

## 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

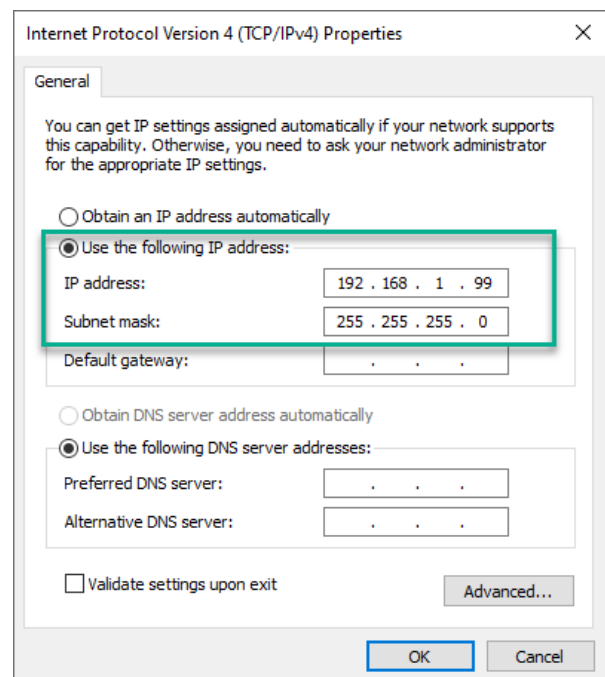
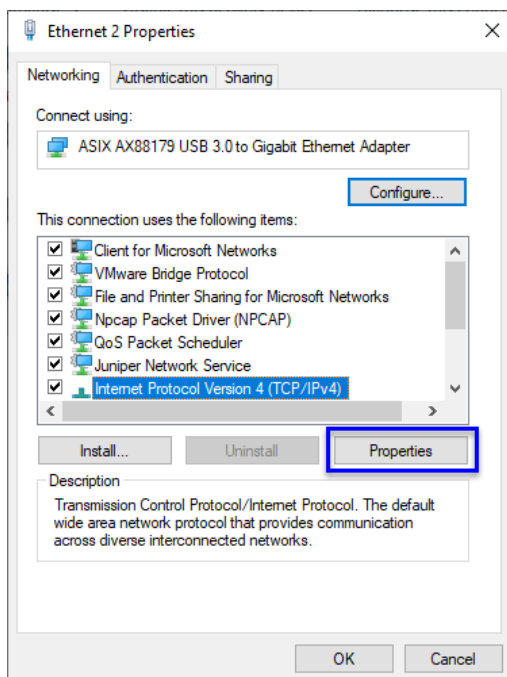
### Note!

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.



