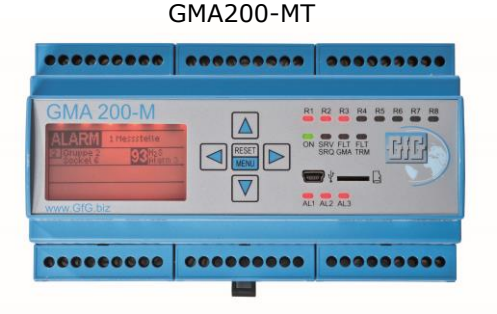
Annex of Instruction Manual

GMA200-MT/-MW

Configuration instruction for Fieldbus-Gateways

GMA200-MT



GMA200-MW

Ethernet-Gateway

Profibus-Gateway

Profinet-Gateway

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1. General Information

In order to connect one or several GMA200 (abbreviated to GMA) measuring modules to an Ethernet network or to a Profibus, an appropriate Fieldbus gateway should be used as a coupling module between the GMA bus and the Fieldbus (see subsequent table). Alongside the adaptation of the various hardware interfaces, the task of the gateway is also to perform the conversion between the Modbus protocol and the respective Fieldbus protocol.

Fieldbus	Protocol	Gateway
Ethernet	Modbus-TCP	HD67507
Profibus	DPV1	UNIGATE CL-ProfibusDP
Profinet	IO	UNIGATE CL-PN (Profinet)

For connecting one GMA to an Ethernet network and a Profibus simultaneously, an Ethernet-Gateway (HD67507; see upper table), which serves as coupler module between the GMA-Bus and the Ethernet network, is needed on the one hand. On the other hand there is a need for a further Fieldbus gateway, which is used for the connection of the Profibus to the Ethernet network (see following table).

Fieldbus	Protocol	Gateway
Profibus / Ethernet	Profibus-DPV1 / Modbus-TCP	UNIGATE CX-ModTCP-PBDPV1

For this purpose, the Fieldbus gateways should be configured in an application-specific manner. In doing so, the configuration is performed with the aid of a respective piece of software on the PC via an RS232 connection to the gateway. This document provides a step-by-step description of the configuration procedure for all types of gateways.

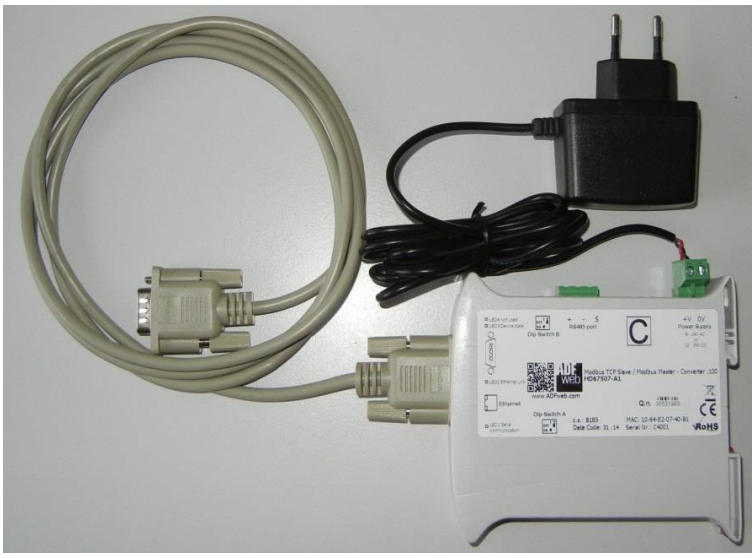
2. Ethernet-Gateway

The Ethernet-Gateway can be configured either via the RS232-connection or directly via Ethernet-connection in a network. Then latter assumes that a fitting IP-address for the network and a subnet screen are configured already.

2.1 PC Connection

The following components are required in order to perform the configuration:

- PC (e.g. laptop)
- Ethernet-Gateway
- Power supply unit (8…35VDC/4W@24V)
- RS232 null-modem-cable



The gateway should be connected to the RS232 interface of the PC with the aid of the cable connection. For configuration via Ethernet connection, both gateway and PC should be connected to a common network. Instead of the RS232-null-modem-cables corresponding network cables respectively patch cables should be used therefor. The power supply unit is required in order to provide an independent power supply to the gateway.

