

**multisys**

**3D2-ESET  
3D2-BSET**



**Interfaces for  
KBR eBus and MODULBUS**



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### Dear Customer

We would like to thank you for choosing a KBR GmbH quality product.

In order to familiarize yourself with the operation and programming of the device and always be able to use the whole functionality of this high-quality product, we recommend that you read this manual thoroughly. The individual chapters serve to explain the technical details of the device and show how to avoid damage by means of proper installation and commissioning.

The manual is included in the scope of delivery of the device and must be accessible for the user at all times (e.g. in the switchgear cabinet). Even when the device is resold to third parties, the manual remains part of the device.

Although we used the utmost care in assembling this manual, we would like to thank you in advance for notifying us about any errors or ambiguous descriptions that might be in it. You will find a form for corrections in the appendix.

Sincerely,

KBR GmbH Schwabach

### Safety Precautions

This manual contains notes that must be observed for your personal safety and to avoid damage to equipment. Notes are identified by a warning sign or an info symbol according to the degree of hazard they represent.



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#### **Danger**

means that death, major injuries or damage **will** occur in case the appropriate safety measures are not performed.

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#### **Warning**

means that death, major injuries or damage **may** occur in case the appropriate safety measures are not performed.

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#### **Caution**

means that minor injuries or damage may occur in case the appropriate safety measures are not performed.

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#### **Note**

is an important information on the product, product handling or the respective part of the user manual to which special reference is made.

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#### **Disclaimer**

The contents of this manual has been checked with the described hardware and software components. Certain deviations, however, cannot be excluded, so the manufacturer is not liable for complete conformity. The specifications made in this manual are checked on a regular basis, necessary corrections are included in the next revision.

We appreciate your corrections and comments.

© KBR-GmbH  
Subject to change

### General Safety Precautions

In order to prevent operating errors, handling of the device is kept as simple as possible. This way, you will be able to use the device very soon.

In your own interest, however, you should read the following safety precautions carefully.



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### Warning

During installation, the applicable DIN / VDE regulations must be observed!

Mains connection, setup and operation of the device must only be performed by qualified personnel. Qualified personnel as understood in the safety precautions of this manual are persons authorized to setup, ground and mark equipment, systems and wiring systems in accordance with applicable standards.

To avoid the hazard of fire and electrical shock, the device must not be subjected to rain or other humidity!

Before the device is connected to the mains, you will have to check whether the local mains conditions comply with the specifications on the manufacturer's label. A wrong connection may destroy the device!

When connecting the device, the connection chart must be observed (see chapter "Connection chart") and the connection lines must be powerless. Only use proper line material and watch the correct polarity when wiring!

In order to ensure proper and safe operation of the product, it must be transported, stored, installed and mounted in accordance with the specifications and operated and maintained carefully.

A device showing visible damage must by all means be considered as unfit for operation and must be disconnected from the mains!

Error detection, repairs and maintenance work may only be carried out in our facilities or after contacting our service team. Every warranty obligation of the manufacturer expires if the device is opened without written consent from our service team. Proper operation can no longer be guaranteed!

Opening the device may expose parts under voltage. Capacitors in the device may still be loaded even if the device was disconnected from all voltage sources. It is generally not allowed to operate the open device!

In facilities subject to hazard of lightning, lightning protection must be provided for all input and output lines (recommendations see chapter "Protective measures")!

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### **Product Liability**

**With these product, you have acquired a quality product.**

In its manufacture, only components of the highest reliability and quality were used. Each device is subject to long-term testing before it is delivered.

For information on product liability, please refer to our General Terms and Conditions for electronic devices.

**The warranted properties of the device apply only if it is operated in accordance with its intended use!**

### **Disposal**

Please dispose of defective, outdated or no longer used devices properly.  
At your request, we will be pleased to dispose of the devices for you.

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## 1 multisys 3D2-ESET / 3D2-BSET

The **multisys 3D2-ESET** connects the KBR eBus to your computer via Ethernet.  
On the Energy Bus side, it acts as master, and on the Ethernet side, it acts as slave.  
The two interfaces (RS-485 on the KBR eBus side and Ethernet on the network side) are galvanically separated.

The **multisys 3D2-BSET** connects the KBR **Modulbus** to your computer via Ethernet.  
On the Modulbus side, it acts as master, and on the Ethernet side, it acts as slave.  
The two interfaces (RS-485 on the **Modulbus** side and Ethernet on the network side) are galvanically separated.

If necessary, the RS-485 interface on the KBR eBus side, or respectively on the Modulbus side, can be terminated using four DIP switches (terminating resistors fitted into the **multisys**).  
The device is equipped with a "power" LED for supply voltage monitoring.

The **multisys 3D2-ESET** is equipped with a power supply (85 to 265V AC/DC; 2VA) and is suitable for wall mounting on a DIN rail 7.5 mm deep, in accordance with DIN EN50022 (for distribution board mounting).