- 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



HEX	FE
DEC	254
OCT	376
BIN	1111 1110

\* Check network adapter specification for individual details

- Power up / Restart the device, that will enter the IAP mode.
- In IAP mode the MOD LED = Flashing Red/Green, and the NET LED = Stable green.
- 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
```

- Enter the web page from a standard web browser (Edge / Chrome). **192.168.1.100**
- Login with User id and Password:  
User ID : **beijer**  
Password : **beijer**

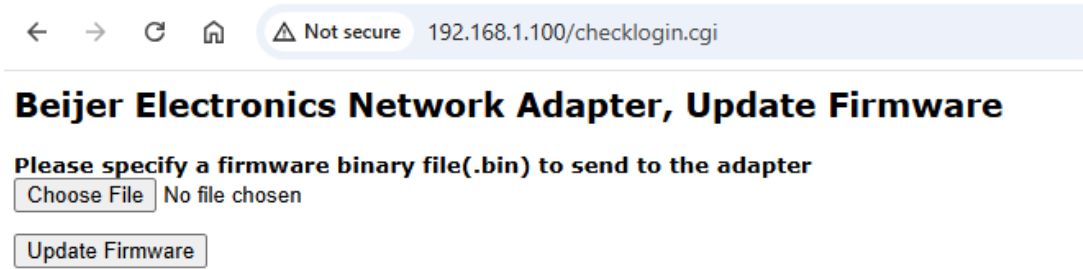
## Beijer Electronics Network Adapter, Login

Enter user ID & password:

User ID  Password

Login Adapter

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



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



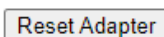
**Example:** Beijer GN-9287 Rev1.112 (2024-02-23)



10. When the update is completed, this message is shown:

### Beijer Electronics Network Adapter, Update Firmware Done!

**Before clicking button, please change DIP Switch to 0~253 for normal boot!**

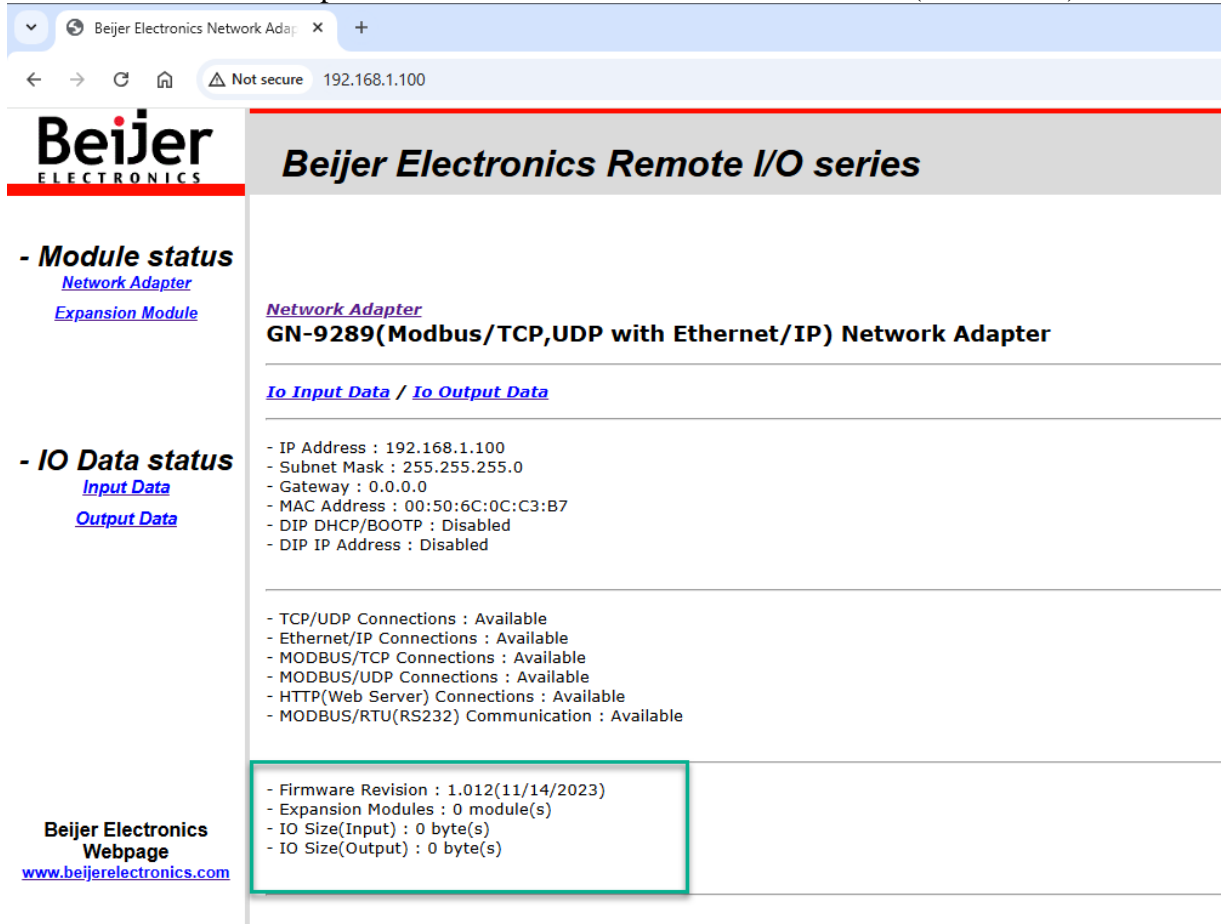


