







Operating manual for the LAN-interface of the Thermo-Star regulating unit

- Valid as of March 2010 -



Thermo-Star GmbH
Krantzstr. 7 / Gebäude 37
D 52070 Aachen

 +49 241 60845-0
 www.thermo-star.de

 +49 241 60845-100
 info@thermo-star.de



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1 General

Interface properties:

- Modbus TCP
- Half-duplex mode
- 10/100 TX
- Auto MDI/MDI-X

A conventional LAN cable can be used to connect the regulating unit to a PC or network (recommendation: Cat5.e or better). The cable assignment is not important.

The standard settings in the delivered state are:

- IP address: 192.168.222.222
- Default gateway: 192.168.222.222
- Subnet mask: 255.255.000.000

You can change these settings whenever you want. The procedure required for this is described in these instructions.

Caution: You should make a permanent record of changes to these settings and keep it near to the connection, since losing the settings can cause all sorts of problems that can only be solved by a service technician.

2 Preparation

You need a Windows® PC/laptop with a LAN connection and a network cable to change the settings.

Connect the regulating unit to the PC/laptop and change the LAN settings of the PC/laptop temporarily to enable a connection between the two devices.

Example for PC settings:

IP address: 192.168.222.100
Subnet mask: 255.255.000.000

Now test whether the chosen settings work by clicking **START** -> **RUN** and entering **cmd** and press **ENTER**. Then enter the following into the command line prompt:

```
ping 192.168.222.222 Enter
```

If the connection works, continue with step 3. Otherwise, check the PC settings and the cable and then try again.



3 Changing the LAN settings

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Dokumente und Einstellungen\... >telnet 192.168.222.222
```

Enter the following into the command line prompt:

telnet 192.168.222.222

Press **ENTER**.

```
Telnet 192.168.222.222
Telemechanique 499 TWD 01 100 Configuration and Diagnostics
(C) 2004 Schneider Automation Inc
Kernel Revision V1.6 Exec Version V1.6
Press <Enter> to go to into Setup Mode, Control-d to Quit
```

Press the **ENTER** key to access the setup.



```
Telnet 192.168.222.222

Telemecanique 499 TWD 01 100 Configuration and Diagnostics
(c) 2004 Schneider Automation Inc

1) IP/Ethernet Settings
   IP Source: STORED
   IP Address: 192.168.222.222
   Default Gateway: 192.168.222.222
   Netmask: 255.255.0.0
   Ethernet Frame Type: ETHERNETII

2) Serial Configuration
   Baud Rate: 19200
   Data Bits: 8
   Parity: NONE
   Stop Bits: 1
   Protocol: RTU

3) Gateway Configuration
   Slave Address Source: UNIT_ID
   Slave Address: 20
   Gateway Mode: SLAVE
   MB Broadcasts: DISABLED

4) Security Configuration

5) Ethernet Statistics

6) Serial Statistics

Commands: D)efault settings, S)ave, F)irmware Upgrade, Q)uit without save
Select Command or Parameter(1..6) to change: 1
```

Enter a **1** and press **ENTER**.

Note:
Your entry appears in duplicate within the next windows.
Do not worry about this.

```
Telnet 192.168.222.222

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IP/Ethernet Settings
-----
1)IP Source: STORED
2)IP Address: 192.168.222.222
3)Default Gateway: 192.168.222.222
4)Netmask: 255.255.0.0
5)Ethernet Frame Type: ETHERNETII
-----

Commands: R)eturn to Main Menu
Select Command or Parameter(1..4) to change: 2
```

Enter the required digit for the setting you want to change and then press **ENTER**.

Caution!
Settings 1) and 5)
must not be changed!



```
Telnet 192.168.222.222
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IP/Ethernet Settings
-----
1)IP Source: STORED
2)IP Address: 192.168.222.222
3)Default Gateway: 192.168.222.222
4)Netmask: 255.255.0.0
5)Ethernet Frame Type: ETHERNET2
-----
Commands: R)Return to Main Menu
Select Command or Parameter(1..4) to change: 22

Current IP Address: 192.168.222.222
Enter the new IP Address: 119922..116688..00..112233_
```

Change the relevant setting in accordance with your wishes and then press **ENTER**.