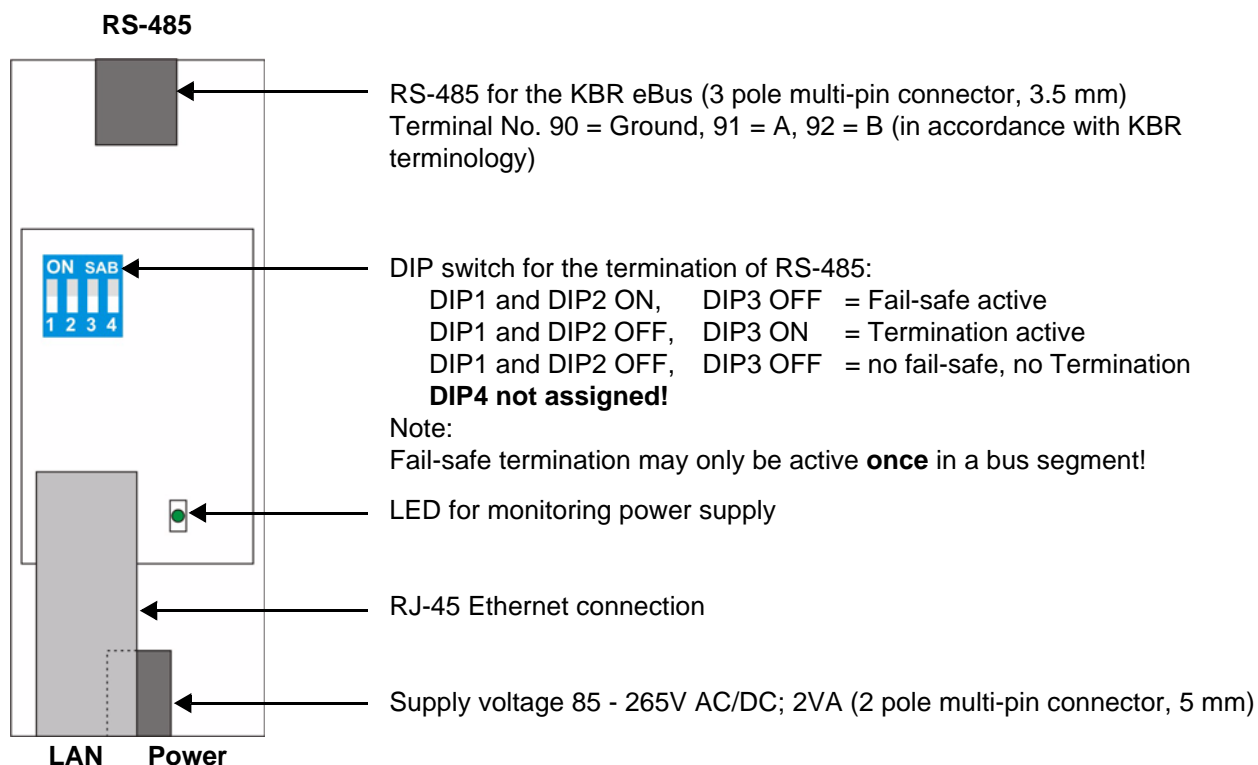


### Note

The Ethernet interface settings for the multisys 3D2-ESET and multisys 3D2-BSET are identical.

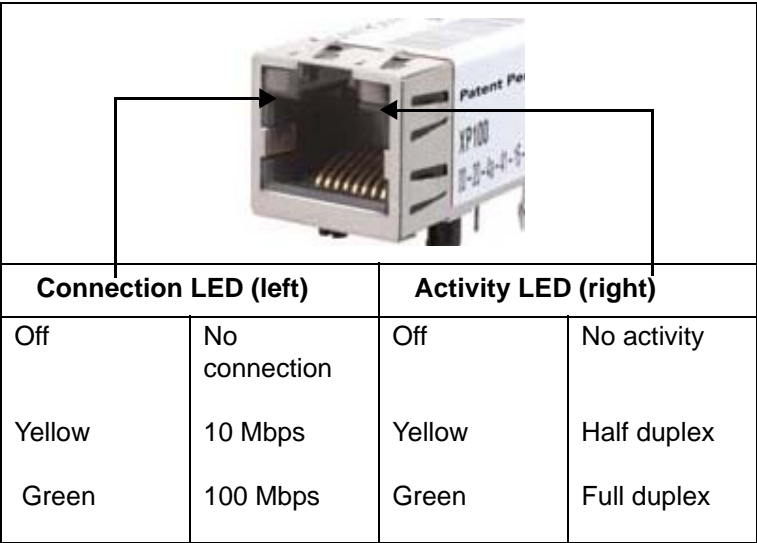
### 1.1 LAN and KBR eBus RS-485 interfaces (multisys 3D2-ESET)

The RS-485 interface is set to the KBR eBus parameters 38400 baud, 8 data bits, parity even, 1 stop bit. If necessary, it can be terminated using four DIP switches.



