ESSER
by Honeywell

Installation Instruction

Multiprotocol-Gateway

DP500, DP7500-2 and DP35000

GB

Technical changes reserved!

Intended purpose

This product may only be used for the applications outlined in the catalogue and in the technical description and only in combination with the recommended and approved external devices and components.

Warning

In order to ensure correct and safe operation of the product, it must be transported, stored, installed and assembled properly and operated carefully.

Safety-Related Information for the User

This manual includes all the information required for proper use of the products described in it.

The term "qualified personnel" in the context of safety remarks in this manual or on the product refers to persons that

- as project planning staff are familiar with the safety guidelines of fire alarm and extinguishing systems.

- as trained service engineers were trained on the components of the alarm and extinguishing systems and are familiar with the information on their operation contained in this manual.

- as trained installation and service personnel have the necessary qualifications for carrying out repairs on such fire alarm and extinguishing system components or who are authorised to operate, ground and label electrical circuits and devices/systems in line with the corresponding safety standards.

Hazard Statements

The following information is given in the interest of your personal safety and to prevent damage to the product described in the manual and all equipment connected to it.

Hazard statements and warnings for the prevention of hazards to the life and health of users and maintenance staff as well as damage to the equipment are highlighted in the manual by the pictograms defined here. The pictograms have the following meaning within the context of the manual:

Means that there is a danger of serious injury, death or considerable material damage if the respective safety measures are not taken.

Is important information about the product or a particular part of the manual which should be read with particular attention.

Dismantling

In accordance with Directive 2002/96/EC (WEEE), the manufacturer will accept the return of the electrical and electronic device for proper disposal after dismantling!

1 General

This documentation describes the features and use of the Multiprotocol Gateway (MPG). It is no substitute for knowledge of the connected devices and their communication protocols. The respective device documentation must also be observed.

The Multiprotocol Gateway allows the connection of the fire alarm systems 800x / IQ8Control and FlexES control to other systems over the essernet® network in combination with the serial essernet® interface.

The Multiprotocol Gateway translates the essernet® data protocol (EDP) to standard software protocols for communication with overarching building services management systems as well as devices from other manufacturers.

The data points are specified using text files for each protocol driver. A connection between two data points is defined in another text file by specifying the source and destination. The data points are depicted on the basis of analogue actual values, analogue set points, digital set points and digital actual values.

The basic configuration is performed by importing the project data from the programming software tools 8000 and conversion of the editable project data into data objects of the respective target protocol. The gateway has a secure Web interface with separate user management. This enables remote diagnosis, state queries of all data points and switching via the gateway, if corresponding Esser components are used, all without additional software.

An expansion card (PC104) can be optionally installed. This is included in the package with the protocol option for communication protocols such as LonTalk®. Connecting the Multiprotocol Gateway to the essernet® requires a serial unidirectional or bi-directional essernet® interface (SEI) - Part No.: 784855/784856/784859 in as well as an interface module RS232 / V24 (Part No. 772386). Using the bi-directional SEI also makes it possible to use switching functions, such as switching detectors or detector zones on or off. In addition to the essernet® protocol, the product also comes with one external protocol. The Multiprotocol Gateway is designed for 230 V AC operation.

This documentation describes the hardware installation of the Multiprotocol Gateway.

Additional information about configuration and commissioning is covered in the product-specific training provided by the manufacturer. This training is offered upon consultation with the Technical Sales department.

1.1 Registered Trademarks

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- Microsoft, Windows and MS-DOS are registered trademarks of Microsoft Corporation

- BACnet and ASHRAE are registered trademarks of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, INC. (ASHRAE)

- Intel and Pentium are registered trademarks of Intel Corporation

- ARCnet is a registered trademark of the Datapoint Corporation

- IBM-PC and IBM-AT are registered trademarks of the International Business Machines Corporation (IBM)

- LONTalk is a registered trademark of Echelon, Inc.

1.2 General System Structure

The gateway (MPG) allows for communication between devices that utilise different communication protocols. It is typically used in the area of technical building equipment.

Some of the systems that can communicate via the gateway are control and communication systems, DDC systems, controls for cooling units or cogeneration plants, room regulators, safety technology such as fire and burglar alarm systems, lighting controls and others.
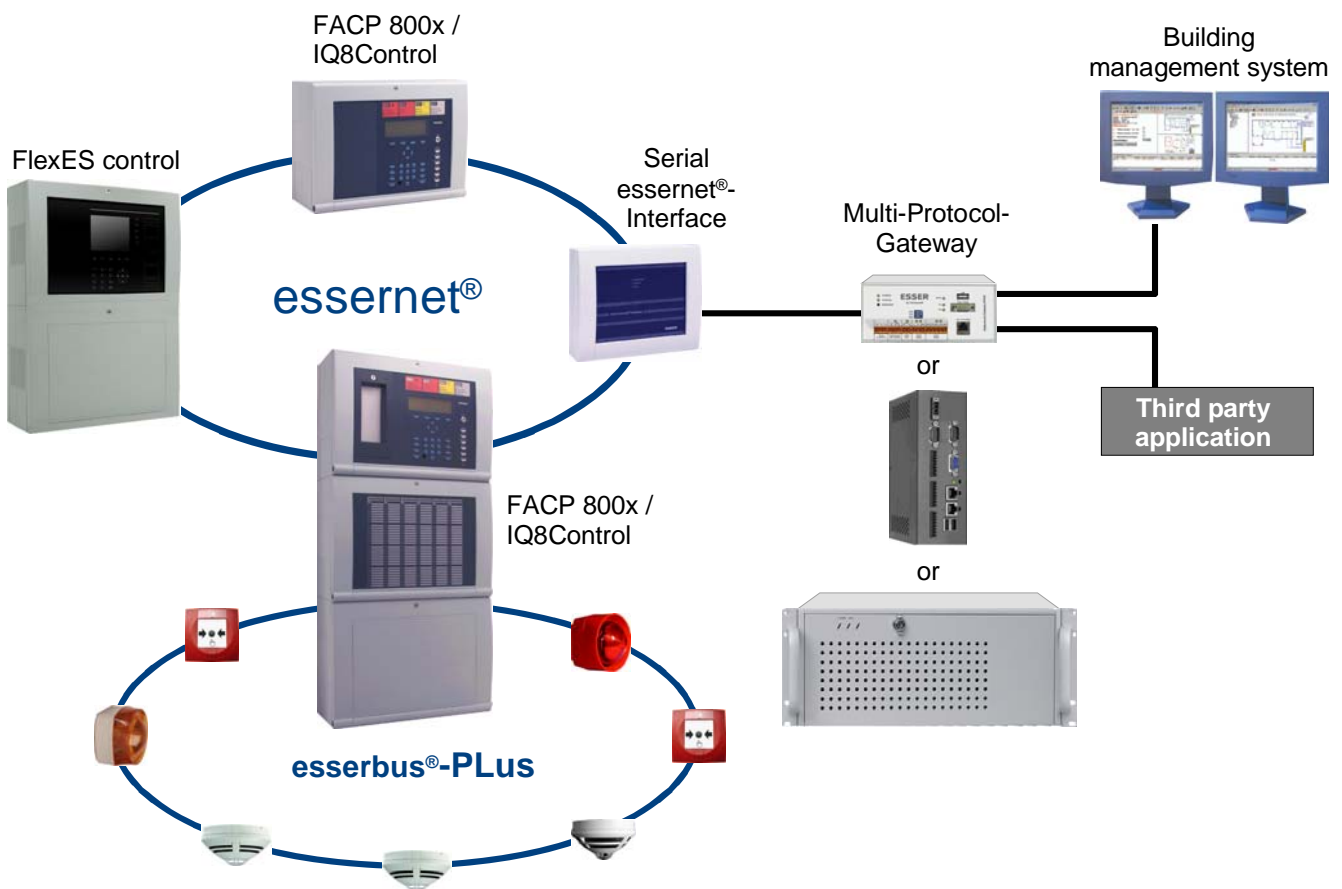

Fig. 1: System structure

The information that should be transferred from one protocol to another is described by the principle of mapping between two data points. A data point refers to a small, distinct unit of information. A typical data point is an analogue actual value (measurement value).

Its attributes are an address that distinguishes it from other data points and a number as value. In order to reactivate the exchange of data from the various protocols with a gateway, relevant attributes of the respective protocol are mapped to abstract data points within the gateway.

To this end, the gateway contains multiple different types of data points that satisfy the typical requirements of the respective protocol.