Comment:

The gateway can also be configured if it is already integrated in the target system, i.e. if it is installed in a switch cabinet for instance and connected to the GMA and Fieldbus (Ethernet/Profibus). In such a case, the available switch cabinet power supply can be used. For configuration purposes, the connected Fieldbus can be used. Alternatively a PC needs to be connected to the gateway via the RS 232 cable connection.

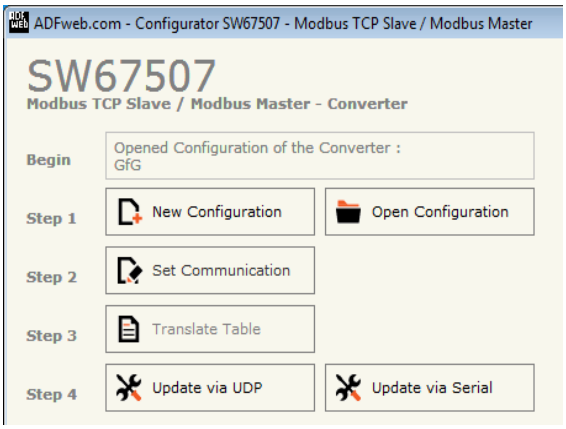
2.2 Switching to configuration mode

The gateway should first be switched into configuration mode before it can be configured. This is done via the switch pair **"Dip Switch A"**, which can be found on the side of the gateway. Both switches 1 and 2 therefor should be brought in the position **ON** by using a suitable tool (e.g. small screwdriver). The gateway should then be restarted by briefly interrupting the power supply. Following the restart, the gateway is then in configuration mode.

2.3 Configuration

In order to configure the gateway, the Compositor SW67507 software should be installed on a PC/laptop. This program is supplied on a CD together with the gateway. The software can also be downloaded free of charge from the manufacturer's homepage www.adfweb.com. The program icon can be seen in the adjacent image.

After the software is started the user interface which is shown on the right (main window) appears and guides the user in four steps through the configuration:



Step 1: Creation of a new configuration with the setting of the configuration name and the storage directory or opening an already existing configuration.

Step 2: Determination of the configuration parameters. After clicking on the set communication button, the configuration parameters can be set in the window showed below.

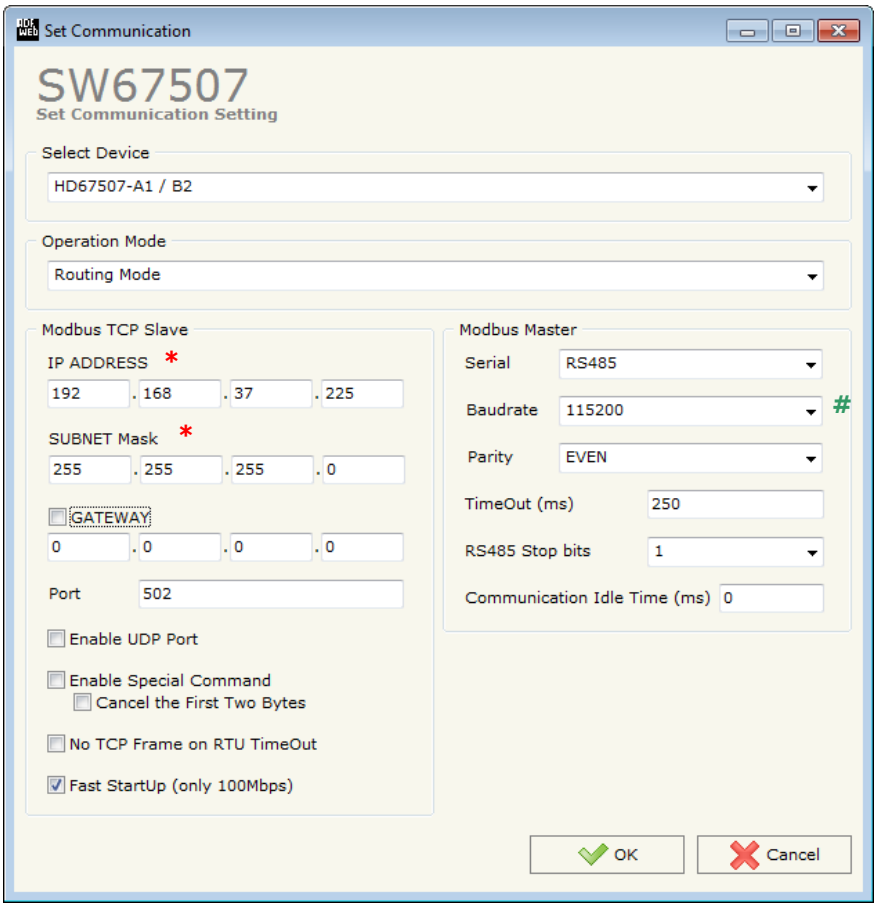
Step 3: This option is locked (grayed) for the required operation mode of the gateway and can be skipped.