```
Telnet 192.168.222.222
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IP/Ethernet Settings
-----
1)IP Source: STORED
2)IP Address: 192.168.0.123
3)Default Gateway: 192.168.222.222
4)Netmask: 255.255.0.0
5)Ethernet Frame Type: ETHERNET2
-----
Commands: R)Return to Main Menu
Select Command or Parameter(1..5) to change: RR_
```

Once you have made all changes, enter a capital **R** for "Return" and then press **ENTER**.



Now enter a capital **S** for "Save" into the completely cleared window and then press **ENTER**.



You are now asked for a password to enable your changes to be adopted permanently.
Enter
USERUSER
and then press
ENTER.

Note:
Your entries appear in duplicate (once in plain text and once concealed using an X as a placeholder).
Do not worry about this.



```
Telnet 192.168.222.222

Telemecanique 499 TWD 01 100 Configuration and Diagnostics
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SAVE CONFIGURATION

-----

Configuration successfully stored to Twido.
Reboot your module for the new Configuration to be in effect.

Rebooting in 5 Seconds. You will lose your telnet connection.

GoodBye
Verbindung zu Host verloren.
```

The LAN module restarts in order to activate the changes. Please wait for thirty seconds and then press **ENTER**.

```
C:\WINDOWS\system32\cmd.exe

Telemecanique 499 TWD 01 100 Configuration and Diagnostics
(c) 2004 Schneider Automation Inc
SAVE CONFIGURATION

-----

Configuration successfully stored to Twido.
Reboot your module for the new Configuration to be in effect.

Rebooting in 5 Seconds. You will lose your telnet connection.

GoodBye
Verbindung zu Host verloren.
C:\Dokumente und Einstellungen\ >ping 192.168.2.123
```

Change the LAN settings of your PC back to the original values and, if necessary, integrate the PC and regulating unit into your existing network. Now test the new settings once more by pinging the new address.

Refer to Chapter 2.



```
C:\WINDOWS\system32\cmd.exe

Telemecanique 499 TWD 01 100 Configuration and Diagnostics
(C) 2004 Schneider Automation Inc
SAVE CONFIGURATION

-----

Configuration successfully stored to Twido.
Reboot your module for the new Configuration to be in effect.

Rebooting in 5 Seconds. You will lose your telnet connection.

GoodBye

Verbindung zu Host verloren.

C:\Dokumente und Einstellungen\>ping 192.168.2.123
Ping wird ausgeführt für 192.168.2.123 mit 32 Bytes Daten:
Zeitüberschreitung der Anforderung.
Zeitüberschreitung der Anforderung.
Zeitüberschreitung der Anforderung.
Zeitüberschreitung der Anforderung.
Ping-Statistik für 192.168.2.123:
    Pakete: Gesendet = 4, Empfangen = 0, Verloren = 4 (100% Verlust),
C:\Dokumente und Einstellungen\>ping 192.168.0.123
Ping wird ausgeführt für 192.168.0.123 mit 32 Bytes Daten:
Antwort von 192.168.0.123: Bytes=32 Zeit=1ms TTL=255
Antwort von 192.168.0.123: Bytes=32 Zeit<1ms TTL=255
Antwort von 192.168.0.123: Bytes=32 Zeit<1ms TTL=255
Antwort von 192.168.0.123: Bytes=32 Zeit<1ms TTL=255
Ping-Statistik für 192.168.0.123:
    Pakete: Gesendet = 4, Empfangen = 4, Verloren = 0 (0% Verlust),
    Ca. Zeitangaben in Millisek.:
    Minimum = 0ms, Maximum = 1ms, Mittelwert = 0ms
C:\Dokumente und Einstellungen\>
```

The illustration on the left shows a negative ping result at the top. The settings are not correct in this case.

A positive result is shown at the bottom. In this case, the changes were successful.

Please do not forget to keep the changed settings next to the regulating unit and near to the connection!!!