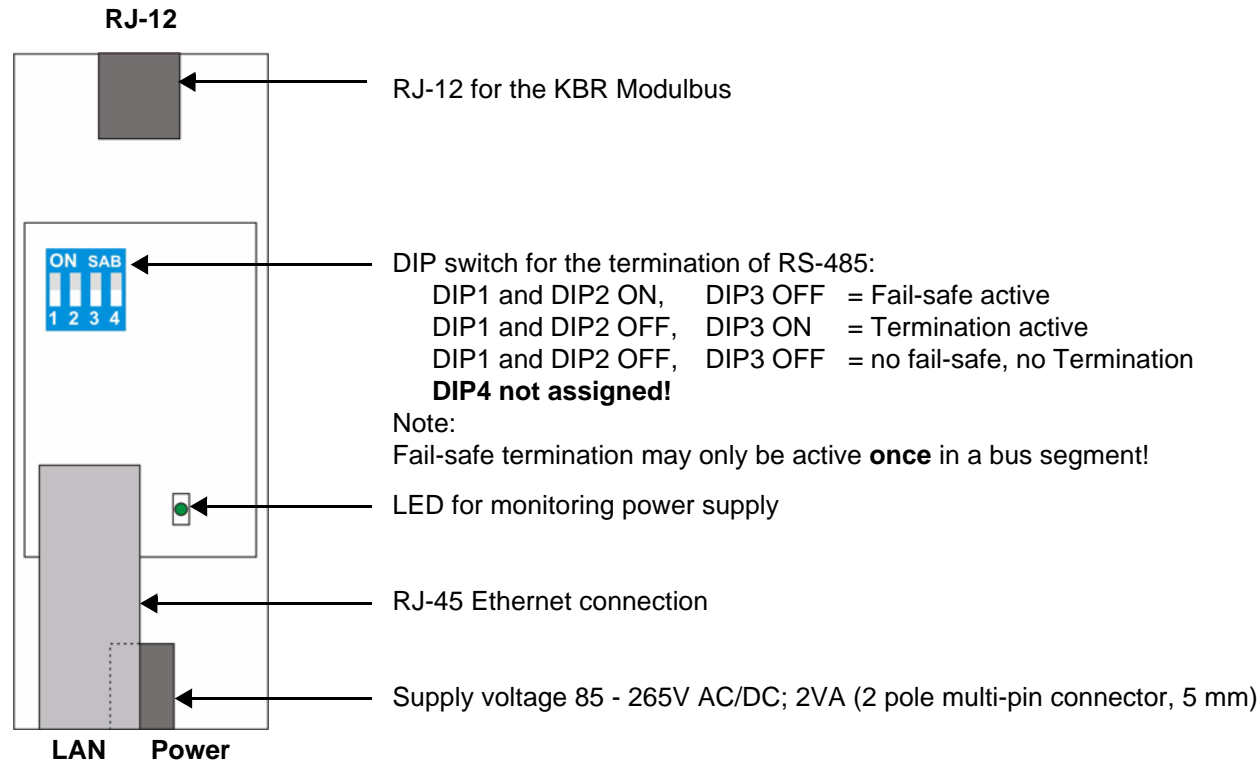


The operating status of the LAN interface (XPort) is indicated by two LEDs:



1.2 LAN and Modulbus RS-485 interfaces (multisys 3D2-BSET)

The Modbus interface is set to the Modbus parameters 38400 baud, 8 data bits, parity even, 1 stop bit. If necessary, it can be terminated using four DIP switches.



### 1.3 LAN eBus configuration via Ethernet interface (Telnet)

The Ethernet interface of the **multisys LAN eBus** can be set up using the Ethernet interface via Telnet or the Lantronix tool **DeviceInstaller**.



#### Note

On delivery, the devices are set to the IP address 192.168.0.1. For this reason, it is recommended to check whether the device can be reached using this IP address.

Depending on the IP address, the following procedures are possible:

#### 1.3.1 Procedure for IP address 192.168.0.1 or unknown IP.

The device can be configured using the Lantronix tool "DeviceInstaller".

Go to:

[http://ltxfaq.custhelp.com/cgi-bin/ltxfaq.cfg/php/enduser/std\\_adp.php?p\\_faqid=644](http://ltxfaq.custhelp.com/cgi-bin/ltxfaq.cfg/php/enduser/std_adp.php?p_faqid=644)

(February 23th, 2009) and download and install the **Microsoft .NET Framework version 2.0** and **Lantronix DeviceInstaller** (first install **Microsoft's .NET Framework version 2.0**).

After starting **DeviceInstaller**, the network connected is scanned, and the detected Lantronix ports are displayed and can then be edited.

#### 1.3.2 Procedure for IP address 0.0.0.0:

For the Ethernet address 0.0.0.0, access to the module has to be enabled first. (prerequisite: MAC ID known). The MAC ID can be gathered from a label attached to the side of the device, e.g. 00-20-4a-86-c9-91.

However, this procedure only works if the device does not have an IP address yet (0.0.0.0).

1. Connect the network cable to an existing network, or directly connect it to a computer using a crosslink cable.
2. Have the network administrator give you a network address.
3. Open DOS input window (with Start->All Programs->Accessories>Command Prompt).
4. **Connect network address using MAC ID (command arp -s):**

#### Example:

Input: `arp -s 10.66.22.98 00-20-4a-86-c9-91`

Input: `telnet 10.66.22.98 1`

Response:

Establishing connection with 10.66.22.98... Connection to host could not be established; port 1: connection could not be established

Input: `telnet 10.66.22.98 9999`

Input: Enter (**within 2 seconds**)