2 Device Types / Models

2.1 Multiprotocol-Gateway DP500

Part.-No.	Description
785000	Multiprotocol-Gateway DP500 Esser - BACnet Client
785001	Multiprotocol-Gateway DP500 Esser - BACnet Server
785002	Multiprotocol-Gateway DP500 Esser - EIB/Instabus
785003	Multiprotocol-Gateway DP500 Esser - LONTalk
785004	Multiprotocol-Gateway DP500 Esser - Modbus IP
785006	Multiprotocol-Gateway DP500 Esser - OPC Server
785007	Multiprotocol-Gateway DP500 Esser – customized driver incl. hardware
785008	Multiprotocol-Gateway DP500 Esser - customized driver

2.2   Multiprotocol-Gateway DP7500-2

Part.-No.	Description
785018.10	Multiprotocol-Gateway DP7500-2 Esser - BACnet Client
785019.10	Multiprotocol-Gateway DP7500-2 Esser - BACnet Server
785020.10	Multiprotocol-Gateway DP7500-2 Esser - EIB/Instabus
785021.10	Multiprotocol-Gateway DP7500-2 Esser - LONTalk
785022.10	Multiprotocol-Gateway DP7500-2 Esser - Modbus IP
785024.10	Multiprotocol-Gateway DP7500-2 Esser - OPC Server
785025.10	Multiprotocol-Gateway DP7500-2 Esser - customized driver incl. hardware
785026.10	Multiprotocol-Gateway DP7500-2 Esser - customized driver

2.3   Multiprotocol-Gateway DP35000

Part.-No.	Description
785027	Multiprotocol-Gateway DP35000 Esser - BACnet Client
785028	Multiprotocol-Gateway DP35000Esser - BACnet Server
785029	Multiprotocol-Gateway DP35000Esser - EIB/Instabus
785030	Multiprotocol-Gateway DP35000Esser - LONTalk
785031	Multiprotocol-Gateway DP35000Esser - Modbus IP
785033	Multiprotocol-Gateway DP35000Esser - OPC Server
785034	Multiprotocol-Gateway DP35000Esser - customized driver incl. hardware
785035	Multiprotocol-Gateway DP35000Esser - customized driver

3   Standards and Guidelines

The general technical rules must be observed when installing fire alarm systems. Any deviation from those rules is only admissible if the same degree of safety can be ensured with different means. Installations within the European Community are primarily subject to all EU regulations defining the current standards for security systems.

In Germany, systems are considered to be in compliance with the general technical rules or the standards of the EU for security systems if they meet the technical guidelines of the VDE (Verband Deutscher Elektrotechniker, Association of German Electrical Engineers). They may also be considered to be in compliance with the standards of the EU for security systems if they meet the technical guidelines of another comparable institution within the European Community which have been accepted in accordance with directive on low-voltage systems (2006/95/EG). The same must be applied for all applications of additional, product relating guidelines, e.g. EMI-Guideline 2004/108/EG and the Construction Products Directive (CPD) 89/106/EG.

These are examples:

- Standards of the DIN EN 54 "Fire alarm systems", particulary DIN EN 54-2 „Fire alarm control panels" and DIN EN 54-4 „Power supply units".
- Standards of the DIN VDE 0100 issue, particulary DIN EN 0100-410 „Installation of high-voltage sytems with rated voltage up to 1000 V", DIN VDE 100-718, Install low voltage systems – Requirements for sites, rooms and special systems and DIN VDE 0105-100 „Operation of electrical system: General commitments".
- Standards of the DIN EN 62305 or DIN VDE 0185-305 issue, particulary DIN VDE 0185-305-1 „Lightning protection: General standards. DIN VDE 0185-305-2 „Risk-Management", DIN VDE 0185-305-3 „Protection of buildings and persons" and DIN VDE 0185-305-4 „Eletrical and electronic systems in buildings".
- DIN VDE 0701-1 „Maintenance, Modification and Test of electrical devices: General commitments".
- Standards of the DIN VDE 0800 issue, particulary DIN VDE 0800-1 „General commitments, Requirements and Tests for system security", DIN VDE 0800-1 „Communication systems, Earthing and potential compensation", DIN VDE 0800-174-2 .Information systems – design and installation of communication cabling in buildings".
- DIN VDE 0815 „Cables for communication and information systems".
- Standards of the DIN VDE 0833 issue Hazard alarm systems for Fire, Intruder and Hold-up, particulary DIN VDE 0833-1 „General commitments", DIN VDE 0833-2 „Commitments for fire alarm systems (FAS)", DIN VDE 0833-3 „Commitments for Intruder and Hold-up systems" and DIN VDE 0833-4 „Commitments for Voice alarm systems within fire protection".
- Standards of the DIN VDE 0845 issue, particulary DIN VDE 0845-1 „Protection of Communication systems against Lightning, electrostatic charge and overvoltage from high-voltage systems; Actions to avoid over-voltage".
- DIN 14675 Fire alarm systems – mounting and operation.

These technical guidelines must be observed within the European Community. The VDE guidelines must be observed within Germany. The requirements of the local fire departments and competent authorities must also be complied with. In other countries (e.g. U.S.A.: NFPA and UL requirements), the relevant national standards, guidelines and legislation must be observed.

In addition to the above, the guidelines of the German VdS Schadenverhütung GmbH (VdS) may apply for systems installed in Germany.

- VdS 2046 Safety rules for electrical power systems with voltages up to 1000 V.
- VdS 2015 Electrical appliances and systems – rules for damage prevention.
- VdS 2095 Design and installation of fire alarm systems.
- VdS 2833 Overvoltage protection measures for Hazard Alarm Systems.
- and observe national and local building law requirements and regulations (building regulations).

Danger – Electrical shock !
Remove all power from the device before carrying out any installation work!

ESD protection
While handling electronic assemblies, the necessary precautions against electrostatic discharge must be taken.

Commissioning
A complete system check must be carried out after commissioning and for each modification of the customer data programming!

4 Multiprotocol Gateway DP500

The Multiprotocol Gateway DP500 is suitable for use in buildings in which the total number of linked object states to be transmitted does not exceed 1000. Thanks to its small dimensions, the integrated top hat rail mounting can be used to install the gateway in suitable housings, such as equipment cabinets or in fire alarm control panels.
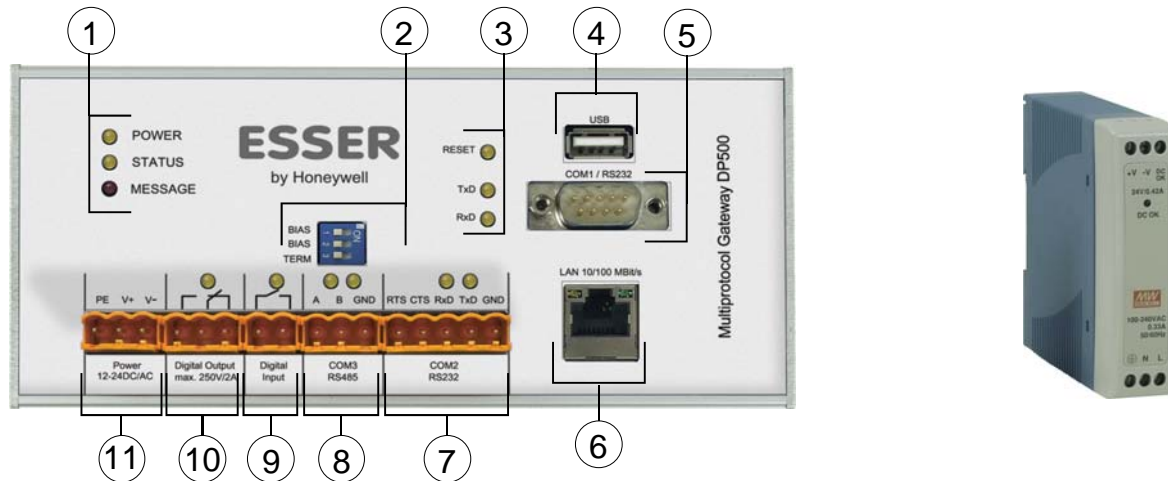

Fig. 2: DP 500 – Locations of the indicators and connections (front view) and associated mains adapter

①	LED status indicators
②	DIP switches (do not change the factory configuration)
③	2 yellow LED for indicating the interface communication "Receive" (RxD) and "Transmit" (TxD), and for indicating the reset function
④	USB port (Not used for the gateway function in connection with ESSER fire detection technology)
⑤	Serial interface COM 1, 9-pin D-SUB (standard setting ➔ ESSER EDP protocol)
⑥	Network connection socket RJ45

⑦	Interface COM 2 (RS485) with status LED	
⑧	Interface COM 3 (RS232) with status LED	
⑨	Digital control input	Screw terminals, removable
⑩	Relay contact, potential-free changeover contact, max. switching capacity 250 V AC / 2 A	
⑪	Power supply 12 V – 26 V DC via associated mains adapter	

LED status indicators

The LED status indicators provide visual indication of the current device status.