11. Now reset all dip switches to its initial state, then press “Reset Adapter”.
12. Power Off/On to Restart the device.

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

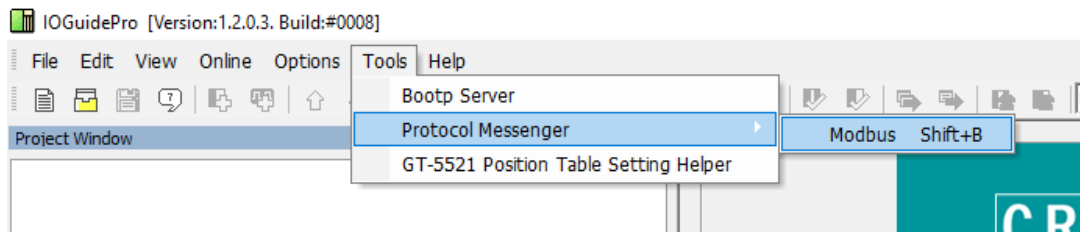
13. Before using the Modbus adapter, check that the adapter has completed the update:

- 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 Firmware 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

GN-9289 User Manual



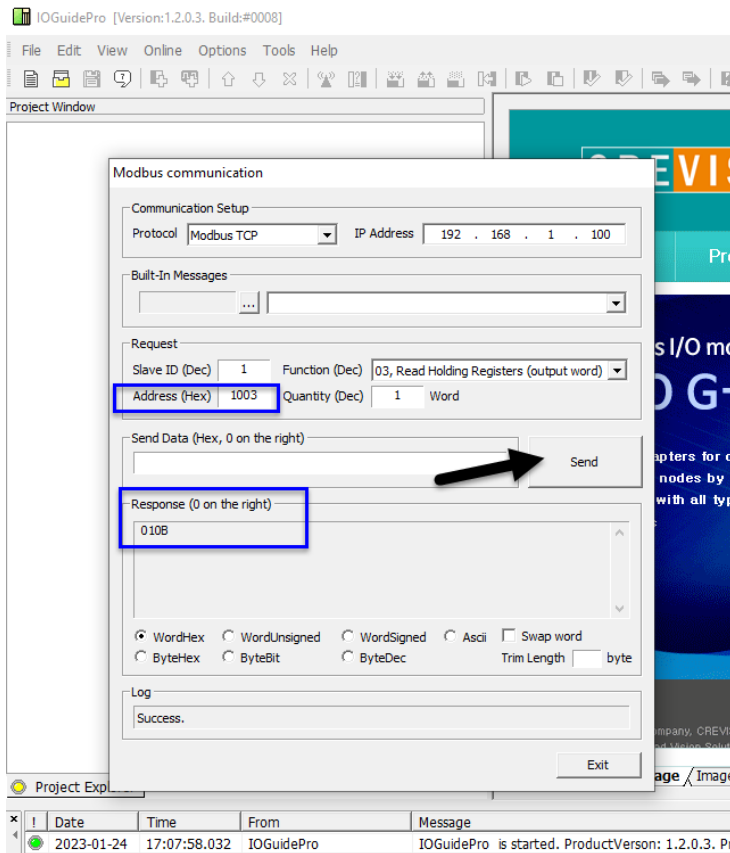
**8.3. MODBUS Special Register Map**

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)**

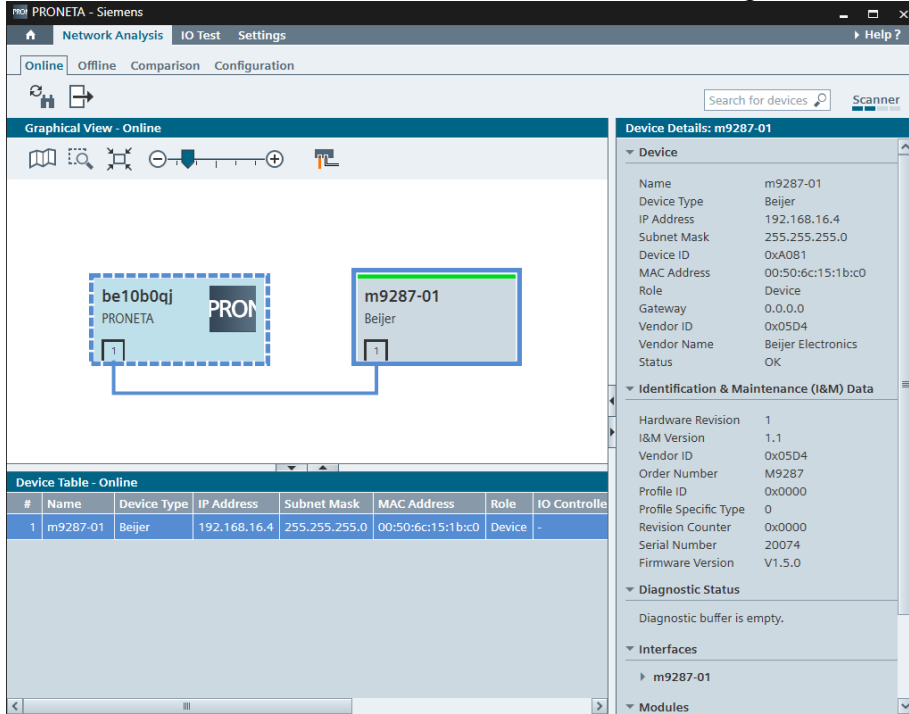
Address	Access	Type, Size	Description
0x1000(4096)	Read	1word	Vendor ID = 0x02E5(741), Crevis. Co., Ltd.
0x1001(4097)	Read	1word	Device type = 0x000C, Network Adapter
0x1002(4098)	Read	1word	Product Code = 0x9000
0x1003(4099)	Read	1word	Firmware revision, if 0x0101, revision 1.01
0x1004(4100)	Read	2word	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 *BT mode

- 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.