**Response:**

MAC address 00204AA6C991

Software version V6.5.0.7 (070919) XPTEXE

Press Enter for Setup Mode

## \*\*\* basic parameters

Hardware: Ethernet TPI

IP addr 10.66.22.98, no gateway set, netmask 255.255.255.0

## \*\*\* Security

SNMP is enabled

SNMP Community Name: public

Telnet Setup is enabled

TFTP Download is enabled

Port 77FEh is enabled

Web Server is enabled

Web Setup is enabled

ECHO is disabled

Enhanced Password is disabled

Port 77F0h is enabled

## \*\*\* Channel 1

Baudrate 38400, I/F Mode 7F, Flow 00

Port 08000

Connect Mode : C0

Send '+++' in Modem Mode enabled

Show IP addr after 'RING' enabled

Auto increment source port disabled

Remote IP Adr: --- none ---, Port 00000

Disconn Mode : 00

Flush Mode : 80

Pack Cntrl : 20

## \*\*\* Expert

TCP Keepalive : 45s

ARP cache timeout: 600s

CPU performance: Regular

Monitor Mode @ bootup : enabled

RS-485 tx enable : active low

HTTP Port Number : 80

SMTP Port Number : 25

MTU Size: 1400

Alternate MAC: disabled

Ethernet connection type: auto-negotiate

## \*\*\* E-mail

Mail server: 0.0.0.0

Unit :

Domain :

Recipient 1:

Recipient 2:

## - Trigger 1

Serial trigger input: disabled

Channel: 1

Match: 00,00

Trigger input1: X

Trigger input2: X

Trigger input3: X

Message :  
Priority: L  
Min. notification interval: 1 s  
Re-notification interval : 0 s

- Trigger 2  
Serial trigger input: disabled  
Channel: 1  
Match: 00,00  
Trigger input1: X  
Trigger input2: X  
Trigger input3: X  
Message :  
Priority: L  
Min. notification interval: 1 s  
Re-notification interval : 0 s

- Trigger 3  
Serial trigger input: disabled  
Channel: 1  
Match: 00,00  
Trigger input1: X  
Trigger input2: X  
Trigger input3: X  
Message :  
Priority: L  
Min. notification interval: 1 s  
Re-notification interval : 0 s

Change Setup:  
0 Server  
1 Channel 1  
3 E-mail  
5 Expert  
6 Security  
7 Defaults  
8 Exit without save  
9 Save and exit                      Your choice ? 0

IP Address : (000) 10.(000) 66.(000) 22.(000) 98  
Set Gateway IP Address (N) N  
Netmask: Number of Bits for Host Part (0=default) (0)8  
Change telnet config password (N) N

Change Setup:  
0 Server  
1 Channel 1  
3 E-mail  
5 Expert  
6 Security  
7 Factory defaults  
8 Exit without save  
9 Save and exit                      Your choice ? 1

Baudrate (9600) ? 38400  
I/F Mode (4C) ? 7F                      corresponds to 8 data bits, parity even, 1 stop bit  
Flow (00) ?  
Port No (10001) ? 8000  
ConnectMode (C0) ?  
Remote IP Address : (000) .(000) .(000) .(000)

```

Remote Port  (0) ?
DisConnMode (00) ?
FlushMode    (00) ?
DisConnTime (00:00) ?:
SendChar 1   (00) ?
SendChar 2   (00) ?
Change Setup:
  0 Server
  1 Channel 1
  3 E-mail
  5 Expert
  6 Security
  7 Factory defaults
  8 Exit without save
  9 Save and exit          Your choice ? 9

```

Parameters stored ...

Connection to host lost.

You can now change the settings and save them entering **9**. The device can now be operated using the new network parameters.

The *IP address*, *Default Gateway* and *Netmask* are set under the **0 Server** menu item. The serial interface (KBR eBus) is set up under the **1 Channel 1** menu item (**eBUS parameters 38400 baud, 8 data bits, parity even, 1 stop bit**).

### 1.3.3 Menu item 0 Server , setting IP address

IP address (10) etc.

Example: 10.66.22.98

Set Gateway IP Address (N) ? N

Gateway IP addr ( 0 ) ( 0 ) ( 0 ) ( 0 )

Netmask: Number of Bits for Host Part (0=default) (**8**)

Change telnet config password (N) N

When entering the netmask, observe the following chart:

Network Class	Host Bits	Netmask
A	24	255.0.0.0
B	16	255.255.0.0
C	<b>8</b>	255.255.255.0

### 1.3.4 Menu item 1 Channel 1, setting of serial interface (KBR eBus):

Baud rate (38400) ? **38400**

I/F Mode (7C) ? **7F** // the parameters *8 data bits, parity even, 1 stop bit* correspond to the **7F** coding

Flow (00) ?

Port No (10001) ? **8000**

All other parameters of this menu item stay the same.

Change Setup:

- 0 Server
  - 1 Channel 1
  - 3 E-mail
  - 5 Expert
  - 6 Security
  - 7 Factory defaults
  - 8 Exit without save
  - 9 Save and exit
- Your choice ? 9

Parameters stored ...

When entering 9, the changes are saved and accepted.

The multisys 3D2-ESET can now be accessed using the KBR Visual Energy computer software.

## 1.3.5 Web browser settings

The settings, which can be adjust by the Web Interface, are documented in the following pictures.

Channel 1 settings / Serial settings.