Alternatively, the individual LED can be controlled in the programming via a UGWC data point in order to directly indicate individual events.

POWER

STATUS

MESSAGE

LED power (green)

Glowing green	:	Device is ready for use
Off	:	Device is switched off / operating voltage absent

LED status (red / green)

Flashing green	:	NORMAL OPERATION
Flashing green/red	:	WARNING The communication drivers have been started, but one of the drivers is in an error state (e.g. other terminal not found).
Flashing red	:	FAULT 1 The communication drivers have been started, but they are all in an error state.
Glowing red	:	FAULT 2 At least one of the communication drivers could not be started. The drivers are restarted internally, the LED continues to glow if the driver does not function properly for at least 2 minutes following the restart.

LED message (red)

Lights up	:	The meaning of the LED (ON/OFF) can be configured specifically to the building via "virtual data points". For this purpose, the data points can be used like physical data points.
Off	:	Standard

DIP switch (factory configuration)

This switch configuration is preset for the function of the Multiprotocol Gateway. Do not change the factory setting, or do so only after consulting with the Technical Sales department.
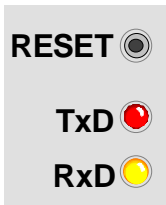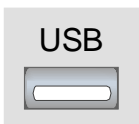
RESET ➔ Restart the Multiprotocol Gateway

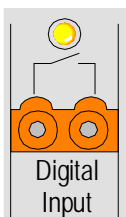The reset button can be pressed using the supplied pin.

TxD   Transmit

The red LED flashes to indicate the data communication.

RxD   Receive

The yellow LED flashes to indicate the data communication.

USB port
(Not used for the gateway function in connection with ESSER fire detection technology)

Digital input for connecting a potential-free switching contact for programmable control functions, such as controlling the internal relay output.

Depending on the programming, the input is triggered by a status change (open/closed) of the switching contact.
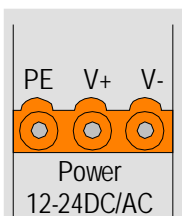
LED glows ➔ to indicate the activated input
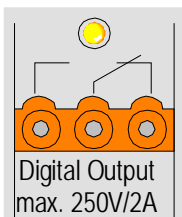
Relay contact for freely selectable switching functions.

- Potential-free changeover contact
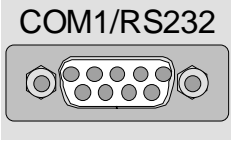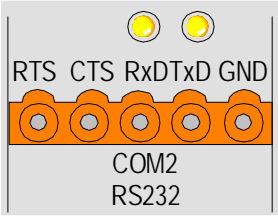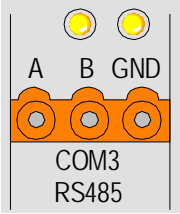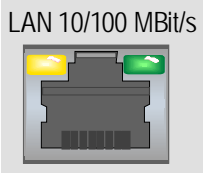- Max. switching capacity 250V AC / 2A

The relay contact can be assigned various switching functions as well as inverse operation (triggered in resting state) in the gateway configuration.

Connection of the 12-24 V DC power supply from the associated mains adapter.

4.1 Interfaces (DP500)

The COM1 interface has been preconfigured at the factory to the Esser data protocol (EDP) for connection to the serial essernet® interface (SEI). Depending on the connected device, one of the COM 2, COM 3 interfaces or the Ethernet interface is used for data communication.

COM1/RS232	Serial RS232 interface 9-pin, D-SUB fully assigned. This interface has been preconfigured at the factory to the EDP protocol for connection to the serial essernet® interface (SEI).
RTS CTS RxDTxD GND COM2 RS232	Serial RS232 interface COM2 to the building services management system device. Assignment: Rx, Tx, GND, RTS, CTS Max. line length 15 m!
A B GND COM3 RS485	Serial RS485 interface COM3 to the building services management system device. The terminating resistance of the RS485 interface is activated internally in the device. Max. line length 1,000 m!
LAN 10/100 MBit/s	Ethernet interface • Connection of the 10/100 MBit/s network cable • RJ45 socket to the building services management system device.

Part No.	Protocol option	Standard connection at the device interface	Alternative [1]
785000	Esser ➜ BACnet Client	COM 1 ➜ LAN	BACnet eth,RS- 485, MS/TP
785001	Esser ➜ BACnet Server	COM 1 ➜ LAN	---
785002	Esser ➜ EIB/Instabus	COM 1 ➜ COM2	Special cable to bus coupler
785003	Esser ➜ LONTalk	COM 1 ➜ USB	USB-LON adapter
785004	Esser ➜ Modbus IP	COM 1 ➜ LAN	---
785006	Esser ➜ OPC Server	COM 1 ➜ LAN + UGW OPC Server SW to PC	---
785007	Esser ➜ customised driver incl. HW*	COM 1 ➜	Profibus-DP not currently available in this version
785008	Esser ➜ customised driver	COM 1 ➜ COM2 / COM3	Modbus serial RS232 / RS485

[1] *Depending on the application, additional hardware and/or software may be required.*

For connection examples, see section "Initial Start-Up".

5   Multiprotocol Gateway DP7500-2

The Multiprotocol Gateway DP7500-2 is suitable for use in medium-sized buildings. The device is ready for rear-wall mounting and can also be integrated into existing housings / equipment cabinets.

Configuration takes place specifically to the building. A maximum of 15000 essernet$^{®}$ object states can be connected to other standard software protocols.
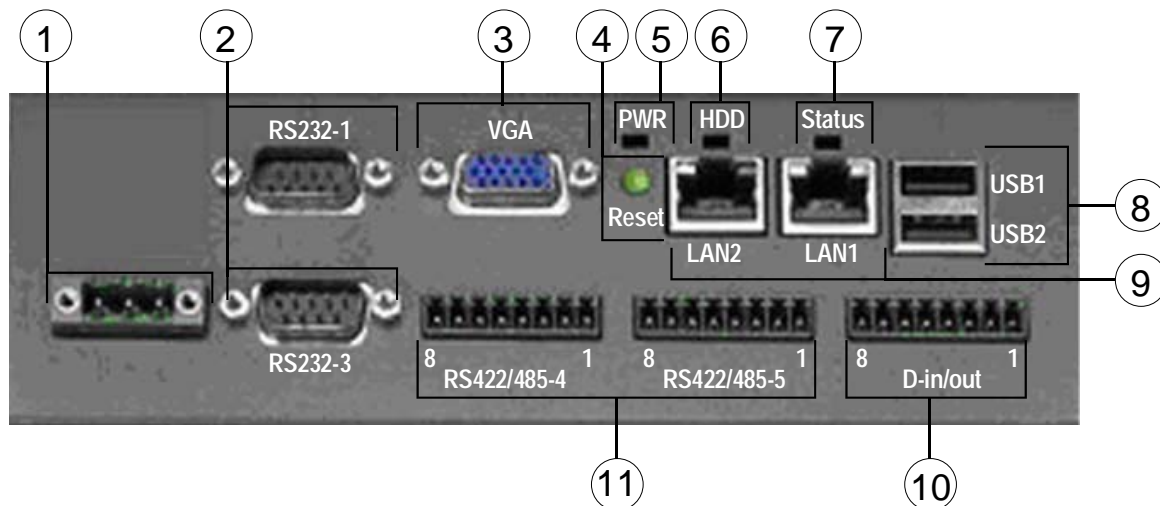

Fig. 3: Locations of the indicators / operating elements and connections on the DP7500-2

