state, then press "Reset Adapter".

12. Power Off/On to Restart the device.

Note, in the pages below examples how to check the firmware version of the network adapter.

13. 13. Before using the Modbus adapter, check that the adapter has completed the update:

- a. Checking the Modbus TCP adapter via the built-in web server, use 192.168.1.100 (default IP)
- b. Picture show the adapter GN-9289 and Fiemware Revision: 1.012 (11/14/2023)

14. Alternative check the firmware version of the same adapter GN-9289 using IOGuidePro

- a. Select submenu: Tools > Protocol Messenger > Modbus
- b. Device IP and Protocol: Modbus TCP

- c. From the GN-9289 manual read out the Modbus address for the Firmware version, that is address (hex): 1003
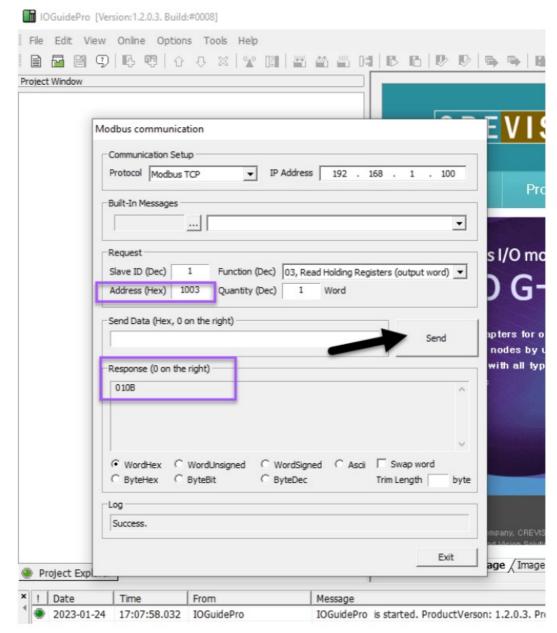
8.3. MODBUS Special Register Map

The special register map can be accessed by function code 3, 4, 6 and 16. Also the special register map must be accessed by read/write of every each address (one address).

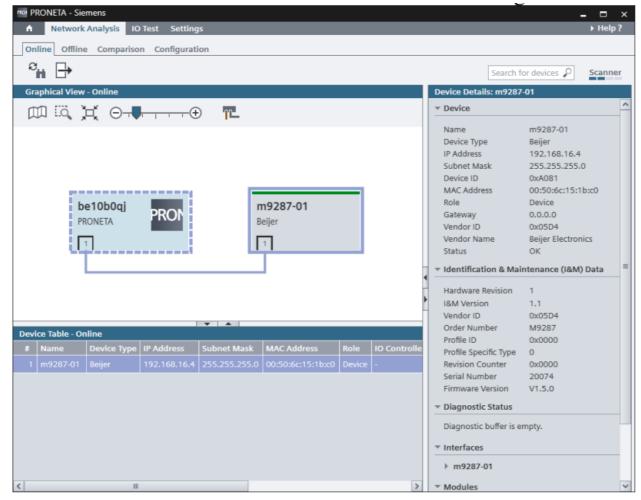### 8.3.1. Adapter Identification Special Register (0x1000, 4096)

| Address	Access	Type, Size	Description
0x1000(4096)	Read	1word	Vendor ID = 0x02E5(741), Crevis. Co., Ltd.
0x1001(4097)	Read	1word	Device type = 0x000C, Network Adapter
0x1002(4098)	Read	1word	Product Code = 0x9000
0x1003(4099)	Read	1word	Firmware revision, if 0x0101, revision 1.01
0x1004(4100)	Read	2word	Product unique serial number
0x1005(4101)	Read	String upto 34byte	Product name string (ASCII) "GN-9289,Modbus/TCPAdapter,GBUS"
0x1006(4102)	Read	1word	Sum check of EEPROM
0x1010(4112)	Read	2word	Firmware release date
0x1011(4113)	Read	2word	Product manufacturing inspection date
		7word	Composite Id of following address

- d. Send Modbus message on address (hex): 1003
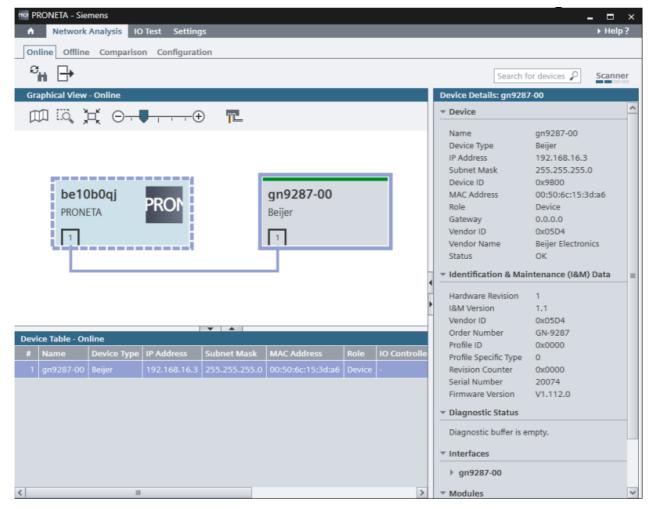
Example with F/W Rev 1.011 the unit will response: 010B (hex)

15. Before using the ProfiNet adapters, check that the adapter has completed the update:

- a. Checking the ProfiNet adapter after firmware update using for example the free tool PRONETA from Siemens.
- b. Picture show the M9287 F/W 1.005 = V1.5.0 in the dialog.

- c. Picture show the GN-9287 F/W 1.112 = V1.112.0 in the dialog.

Initiated by: MCO

Date: 2024-03-11

Approved by

Revision: 3

Revision date: 2024-12-02

FAQ

- **Q: How can I check the firmware version of the network adapter?**

  A: You can check the firmware version by accessing the built-in web server using the default IP or through IOGuidePro as outlined in the user manual.

Documents / Resources

	[Beijer Electronics GN-9289 Remote I-O Network Adapters](#) [[pdf](#)] User Guide GN-9289, M9287, GN-9287, GN-9289 Remote I-O Network Adapters, GN-9289, Remote I-O Network Adapters, Network Adapters, Adapters

References

- [User Manual](#)

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