**LANTRONIX®** Firmware Version: **V6.5.0.7**  
MAC Address: **00-20-4A-AF-10-9B**

### Serial Settings

**Channel 1**

☐ Disable Serial Port

**Port Settings**

Protocol: **RS485 - 2 wire** Flow Control: **None**

Baud Rate: **38400** Data Bits: **8** Parity: **Even** Stop Bits: **1**

**Pack Control**

☒ Enable Packing

Idle Gap Time: **12 msec**

Match 2 Byte Sequence: ☐ Yes ☒ No

Match Bytes: **0x00** **0x00** (Hex)

Send Frame Immediate: ☒ Yes ☐ No

Send Trailing Bytes: ☒ None ☐ One ☐ Two

**Flush Mode**

**Flush Input Buffer**

With Active Connect: ☐ Yes ☒ No

With Passive Connect: ☐ Yes ☒ No

At Time of Disconnect: ☐ Yes ☒ No

**Flush Output Buffer**


With Active Connect: ☐ Yes ☒ No

With Passive Connect: ☐ Yes ☒ No


At Time of Disconnect: ☐ Yes ☒ No

**OK**

**Channel 1 settings / Connection.**



Firmware Version: **V6.5.0.7**  
 MAC Address: **00-20-4A-AF-10-9B**



**Network**

Server

Serial Tunnel

Hostlist

Channel 1

Serial Settings

**Connection**

Email

Trigger 1

Trigger 2

Trigger 3

Configurable Pins

Apply Settings

Apply Defaults

**Connection Settings**

**Channel 1**

**Connect Protocol**  
 Protocol: TCP

**Connect Mode**  

**Passive Connection:**

Accept Incoming: Yes

Password Required: ☐ Yes ☒ No

Password:

Modem Escape Sequence Pass Through: ☒ Yes ☐ No

**Active Connection:**  

Active Connect: None

Start Character: 0x 02 (in Hex)

Modem Mode: None

Show IP Address After RING: ☒ Yes ☐ No

**Endpoint Configuration:**  

Local Port: 8000

Remote Port: 0

☐ Auto increment for active connect

Remote Host: 0.0.0.0

**Common Options:**  

Telnet Com Port Cntrl: Disable

Terminal Name:

Connect Response: None

Use Hostlist: ☐ Yes ☒ No

LED: Blink

**Disconnect Mode**  

On Mdm\_Ctrl\_In Drop: ☐ Yes ☒ No

Check EOT(Ctrl-D): ☐ Yes ☒ No

Hard Disconnect: ☒ Yes ☐ No

Inactivity Timeout: 0 : 0 (mins : secs)

OK

**1.4 Box-to-Box operation**

In Box-to-Box operation, you can establish a logical permanent network connection between two **multisys 3D2-ESET** serial ports. In this operating mode, there is a permanent online connection between the two serial terminals connected. Possible additional data traffic or other network protocols do not influence the connection. In this operating mode, a permanent TCP connection between the master and slave port is established. The master port is acting as a TCP client and thus responsible for opening (after configuration or reset) and closing (after deactivating the "Box-to-Box" operating mode) tasks.

On the network side, there is only **multisys 3D2-ESET** data traffic using the Box-to-Box connection if serial reference data is available. There is no data traffic exceeding the TCP protocol.

## 1.4.1 Setting the multisys 3D2-ESET in master operation

**Example: Master IP address 10.66.22.90**

Menu 1 Channel 1



For the operating mode "Box-to-Box", only the **master port** is configured; The slave IP address (*remote IP address*) and slave port number (*remote port*) are only set at the **master port**!



The configuration of the serial interface in the *0 Server* sub menu has to be made at both ports.

Input: **telnet 10.66.22.90 9999**

Input: Enter (**within 2 seconds**)

Response:

MAC address 00204AA63735

Software version V6.5.0.7 (070919) XPTEXE

Press Enter for Setup Mode

\*\*\* basic parameters

Hardware: Ethernet TPI

IP addr 10.66.22.90, no gateway set, netmask 255.255.255.0

\*\*\* Security

SNMP is enabled

SNMP Community Name: public

Telnet Setup is enabled

TFTP Download is enabled

Port 77FEh is enabled

Web Server is enabled

Web Setup is enabled

ECHO is disabled

Enhanced Password is disabled

Port 77F0h is enabled

\*\*\* Channel 1

Baudrate 38400, I/F Mode 7F, Flow 00

Port 08000

Connect Mode : C0

Send '+++' in Modem Mode enabled

Show IP addr after 'RING' enabled

Auto increment source port disabled

Remote IP Adr: --- none ---, Port 00000

Disconn Mode : 00

Flush Mode : 00

usw.

Change Setup:

0 Server

1 Channel 1

3 E-mail

5 Expert

6 Security

7 Defaults

8 Exit without save

9 Save and exit Your choice ? **1**



```

Baudrate (38400) ?
I/F Mode (7F) ?
Flow (00) ?
Port No (8000) ?
ConnectMode (C0) ? C3
Start Char: (02) ? 02
Send '+++ ' in Modem Mode(Y) ?

Show IP addr after 'RING' (Y) ?
Auto increment source port (N) ?
Remote IP Address : (000) 10.(000) 66.(000) 22.(000) 98      Slave-IP-Adresse
Remote Port (0) ? 8000      Slave-Port
DisConnMode (00) ?
FlushMode (00) ? 80
Pack Cntrl (00) ? 20
DisConnTime (00:00) ?00:20
SendChar 1 (00) ?
SendChar 2 (00) ?

Change Setup:
 0 Server
 1 Channel 1
 3 E-mail
 5 Expert
 6 Security
 7 Defaults
 8 Exit without save
 9 Save and exitYour choice ?      9

```

When entering **9**, the changes are saved and accepted.

### 1.4.2 Setting the multisys 3D2-ESET in slave operation



A description of how to set up the **multisys 3D2-ESET** in slave operation is given in section 1.3.


### 1.4.3 Web browser settings

The settings, which can be adjusted by the Web Interface, are documented in the following pictures.