①	PWR / GND / PE ➜ Connection terminals of the 10-30 V DC power supply via an associated mains adapter
②	RS232-1 ➜ 9-pin D-SUB interface RS232-3 ➜ 9-pin D-SUB interface
③	VGA ➜ Monitor connection (Not used for the gateway function in connection with ESSER fire detection technology)
④	Reset button
⑤	PWR-LED ➜ Device on
⑥	HDD-LED ➜ Hard drive access
⑦	Status LED ➜ Status indicator
⑧	USB1 / USB2 port The USB connection is used when the EDP protocol should be converted to LON!
⑨	LAN 1 / LAN 2 ➜ Network ports
⑩	D-IN / D-OUT ➜ Digital inputs / outputs
⑪	4-RS422/485 / 5-RS422/485 ➜ Interfaces
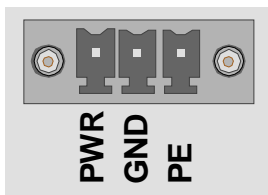
Power supply

1 V+ 9-30VDC
2 V- GND
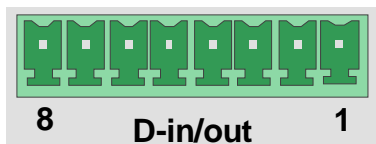
Digital inputs / outputs

1 ➜ GND for digital outputs (COM-GND)
2 ➜ GND for digital inputs (COMM0)
3 ➜ Digital input 1 (max. 50 VDC)
4 ➜ Digital input 2 (max. 50 VDC)
5 ➜ Digital input 3 (max. 50 VDC)
6 ➜ V+ for digital output (max. 40 V) (COM-LOOP)
7 ➜ Digital output 1 (max. 40 VDC, 0.5A)
8 ➜ Digital output 2 (max. 40 VDC, 0.5A)

VGA connection

Connection for monitors with VGA signal

Reset button

Button pressed:	LED lit steady.
<1 second:	No action, gateway continues to operate normally
>1 and <5 seconds:	LED blinks in a 1000 ms rhythm Release button, reboot
>5 and <10 seconds:	LED blinks in a 500 ms rhythm Release button, IP address is temporarily set to default (192.168.0.1)
>10 and <15 seconds:	LED blinks in a 200 ms rhythm Release button, start the DHCP server
>15 seconds:	LED blinks in a 100 ms rhythm Release button, IP configuration is set to factory default and reboot.

Pressing the reset button

Gateway restart	Reset with default IP address	Restart with activation of the DHCP server	Resetting to factory defaults and reboot
0-4 seconds	5-9 seconds	10-15 seconds	More than 15 seconds

PWR	**PWR-LED (green)**	
	Lit	➔ Device is ready for use
	Off	➔ Device is switched off / operating voltage absent

HDD	**HDD-LED (green)**
	Lit ➔ Hard drive access
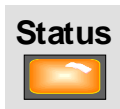
Status	**Status LED colour (yellow)**	
	Normal state:	LED blinks in a 2 s rhythm
	Fatal Error:	LED lit steady
	Error:	LED blinks in a 1 s rhythm
	DHCP server activated:	LED blinks (1 s on, 0.5 s off,...)
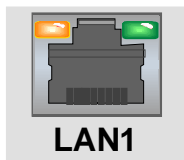
LAN1	**RJ45 10/100 Mbit Ethernet**
	Link indicates a LAN connection
	10/100 indicates the connection speed
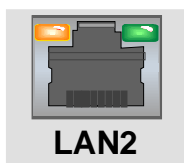
LAN2	**RJ45 10/100 Mbit Ethernet**
	Link indicates a LAN connection
	10/100 indicates the connection speed

USB1	**USB1 and network ports**
	USB 2.0 for USB – device e.g. USB–LON adapter

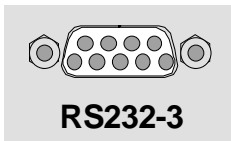|	
USB2	**USB2 and network ports**
	USB 2.0 for USB – device e.g. USB–LON adapter

5.1 Interfaces (DP7500-2)
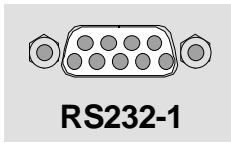
RS232-1

RS232-1 interface

1 → DCD
2 → RXD input
3 → TXD output
4 → DTR
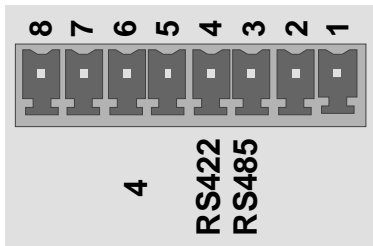5 → GND
6 → DSR
7 → RTS output
8 → CTS input
9 → RI
Baud rate 600,9600,19200,38400,57600,115200 baud

RS232-3

RS232-3 interface

1 → DCD
2 → RXD input
3 → TXD output
4 → DTR
5 → GND
6 → DSR
7 → RTS output
8 → CTS input
9 → RI
Baud rate 600,9600,19200,38400,57600,76800,115200 baud

4 RS422 RS485
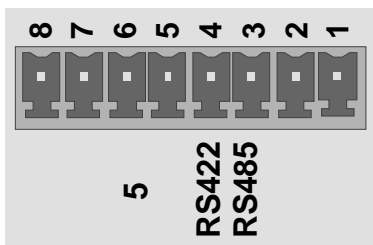
RS485-4

1 → 100 ohm termination
2 → TX+ non-inverted output
3 → TX- inverted output
4 → +5V
5 → GND
6 → RX- inverted input
7 → RX+ non-inverted input
8 → 100 ohm termination
(Bridge contacts 1-2 and 7-8 for termination)
The end of every segment in MS/TP networks must be terminated. Only use the termination if the **UGW//maxi** is located at the end of a segment!
Baud rate 600,9600,19200,38400,57600,76800,115200 baud

5 RS422 RS485

RS485-5

1 → 100 ohm termination
2 → TX+ non-inverted output
3 → TX- inverted output
4 → +5V
5 → GND
6 → RX- inverted input
7 → RX+ non-inverted input
8 → 100 ohm termination
(Bridge contacts 1-2 and 7-8 for termination)
The end of every segment in MS/TP networks must be terminated. Only use the termination if the **UGW//maxi** is located at the end of a segment!
Baud rate 600,9600,19200,38400,57600,76800,115200 baud

Art.-Nr.	Protokoll Option	Standardanschluss an Geräteschnittstelle	Alternativ [1]
785018.10	Esser ➜ BACnet Client	RS232-1 ➜ LAN1 A 10/100 MBit (factory-configured)	BACnet eth, RS- 485, MS/TP
785019.10	Esser ➜ BACnet Server	RS232-1 ➜ LAN1	---
785020.10	Esser ➜ EIB/Instabus	RS232-1 ➜ RS232-3	Serial 1:1 cable to bus coupler
785021.10	Esser ➜ LONTalk	RS232-1 ➜ USB (via one of the two ports of the device)	---
785022.10	Esser ➜ Modbus IP	RS232-1 ➜ LAN1	---
785024.10	Esser ➜ OPC Server	RS232-1 ➜ LAN1 + UGW OPC-Server SW to PC	---
785025.10	Esser ➜ customised driver incl. hardware	RS232-1 ➜ X1[2]	Profibus-DP
785026.10	Esser ➜ customised driver	RS232-1 ➜ RS232-3, or RS232-1 ➜ RS422/485-4	Modbus serial RS232 / RS485

[1] *Depending on the application, additional hardware and/or software may be required.*

[2] *Additional interface next to the power socket (only used when necessary)*

For connection examples, see section "Initial Start-Up".

6 Multiprotocol Gateway DP35000

The Multiprotocol Gateway DP35000 is suitable for use in large buildings. The device (4 HU) is ready for rack installation and can be integrated into various equipment cabinets.

