

# **ERZ 2000**

**Operation with PC, local or remote**

**Flow Computer ERZ 2004, P, T, Z Corrector**

**Flow Computer ERZ 2104, Calorific Value Corrector**

**Flow Computer ERZ 2002, Density Corrector**



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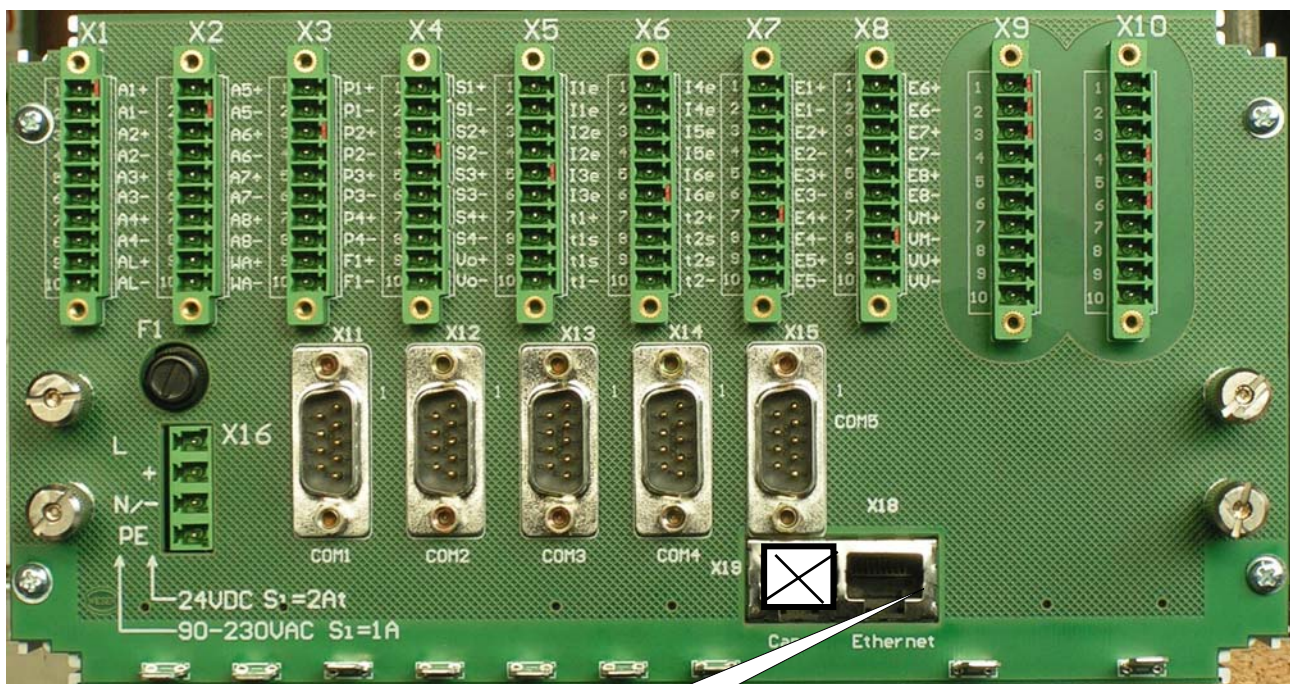
# 1 Ethernet

The flowcomputer family ERZ 2000 is equipped with an Ethernet TCP/IP interface, which can be used for networking or for operation with a PC remote or local. This manual is an appendix to the existing manual and describes only the functions of the interface, the flowcomputer is not described here.

## 1.1 Operation with PC

Besides the operation via front panel there is another comfortable possibility to parameterize the device with a PC or notebook either local or remote. Independent from a separate software it is possible to operate with the available browser at the PC (e. g. Internet Explorer or Netscape). The ERZ 2000 works as a server, the PC as a client. For local connection 1:1 without hub, a so called crossover network cable is required.

Illustration 1: overview rear panel



RJ 45 connector for Ethernet

Is the ERZ 2000 connected with the PC and all parameters and settings are made, the device can be operated remote completely. The ERZ2000 delivers adequate documentation adapted to the software version and visualization every data of the coordinate-system. If the input switch is closed the access to data is read-only, if the input switch is opened a writing access to data is possible. There is another possibility for input only the usercode and having access to the special data (according the code) for upload (writing) and download (reading). This kind of operating is possible either local with the direct connection to the TCP/IP Ethernet-interface, or remote. Should the device be operated remote, a network connection to the Intranet of the operating company via router and external PC with firewall has to be established.



**Attention : to setup the net please ask your administrator.**

## 1.2 Parameterization

First of all the parameters have to be set at the device for proper functioning of the net.

The parameterization take place with the key <0> **Mode** in chapter **TCP/IP Network** and with the function „Own IP4-address“, possibly more functions have to be set to adequate values.

**Base values**  
**Billing mode**  
**Access**  
**Display**

**Software-ID**  
**Hardware-ID**  
**Description site**  
**TCP/IP network**

The arrow is located on the first line and can be moved upwards or downwards using the cursor keys. In this example, you have to browse downwards using the Cursor Down key until **TCP/IP network** appears. Then press **Enter** to select the **TCP/IP network** chapter. A new window will open with the **TCP/IP network** chapter heading. The contents of this chapter can be browsed using the cursor keys.