#### Channel 1 settings / Serial settings.

The screenshot displays the LANTRONIX V6.6.0.2 Web Interface. The top header shows the LANTRONIX logo, Firmware Version: V6.6.0.2, and MAC Address: 00-20-4A-B0-46-63. A left sidebar contains navigation links: Network, Server, Serial Tunnel, Channel 1, Serial Settings (highlighted), Connection, Email, Trigger 1, Trigger 2, Trigger 3, Configurable Pins, Apply Settings, and Apply Defaults. The main content area is titled 'Serial Settings' and is for 'Channel 1'. It includes a 'Disable Serial Port' checkbox, 'Port Settings' (Protocol: RS485 - 2 wire, Baud Rate: 38400, Data Bits: 8, Parity: Even, Stop Bits: 1, Flow Control: None), 'Pack Control' (Enable Packing checked, Idle Gap Time: 12 msec, Match 2 Byte Sequence: No, Match Bytes: 0x00, Send Frame Immediate: Yes, Send Trailing Bytes: None), and 'Flush Mode' (Flush Input Buffer and Flush Output Buffer, each with options for Active/Passive Connect and At Time of Disconnect, all set to No). An 'OK' button is at the bottom right.

## Channel 1 settings / Connection.



Firmware Version: **V6.6.0.2**  
 MAC Address: **00-20-4A-B0-46-63**



- Network
- Server
- Serial Tunnel
- Hostlist
- Channel 1
- Serial Settings
- Connection
- Email
- Trigger 1
- Trigger 2
- Trigger 3
- Configurable Pins
- Apply Settings
- Apply Defaults

### Connection Settings

---

#### Channel 1

**Connect Protocol**

Protocol: TCP

**Connect Mode**

**Passive Connection:**

Accept Incoming: Yes

Password Required: ☐ Yes ☒ No

Password:  

Modem Escape Sequence Pass Through: ☒ Yes ☐ No

**Active Connection:**

Active Connect: With Start Character

Start Character: 0x02 (in Hex)

Modem Mode: None

Show IP Address After RING: ☒ Yes ☐ No

---

**Endpoint Configuration:**

Local Port: 8000

Remote Port: 8000

☐ Auto increment for active connect

Remote Host: 192.168.120.191

---

**Common Options:**

Telnet Com Port Cntrl: Disable

Terminal Name:

Connect Response: None

Use Hostlist: ☐ Yes ☒ No

LED: Blink

---

**Disconnect Mode**

On Mdm\_Ctrl\_In Drop: ☐ Yes ☒ No

Check EOT(Ctrl-D): ☐ Yes ☒ No

Hard Disconnect: ☒ Yes ☐ No

Inactivity Timeout: 0 : 20 (mins : secs)

OK

#### 1.4.4 Resetting the multisys 3D2-ESET from master to slave operation

Example: Master IP address 10.66.22.90

To reset a **multisys 3D2-ESET** configured as master to slave for "normal" network operation, you have to change the parameter in the **1 Channel 1** menu as follows:

Input: `telnet 10.66.22.90 9999`

Input: Enter (**within 2 seconds**)

Response:

MAC address 00204AA63735

Software version V6.5.0.7 (070919) XPTEXE

Press Enter for Setup Mode

\*\*\* basic parameters

Hardware Ethernet TPI

IP addr 10.66.22.90, no gateway set, netmask 255.255.255.0

\*\*\* Security

SNMP is enabled

SNMP Community Name: public

Telnet Setup is enabled

TFTP Download is enabled

Port 77FEh is enabled

Web Server is enabled

Web Setup is enabled

ECHO is disabled

Enhanced Password is disabled

Port 77F0h is enabled

\*\*\* Channel 1

Baudrate 38400, I/F Mode 7F, Flow 00

Port 08000

Connect Mode : C3

Send '+++' in Modem Mode enabled

Show IP addr after 'RING' enabled

Auto increment source port disabled

Remote IP Addr: 10.66.22.98, Port 08000 Start Char: 02

Disconn Mode : 00 Disconn Time: 00:20

Flush Mode : 80

Pack Cntrl : 20

etc.

Change Setup:

0 Server

1 Channel 1

3 E-mail

5 Expert

6 Security

7 Defaults

8 Exit without save

9 Save and exit

Your choice ? 1

Baud rate (38400) ?

I/F Mode (7F) ?

Flow (00) ?

Port No (8000) ?

ConnectMode (C3) ? C0

Send '+++' in Modem Mode (Y) ?

Show IP addr after 'RING' (Y) ?

Auto increment source port (N) ?

Remote IP Address : (010) 0.(000) 0.(000) 0.(000) 0

Remote Port (8000) ? 00000

DisConnMode (00) ?

FlushMode (80) ?

Pack Cntrl (20)

DisConnTime (00:20) ? 00:00

SendChar 1 (00) ?

SendChar 2 (00) ?

Change Setup:

- 0 Server
  - 1 Channel 1
  - 3 E-mail
  - 5 Expert
  - 6 Security
  - 7 Defaults
  - 8 Exit without save
  - 9 Save and exit
- Your choice ? 9

When entering 9, the changes are saved and accepted.

### 1.4.5 Web browser settings

The settings, which can be adjust by the Web Interface, are documented in the following pictures.