Configuration takes place specifically to the building. esabnet[®] building states can be connected to a maximum of 70000 other standard software protocols.
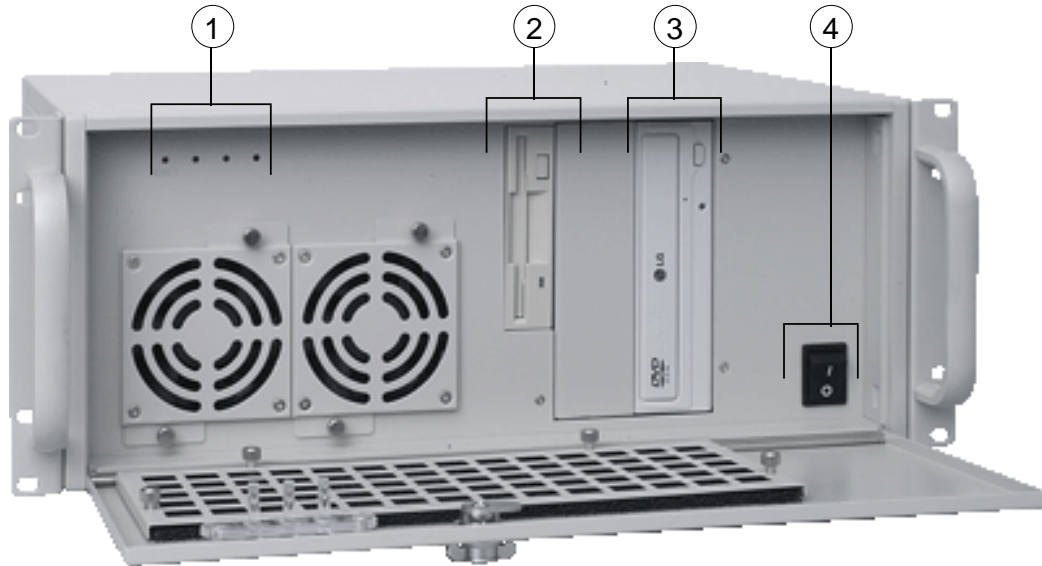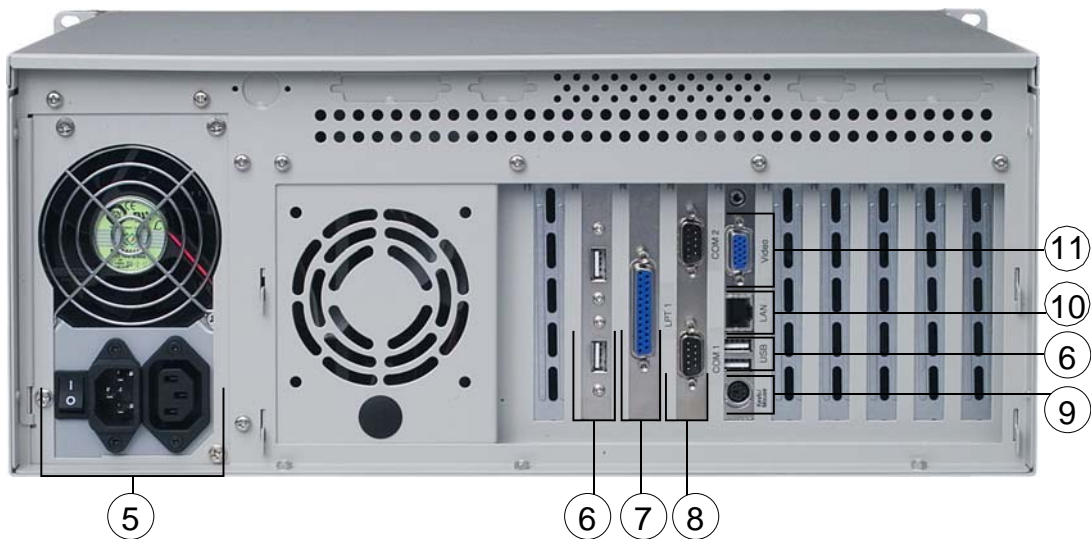

Fig. 4: Front side of the DP35000

Fig. 5: Rear side of the DP35000

①	Reset button and LED status indicators
②	3.5-inch diskette drive
③	CD-ROM drive
④	On/Off switch (tumbler switch) for the power supply to the device
⑤	Mains switch (on/off) for the 230 VAC power supply Connection socket for the 230 VAC mains cable (IEC power socket) Connector plug to the 230 VAC power supply for an additional device (e.g. PC monitor)
⑥	USB ports (The USB port is not used for the gateway function in connection with ESSER fire detection technology).
⑦	Printer interface LPT1 (parallel) for connection of a report printer (Not used for the gateway function in connection with ESSER fire detection technology)
⑧	RS232 interfaces COM1 ➔ Serial RS232 interface, preconfigured at the factory to the ESSER EDP protocol COM2 ➔ Serial RS232 interface COM2 to the building services management system
⑨	PS2 port for a keyboard or mouse / input device (Not used for the gateway function in connection with ESSER fire detection technology)
⑩	Ethernet interface 10/100 Mbit/s, RJ-45 connection
⑪	VGA monitor port (Not used for the gateway function in connection with ESSER fire detection technology)

**Additional interfaces / connections**

If necessary, the Multiprotocol Gateway DP35000 can be equipped with additional interface cards.

> The Multiprotocol Gateway DP35000 is configured at the factory ready for operation and is delivered with a preconfigured operating system.
>
> The "PC connections", such as keyboard, monitor, etc., are not used for the gateway function in connection with ESSER fire detection technology.

LED status indicators
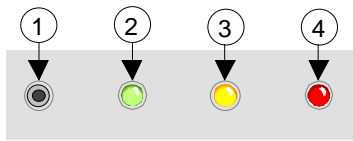
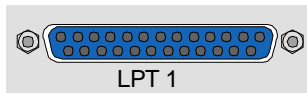① **Reset button** ➜ Hardware restart

② **LED power (green)**

Glowing green	:	Device is ready for use
Off	:	Device is switched off / operating voltage absent

③ **LED HDD (yellow)**

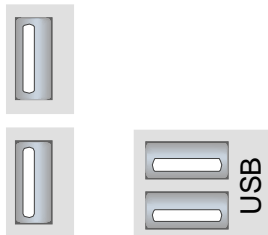|		
Glowing green	:	Hard drive access

④ **LED (red)** ➜ No function

Printer interface LPT1 (parallel) for connection of a report printer (not used for the gateway function in connection with ESSER fire detection technology)

LPT 1

PS2 port for a keyboard or mouse / input device
(Not used for the gateway function in connection with ESSER fire detection technology)
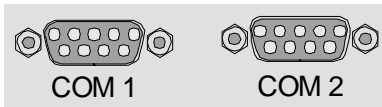
Keyb/Mouse

4 x USB ports
(The USB port is not used for the gateway function in connection with ESSER fire detection technology)

USB

VGA monitor port
(Not used for the gateway function in connection with ESSER fire detection technology)
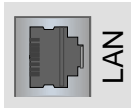
Video

6.1 Interfaces (DP35000)

RS232 interfaces

COM1 ➜ Serial RS232 interface, preconfigured at the factory to the ESSER EDP protocol

COM2 ➜ Serial RS232 interface COM2 to the building services management system

Ethernet interface 10/100 Mbit/s, RJ-45 connection

Part No.	Protocol option	Standard connection to device interface	Alternative [1]
785027	Esser ➜ BACnet Client	COM 1 ➜ LAN	BACnet eth,RS- 485, MS/TP
785028	Esser ➜ BACnet Server	COM 1 ➜ LAN	---
785029	Esser ➜ EIB/Instabus	COM 1 ➜ COM2	Serial 1:1 cable to bus coupler
785030	Esser ➜ LONTalk	COM 1 ➜ LON	Interface with built-in add-on card
785031	Esser ➜ Modbus IP	COM 1 ➜ LAN	---
785033	Esser ➜ OPC Server	COM 1 ➜ LAN + UGW OPC Server SW to PC	---
785034	Esser ➜ customised driver incl. hardware	COM 1 ➜	Profibus-DP not currently available in this version
785035	Esser ➜ customised driver	COM 1 ➜ COM2	Modbus serial RS232 / RS485 (RS485 incl. converter)