## 1.2.1 Setting the parameters

For proper functioning of the network connection the adequate settings have to be made in chapter **IA**, TCP/IP network.

Access	Row	Line	Designation	Minimum	Maximum	Unit	Remark
B	IA	1	Own IP4-address	unlimited	unlimited	none	
B	IA	2	Port HTTP	0	65535	none	
B	IA	3	IP4-addr. Mail serv.	unlimited	unlimited	none	
B	IA	4	SMTP port	0	65535	none	
B	IA	5	Target address	unlimited	unlimited	none	
B	IA	6	local@.....	unlimited	unlimited	none	
B	IA	7	...@domain.my	unlimited	unlimited	none	
D	IA	8	Serial mail No.			none	
B	IA	9	Return address	unlimited	unlimited	none	
Q	IA	10	Mail trigger	0	1	none	
D	IA	11	Successful mails			none	
D	IA	12	Failed mails			none	
B	IA	13	Net mask	unlimited	unlimited	none	
B	IA	14	Gateway	unlimited	unlimited	none	
B	IA	15	DHCP	Menue		none	No, yes
B	IA	16	Inactive timeout	0 s	3600 s	s	
B	IA	17	Data timeout	0 s	3600 s	s	
Q	IA	18	Save network conf.	0	1	none	
B	IA	19	Max. block size	512	2048	Byte	
D	IA	20	Network state			none	Text

## 1.2.2 Explanations of settings in chapter IA TCP/IP network

Important data are marked with

Important!

**Coordinate IA 1** Own IP4-address

Important!

Set here the ERZ 2000 own IP4-address for the network e. g. 192.6.10.154 . With this address the ERZ 2000 works as http server. It is accessible from PC with a standard browser (Internet Explorer, Netscape) .

**Coordinate IA 2** Port http

Important!

Typical value is port 80

**Coordinate IA 3** IP4-address mail server

Address for the mail server (SMTP)

**Coordinate IA 4** SMTP port

Typical value is port 25

**Coordinate IA 5** Target address (optional, not yet realized)

In case of an alarm the device can send an e-mail with a predefined text to the above target address. ERZ 2000 has to be connected to the network (intranet) with access to mail server. (option)

**Coordinate IA 6**      local@.....  
Input of local part of the e-mail address

**Coordinate IA 7**      ...@domain.my  
Input of domain part of the own e-mail address


**Coordinate IA 8**      Serial mail No.  
Display current e-mail number when sending mails


**Coordinate IA 9**      Return address (optional)  
Return address for undeliverable e-mails.


**Coordinate IA 10**    Mail trigger  
Only for test

**Coordinate IA 11**    Successful mails  
Counter, only for test.

**Coordinate IA 12**    Failed mails  
Counter, only for test.

**Coordinate IA 13**    Net mask   
Basic setting net mask ⇒ administrator

**Coordinate IA 14**    Gateway   
Basic setting gateway ⇒ administrator

**Coordinate IA 15**    DHCP   
Automatically assignment of IP4 address, net mask and gateway (menue with „yes“ and „no“, normal setting = „no“)

**Coordinate IA 16**    Inactive timeout  
Only for test

**Coordinate IA 17**    Data timeout  
Only for test

**Coordinate IA 18**    Save network configuration  
After changing network configuration the new setting has to be stored with input of 1 in this coordinate. This new configuration is available after restart of the device (ERZ 2000).

**Coordinate IA 19**    Max. block size  
Setting block size for transmitting data with ethernet interface, minimum value = 512 byte, maximum value = 2048 byte.