Step 4: Transfer of the configuration setup via RS232 connection or via Ethernet connection to the gateway

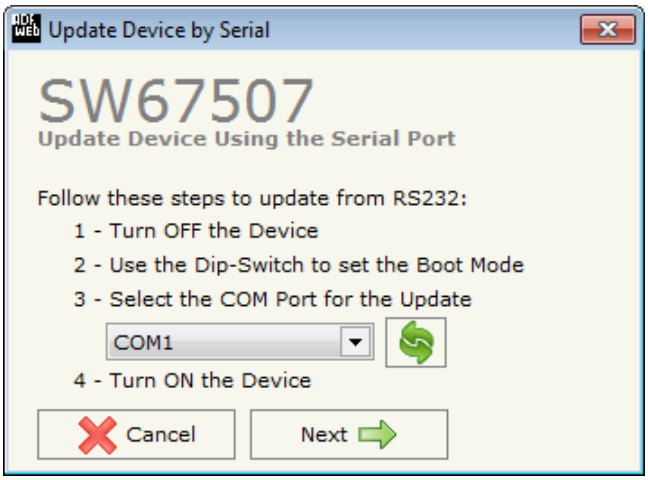
The adjacent image illustrates the input window for the setting of the configuration parameters, which appears during step 2. The red marked parameters (*) are customer specific Ethernet-network-settings. They refer to the free IP-address of the gateway as well as the subnet screen of the local network. These parameters should be provided by the plant operator.

The green marked parameter (#) represents the plant specific baud rates of the GMA bus, i.e. this baud rate should correspond to those filed in the GMA. All remaining parameters should be set identically for all gateways according to the figure.

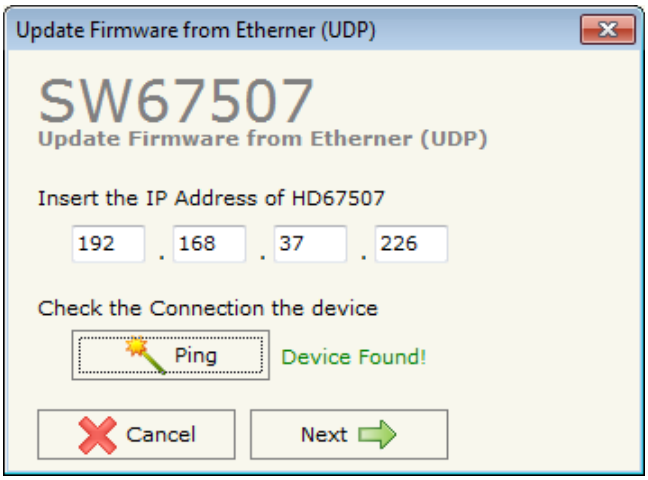
Once all settings have been performed, they can be confirmed by clicking the OK button and the configuration can be transferred to the gateway (Step 4).

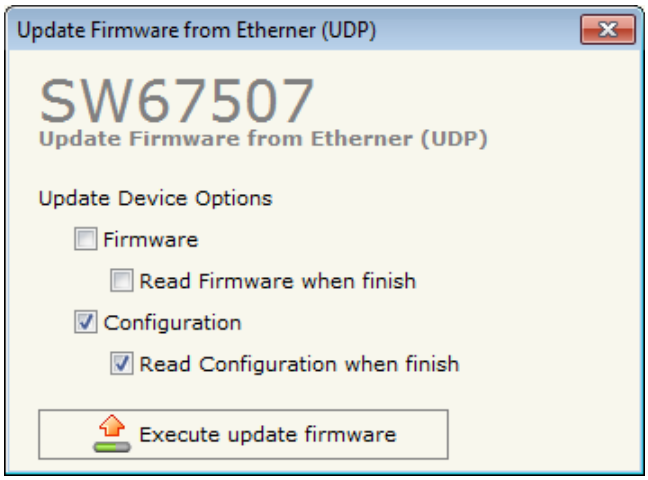


For the transfer of the configuration via the RS232 connection (null-modem cable) press the "Update via Serial" button in the main window (Step 4). A new window, which is illustrated lower left opens. In this window the COM-Port of the PC/laptop for the serial connection should be selected. To confirm these settings and switch to the next window (lower right) press the "Next" – button. In this window the content (Firmware / configuration) for the transfer can be selected and the transfer can be started by pressing the "Execute Update Firmware" button.