[1] *Depending on the application, additional hardware and/or software may be required.*
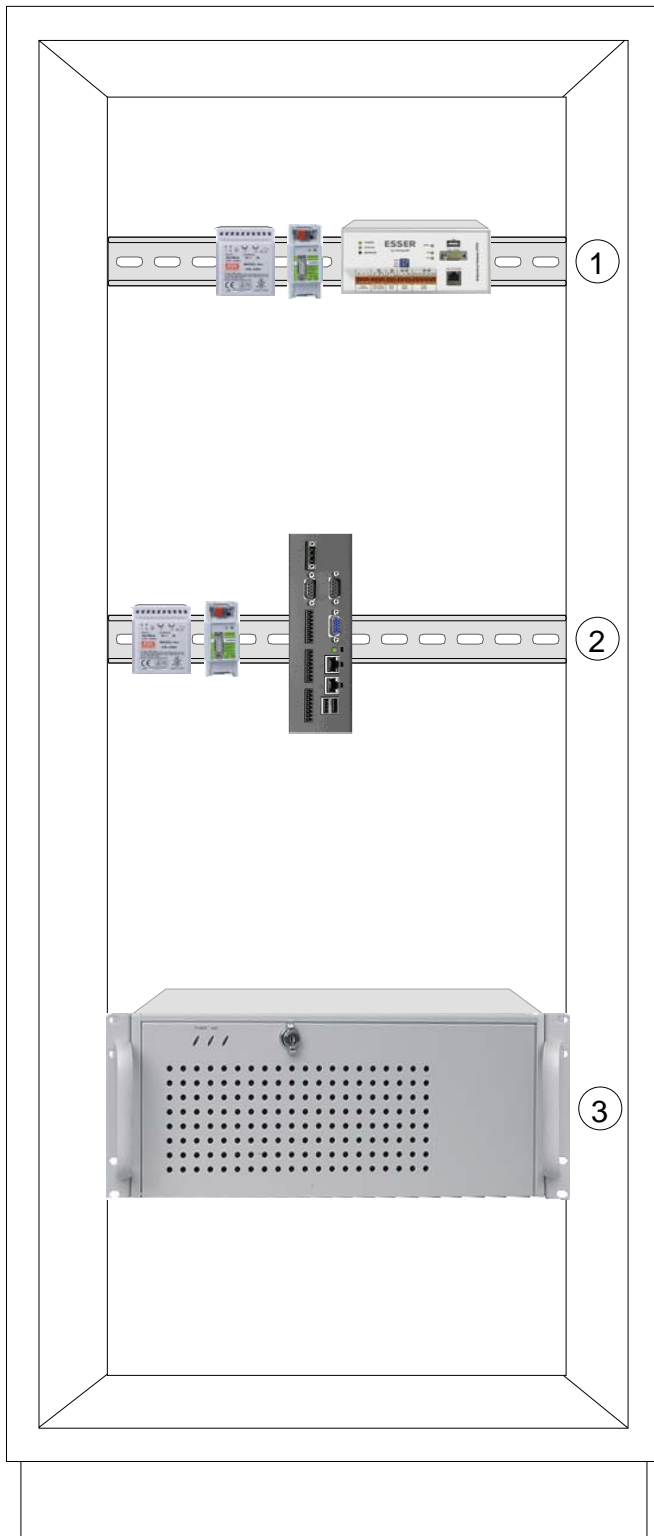
For connection examples, see section "Initial Start-Up".

7   Mounting

All gateway types described in this documentation are suitable for mounting in standard equipment cabinets.

Equipment cabinet

Example DP500

With additional hardware (protocol translator) and power supply. Alternatively, it can also be installed into a suitable fire detection technology housing.
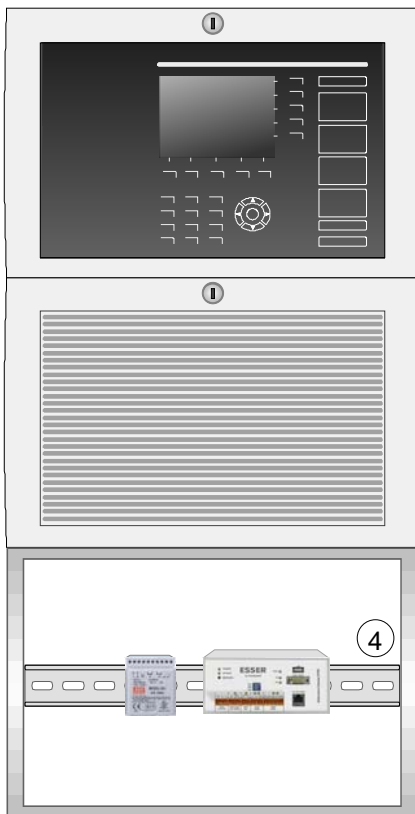
Example DP7500-2

With additional hardware (e.g. EIB Instabus protocol translator) and power supply. Mounted with appropriate screws to the rear wall of the equipment cabinet.

Example DP35000 (installation dimensions 4 R)

Modular system for rack mounting.

Fig. 6: Installation of a Multiprotocol Gateway in an equipment cabinet

Installation in an additional housing of the fire alarm control panels 800x, IQ8Control or FlexES control.

Example type DP500

With additional hardware (protocol translator) and power supply.

Mounting to a hat rail in the additional housing of the fire alarm control panel (FACP).

Fig. 7: Example of gateway installation in a fire alarm control panel housing

Due to the dimensions and weight of the gateway, only DP500 are suitable for installation in the fire alarm control panel (FACP) housing.

8   Initial Start-Up

Gateway start process

When starting the gateway, the STATUS_LED will indicate the following states:

- When starting the system, the LED is **off** (for system-specific reasons).

- During initialisation, the LED flashes **briefly yellow** for each individual initialisation step (e.g. driver start).

- After successful system initialisation, the LED is **steady yellow**.

- After the drivers have been initialised and all distant terminals have been found, the gateway enters into the normal state, and the LED is **flashing green**.

8.1   Direct Connection

Fig. 8

8.2   Connection Via Multiple-Port Ethernet Switch

Fig. 9

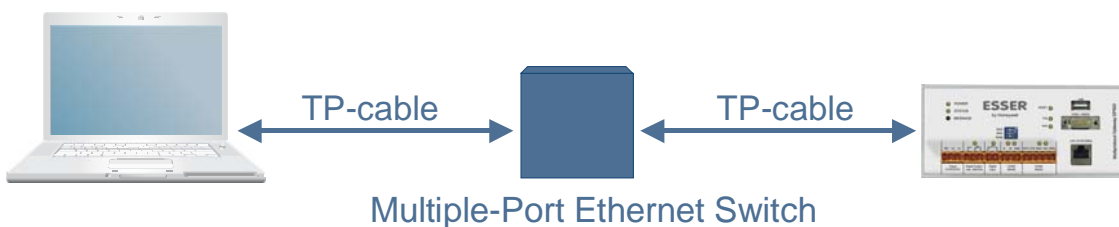## 8.3   Network Connection Check

The connection can be tested using the Windows command prompt and entering the command >ping<.

If no response is received, the error lies in the cabling, the network configuration of the PC or the gateway's device configuration.

Fig. 10

8.4   Connecting to the Web Server

To access the internal Web server, an IP connection must be established between the notebook and the gateway.

The Web server offers a Web-based configuration interface.

Crossover cable

Fig. 11

If the notebook is configured as DHCP client (default setting), the gateway can be used for providing an IP address. Connect the crossover network cable to the notebook, an IP address will be assigned automatically. Use the port ① LAN 1 on the gateway.

Using a manual IP address

To use a manual IP address, enter the following settings on the notebook PC:

IP address: 169.254.0.2 (or higher)

Subnet mask: 255.255.0.0

Standard gateway: No entry

Activating the DHCP server (optional)

DHCP=**D**ynamic **H**ost **C**onfiguration **P**rotocol automatically provides IP addresses to clients when necessary. If the notebook is configured as DHCP client (default setting), the DHCP server of the gateway can be used for providing an IP address.

To activate the built-in DHCP server, press the reset button for longer than 10 seconds but no more than 15 seconds. The status LED blinks in a 200 ms rhythm once the DHCP server is activated.