#### Channel 1 settings / Serial settings.

**LANTRONIX®** Firmware Version: **V6.6.0.2**  
MAC Address: **00-20-4A-B0-46-35**

### Serial Settings

#### Channel 1

☐ Disable Serial Port

#### Port Settings

Protocol: **RS485 - 2 wire** Flow Control: **None**  
Baud Rate: **38400** Data Bits: **8** Parity: **Even** Stop Bits: **1**

#### Pack Control

☒ Enable Packing  
Idle Gap Time: **12 msec**  
Match 2 Byte Sequence: ☐ Yes ☒ No  
Match Bytes: **0x00** **0x00** (Hex)  
Send Frame Immediate: ☒ Yes ☐ No  
Send Trailing Bytes: ☒ None ☐ One ☐ Two

#### Flush Mode

<b>Flush Input Buffer</b> With Active Connect: <input type="radio"/> Yes <input checked="" type="radio"/> No With Passive Connect: <input type="radio"/> Yes <input checked="" type="radio"/> No At Time of Disconnect: <input type="radio"/> Yes <input checked="" type="radio"/> No	<b>Flush Output Buffer</b> With Active Connect: <input type="radio"/> Yes <input checked="" type="radio"/> No With Passive Connect: <input type="radio"/> Yes <input checked="" type="radio"/> No At Time of Disconnect: <input type="radio"/> Yes <input checked="" type="radio"/> No
--	---

**OK**

**Channel 1 settings / Connection.**

LANTRONIX®

Firmware Version: **V6.6.0.2**  
 MAC Address: **00-20-4A-B0-46-35**

---

🏠

**Network**

Server

Serial Tunnel

Hostlist

**Channel 1**

Serial Settings

**Connection**

Email

Trigger 1

Trigger 2

Trigger 3

Configurable Pins

Apply Settings

Apply Defaults

### Connection Settings

---

**Channel 1**

**Connect Protocol**

Protocol: TCP

**Connect Mode**

**Passive Connection:**

Accept Incoming: Yes

Password Required: ☐ Yes ☒ No

Password:  

Modem Escape Sequence Pass Through: ☒ Yes ☐ No

**Active Connection:**

Active Connect: None

Start Character: 0x0D (in Hex)

Modem Mode: None

Show IP Address After RING: ☒ Yes ☐ No

---

**Endpoint Configuration:**

Local Port: 8000

Remote Port: 0

☐ Auto increment for active connect

Remote Host: 0.0.0.0

---

**Common Options:**

Telnet Com Port Cntrl: Disable

Terminal Name:

Connect Response: None

Use Hostlist: ☐ Yes ☒ No

LED: Blink

---

**Disconnect Mode**

On Mdm\_Ctrl\_In Drop: ☐ Yes ☒ No

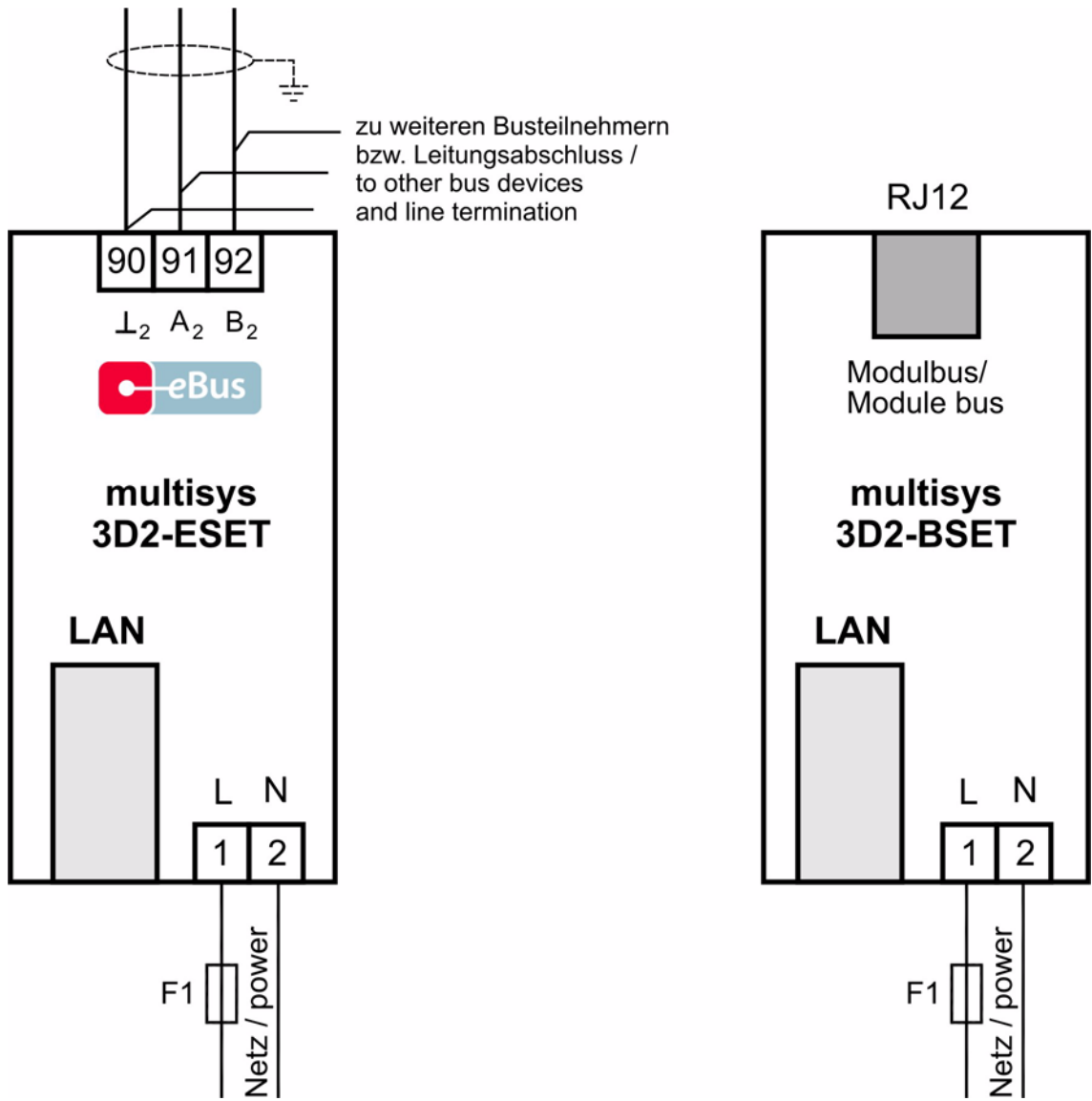
Check EOT(Ctrl-D): ☐ Yes ☒ No

Hard Disconnect: ☒ Yes ☐ No

Inactivity Timeout: 0 : 0 (mins : secs)

OK

**1.5 Connection diagram**



\* For voltage supply, see nameplate.

## 2 Technical Data

### 2.1 Power supply

Power supply	85 - 265V AC/DC ; <10VA
--------------	-------------------------

### 2.2 Electrical connection

Connection elements		Plug-in terminals
Permissible cross section of the connection lines		Power supply 2.5 mm <sup>2</sup> , bus connection 1.5 mm <sup>2</sup>
Input Control voltage	Fuse protection	max. 6 A
LAN connection		8P8C modular connector
BUS connection	Connection material	For proper operation, please only use shielded twisted-pair cables; e.g. I-Y(St)Y 2x2x0.8
BUS connection <b>multisys 3D2-ESET</b>	Pins for BUS connection via RS-485	Device Terminal 90 (⊥) Terminal 91 (A) Terminal 92 (B)
BUS connection <b>multisys 3D2-BSET</b>		6 pole modular cable, RJ-12 connector: 6P6C

### 2.3 Mechanical data

Top hat rail device	Housing measures	90 x 36 x 61 mm (H x W x D),
	Mounting type	Wall mounting on DIN rail 7.5 mm deep, in accordance with DIN EN 50022 Suitable for distribution board mounting
	Weight	approx. 120g

### 2.4 Standards and Miscellaneous

Environmental conditions	Standards	DIN EN 60721-3-3/A2: 1997-07; 3K5+3Z11; (IEC721-3-3; 3K5+3Z11)
	Operating temperature	- 5°C ....+60°C
	Humidity	5% .....95%
	Storage temperature	-25°C ....+70°C
Electrical safety	Standards	DIN EN 61010-1: 2002-08;
	Protection class	I in accordance with DIN EN 61010-1 : 2002-08
	Mode of protection	IP20 in accordance with DIN EN 40050 Part 9: 1993-05
	Electromagnetic compatibility	DIN EN 61000-6-3: 2005-06; (IEC 61000-6-3) DIN EN 61000-6-2: 2006-03; (IEC 61000-6-2)



# ERKLÄRUNG DER KONFORMITÄT DECLARATION OF CONFORMITY DÉCLARATION DE CONFORMITÉ

Wir **KBR GmbH Schwabach**

We/Nous (Name des Anbieters / supplier's name / nom du fournisseur)

**Am Kiefernschlag 7  
D-91126 Schwabach**

(Anschrift / address / adresse)

erklären in alleiniger Verantwortung, dass das (die) Produkt(e) / declare under our sole responsibility that the product(s) / Déclarons sous notre seule responsabilité, que le(s) produit(s)

**multisys 3D2-ESET  
multisys 3D2-BSET**

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Low Voltage Directive No.  
Directive Basse Tension N°

**EMV-Richtlinie Nr.**

EMV Directive No.  
EMV Directive N°

**2006/95/EG**

2006/95/EC  
2006/95/CE

**2004/108/EG**

2004/108/EC  
2004/108/CE

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This is documented by the accordance with the following standard(s) / Justifié par le respect de la (des) norme(s) suivante(s)

**DIN EN 61010-1-2001;**

**DIN EN 61010-1/B1:2002**

**DIN EN 61010-1/B2:2004**

**DIN EN 61000-6-1:2007**

**DIN EN 61000-6-2:2005**

**DIN EN 61000-6-3:2007**

**DIN EN 61000-6-4:2007**

(Titel und/oder Nr. sowie Ausgabedatum der Norm(en))

Title and/or number and date of issue of the standard(s)

Titre et/ou numéro et date d'édition de la (des) norme(s)



**Schwabach, 18.07.2011**

(Ort und Datum der Ausstellung)

Place and date of issue

Lieu et date de l'édition)



Geschäftsführer

General manager

An  
**KBR GmbH**  
Abteilung Entwicklung  
Am Kiefernschlag 7  
**D-91126 Schwabach**

To  
**KBR GmbH**  
Development  
Am Kiefernschlag 7  
**D-91126 Schwabach / Germany**

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