**Coordinate IA 20**    Network state (normal = NO\_ERROR)  
Display network failures

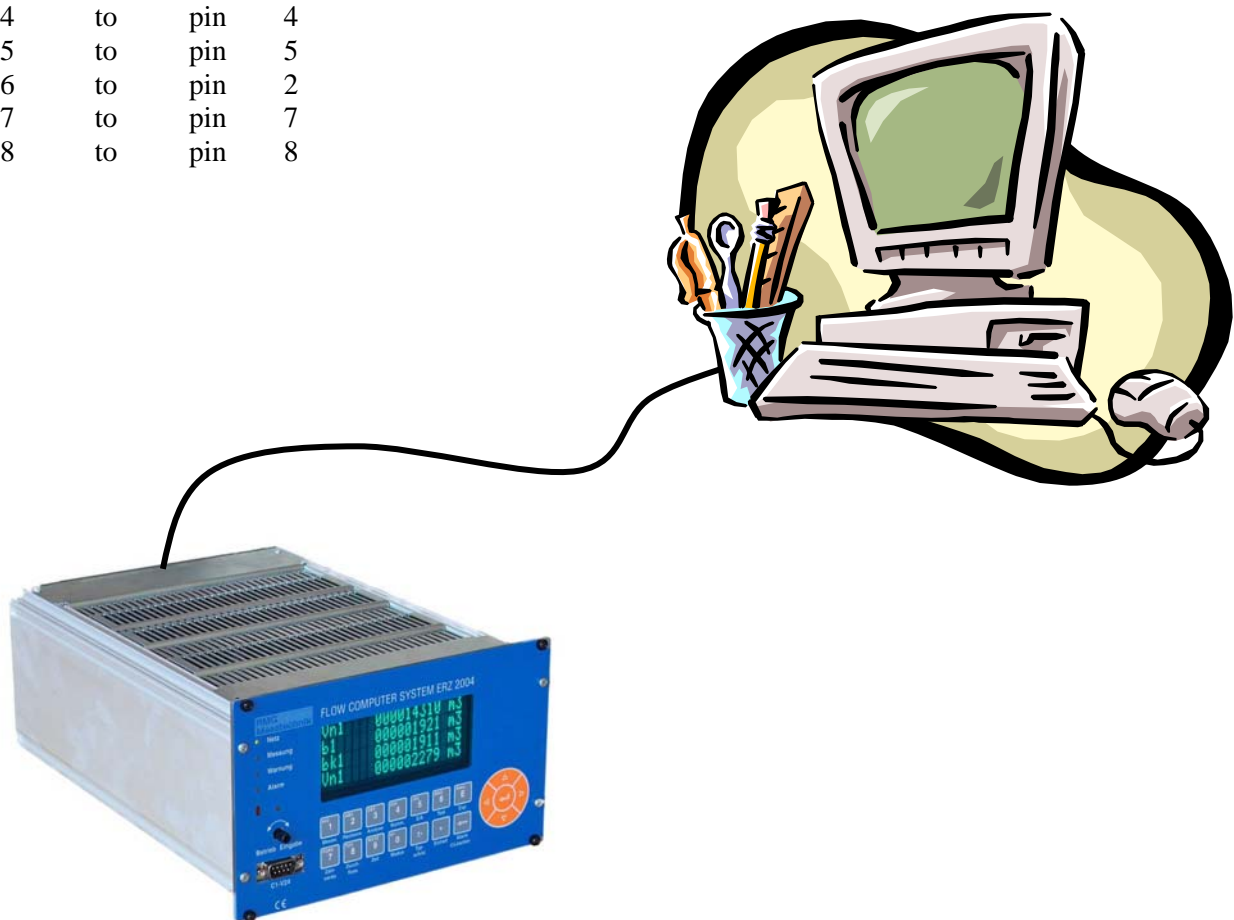
### 1.3 Data of interface connectors

The connector is located at the rear panel: connector X 19 ethernet network

Use cross-over cable for 10/100 Mbit connection from PC to PC .

Example for cross over cable

1. Connector			2. Connector	
pin	1	to	pin	3
pin	2	to	pin	6
pin	3	to	pin	1
pin	4	to	pin	4
pin	5	to	pin	5
pin	6	to	pin	2
pin	7	to	pin	7
pin	8	to	pin	8



## 1.4 Required settings for PC

Hints if internet explorer is used for **direct** connection with ERZ 2000.

Important settings for ERZ 2000 and internet explorer:

1. The IP 4 address has to be checked (same address)
2. The net mask has to be checked (same net mask)
3. DHCP should be „no“
4. The port should be port 80
5. The gateway address has to be checked (same address)

If a proxy server is used and the settings for normal internet access should not be changed, then the function „exception“ of Windows Internet Explorer is helpful.

Do the following:

Set net mask and gateway address for ERZ 2000 as it is set on your PC \*\*,

DHCP must be „no“, define a free IP 4 address for this net and parameterize ERZ 2000. Input this IP 4 address in your Internet Explorer under **Extra, Internetoptions, Connections, Settings, Extension, at Exception**.

If both devices are connected, it is sufficient to input this IP 4 address e.g. <http://192.6.10.215> in your browser and you have access to “ERZ 2000 homepage”.

If no proxy server is used, it is sufficient to input the IP 4 address, no further settings are required.

If it is not allowed to change settings of Internet Explorer (administrator), it is also possible to use any other browser like Netscape or Firefox etc. and set it individually for the use of remote operation of ERZ 2000.

\*\* Example:

with command „ipconfig“ under *Programs > DOS Promt*

visualize which IP-address, net mask and gateway address is set on PC

```
C:\>ipconfig

Windows-IP-Configuration

Ethernetadapter LAN-Connection 2:

    . . . . .specific DNS-Suffix:
    IP-address..... 192.6.10.37
    Subnet mask..... 255.255.255.0
    Standard gateway .....192.6.10.1

C:\>
```

Transfer subnet mask and gateway address into ERZ 2000,

Transfer IP address into ERZ 2000 => 192.6.10.X (X has to be uneven to 0, 1, 37, 255)

### Important !

**The browser should always search for a new version with each access to the site. Otherwise the display of ERZ 2000 data can be old data from cache.**

**Consider the following settings:**

In Internet Explorer under **Extra, Internetoptions, Common at Settings** activate the corresponding checkbox with a mouse click.