While the DHCP server is active, the default IP address is configured. (169.254.0.1)

8.5   Establishing a Connection to the Gateway

This test can only be performed if there is an Ethernet network connection between the service PC and the Multiprotocol Gateway. Open the login dialog by entering the factory-configured IP address of the gateway: 169.254.0.1.
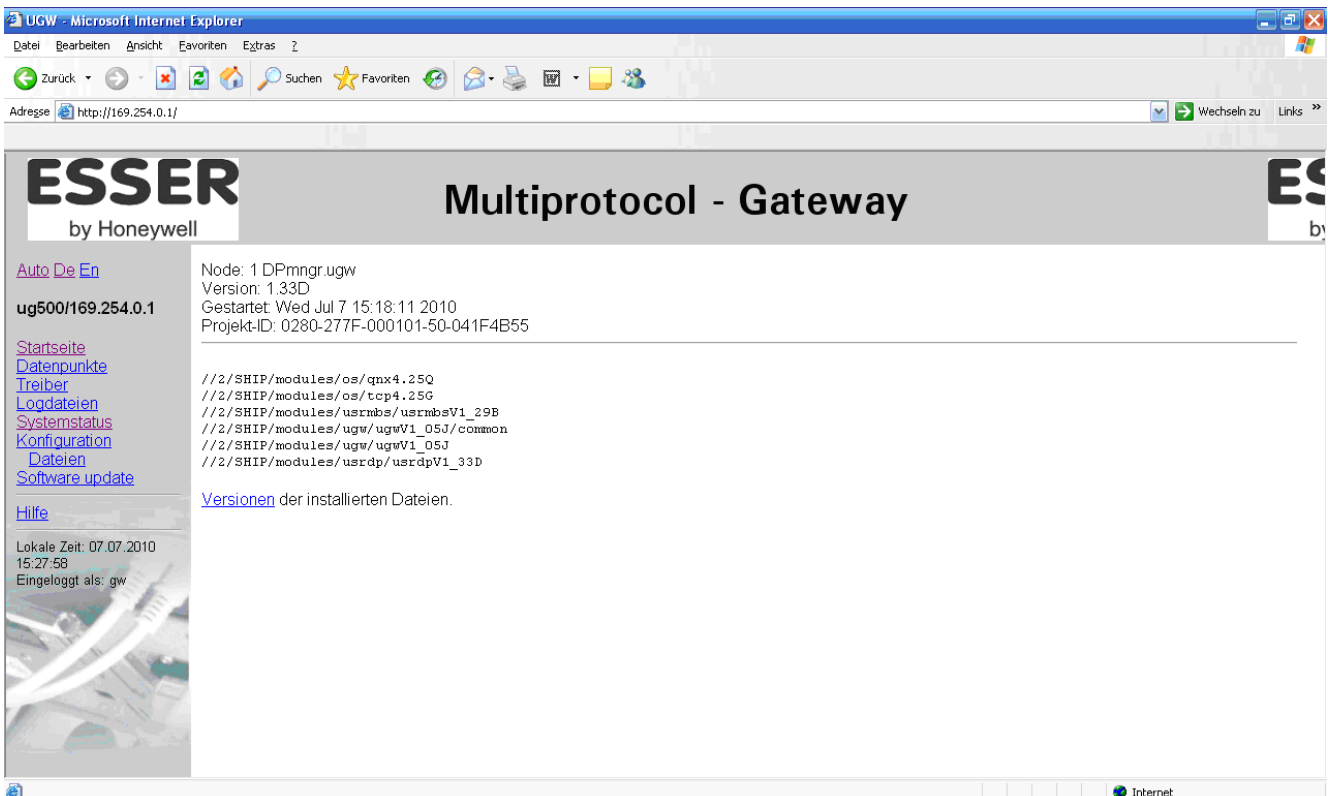

Factory setting

Username: gw
Password: GATEWAY

It is recommended that the username and password be changed no later than upon commissioning of the system.

Record this information and store it in a safe place.

After successful login, the start page of the configuration menu of the Multiprotocol Gateway appears.

9 Connection to the RS232/V.24 Interface Module (Part No. 772386)

The Multiprotocol Gateway is connected to the RS232/V.24 interface of the serial essernet® interface (SEI). This is only possible where the (optional) RS232/V.24 interface module in the SEI is available.
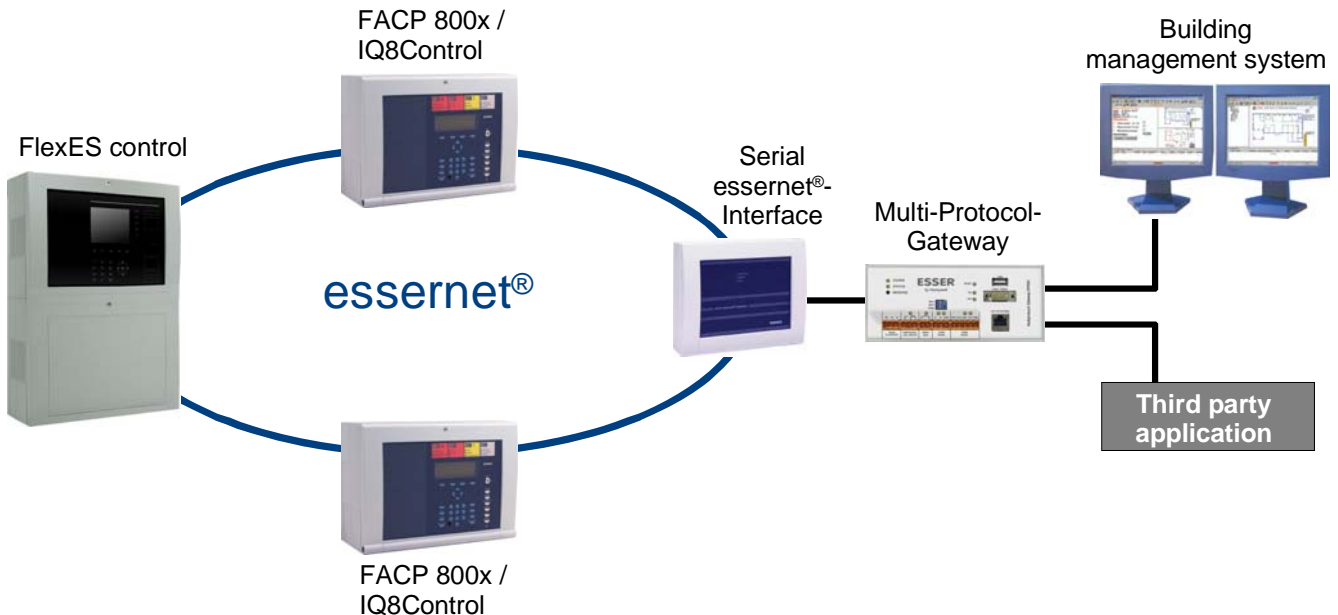

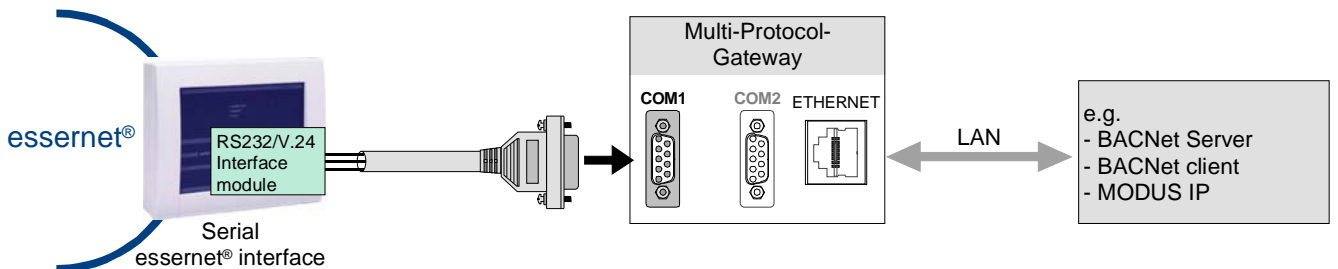*Fig. 12: Connection of the SEI with connected gateway to the essernet® network (overview)*

Fig. 13: Example of connecting devices via the network connection (LAN)
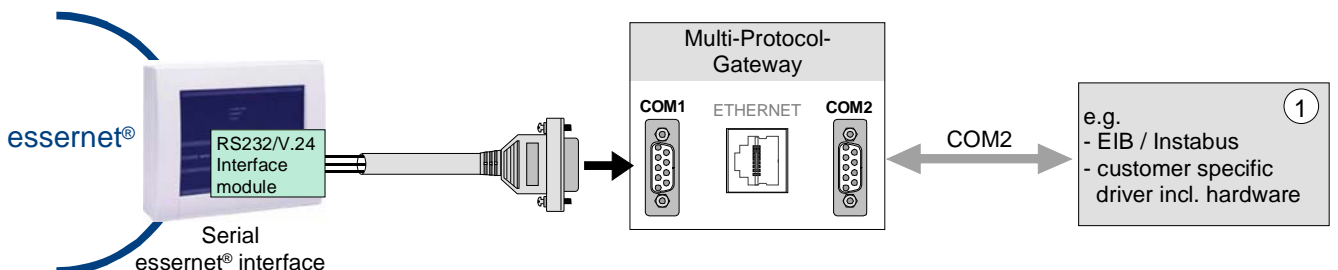

Fig. 14: Example of connecting devices via the serial interface COM2

① Depending on the application, additional hardware and/or software may be required.

If the event of a connection setup that differs from the standard application, please contact the Technical Sales department.

Circuit board of the serial essernet® interface (SEI) with built-in RS232/V.24 interface module.
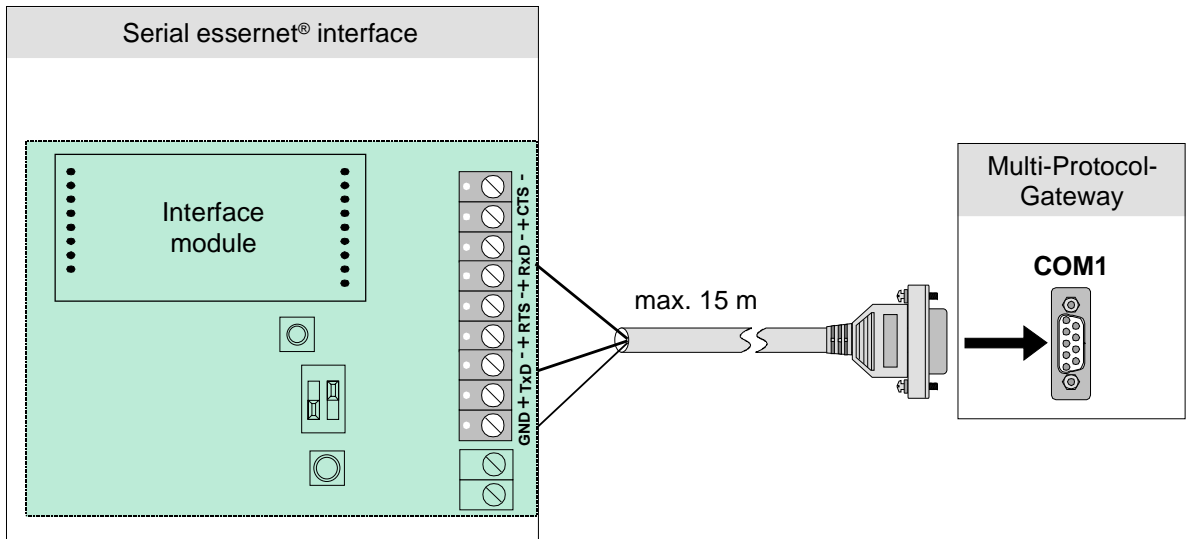

Fig. 15: Connection diagram of the Gateway COM1 interface connected to the SEI

Interface assignment of the serial essernet® interface (SEI)

Service PC		SEI connection terminals	
25-pin	**9-pin**	**Signal**	**Description**
---	05	GND	GND / ground
03	02	TxD+	Transmit data (to the SEI)
02	03	RxD+	Receive data (on the SEI)
07	---	GND	GND / ground

The max. permissible line length between the external device and the interface is 15 m.

For additional information on the serial essernet® interface (SEI), see the documentation (Part No. 798819).

10   Specifications

MPG DP1500

Operating voltage	:	12 - 26 V DC / AC
Power consumption	:	8 W
Weight	:	Approx. 400 g
Mounting	:	DIN-Rail mount
Dimensions (W x H x D)	:	168 x 33 x 76 mm

Power supply unit

Rated voltage	:	1100 - 240 V AC
Rated frequency	:	47-63 Hz
Output voltage	:	24 V DC
Output currency	:	2,5 A
Output power	:	60 W
Weight	:	approx. 0,6 kg
Mounting	:	DIN-Rail mount
Dimensions (W x H x D)	:	78 x 93 x 67 mm

MPG DP7500-2

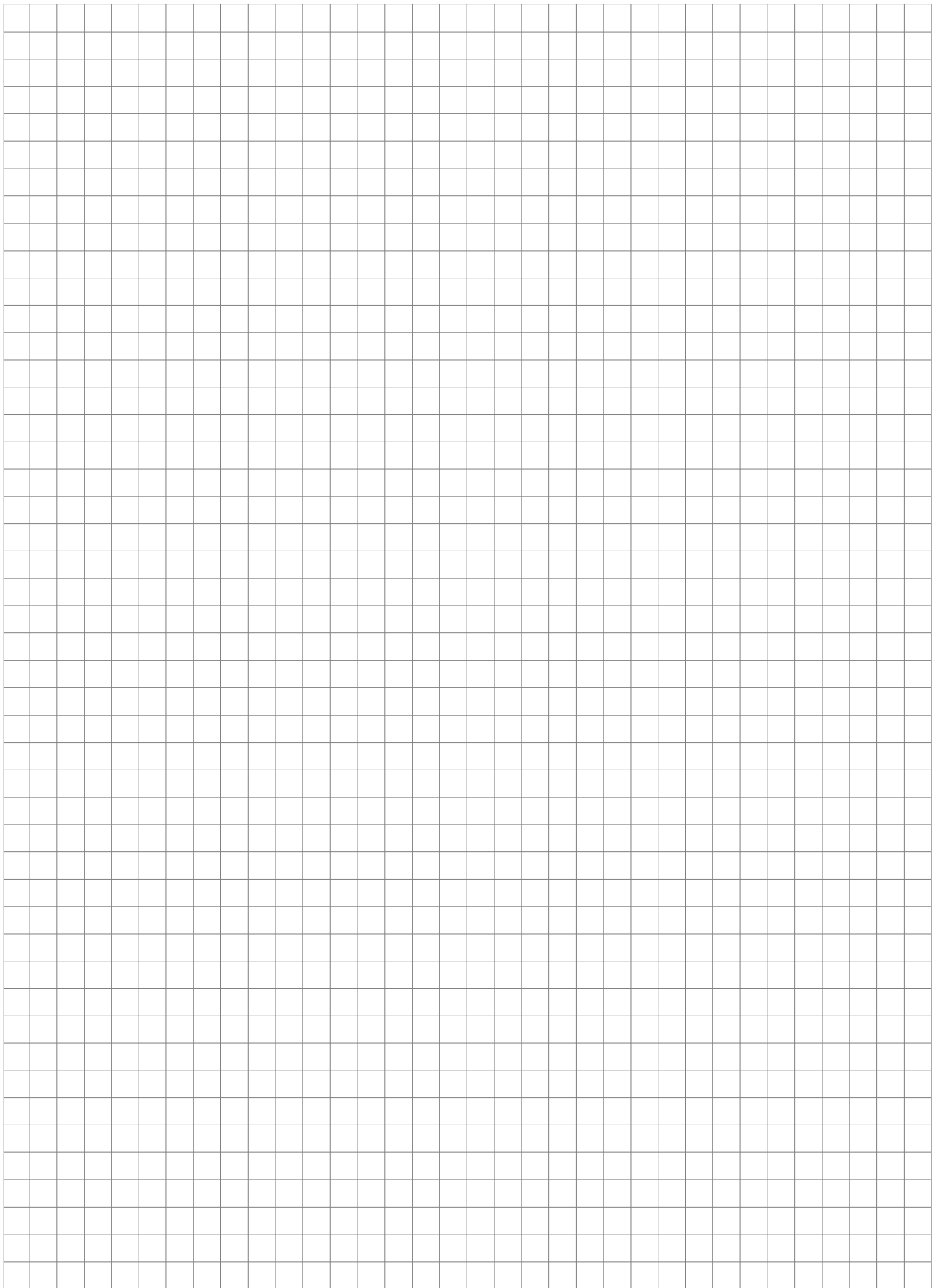|	
Operating voltage	10-30 V DC
Power consumption	40 W
Cooling	passive
Ambient temperature	0 °C to 45 °C
rel. humidity	20 to 80 % rel. humidity, non-condensing
Weight	Approx. 350 g
Mounting	DIN-Rail mount
Dimensions (W x H x D)	195 x 60 x 130 mm

Power supply unit

Rated voltage	100-240 V AC
Rated frequency	47-63 Hz
Output voltage	24 V DC
Output currency	2,5 A
Output power	60 W
Weight	approx. 0,6 kg
Mounting	DIN-Rail mount
Dimensions (W x H x D)	78 x 93 x 67 mm

MPG DP35000

Operating voltage	:	230 V AC
Power consumption	:	50-60 Hz
Extension slot	:	optional ISA or PCI-card
Ambient temperature	:	0 °C to 45 °C
rel. humidity	:	20 to 80 % rel. humidity, non-condensing
Cooling	:	active
Indicators	:	Power-LED and Status-LED
Weight	:	approx. 13 kg
Mounting	:	Rack mounting kit
Dimensions (W x H x D)	:	482 x 176 x 280 mm

Notes