For the transfer of the configuration via network, press the "Update via UDP" button in the main window (Step 4).). A new window, which is illustrated lower left, opens. In this window the connection to the gateway should be selected. In doing so, the IP address of the gateway should be entered and a ping command should be executed. If the gateway was found, this will be shown as appropriately (as illustrated below). To switch to the next window (lower right) press the "Next" button. In this window the content (Firmware / configuration) for the transfer can be selected and the transfer can be started by pressing the "Execute update firmware" button.





2.4 Commissioning

Prior to commissioning, the gateway should be disconnected from the power supply and the RS232 cable connection should be removed from the gateway. Furthermore, the gateway should be switched back into normal operating mode. In order to do so, the switch **2** of the switch pair "**Dip Switch A"** located on the side should be switched into the **"OFF"** position respectively. (Switch 1 remains on position **ON**)

If not yet performed, the gateway should then be integrated into the target system by connecting it to the GMA bus connection to the measurement module on the Modbus side via the RS485 interface and to the local Ethernet network / Profibus on the Fieldbus side. After switching the power supply on, the gateway is ready for operation and the GMA can be read from a Fieldbus master.

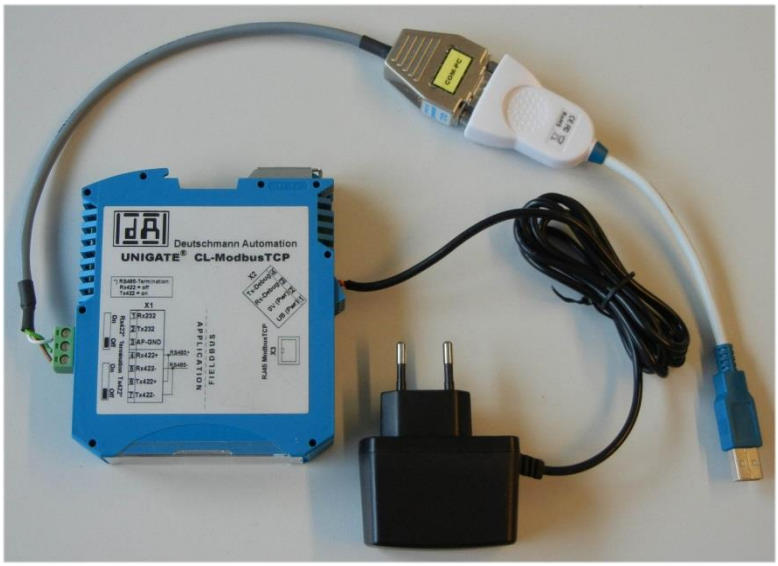
3. Profibus/Profinet-Gateway

The process of connection to the PC/laptop, the shift to the configuration mode and the commissioning works identical for the Profibus-Gateway and the Profinet-Gateway. Therefor the manuals for both gateways are combined in the following chapter. Only the device-specific configuration parameters are described in each case.

3.1 PC Connection

The following components are required in order to perform the configuration:

- PC (e.g. laptop)
- Gateway (Profibus / Profinet)
- Power supply unit (10…33 VDC / max. 350mA)
- RS232 1:1 cable connection (optional with USB adapter)



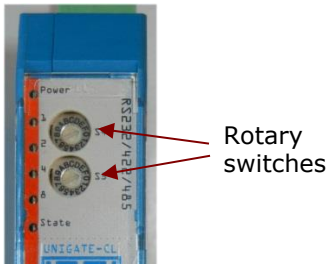
The gateway should be connected to the RS232 interface of the PC with the aid of the cable connection. Alternatively, an additional USB adapter can be used to connect to a USB interface of the PC. Required USB drivers are then automatically installed upon connection. The power supply unit is required in order to provide an independent power supply to the gateway.

Comment:

The gateway can also be configured if it is already integrated in the target system, i.e. if it is installed in a switch cabinet for instance and connected to the GMA and Fieldbus (Ethernet/Profibus). In such a case, the available switch cabinet power supply can be used. For configuration purposes, only the PC then needs to be connected to the gateway via the RS 232 cable connection.

3.2 Switching to configuration mode

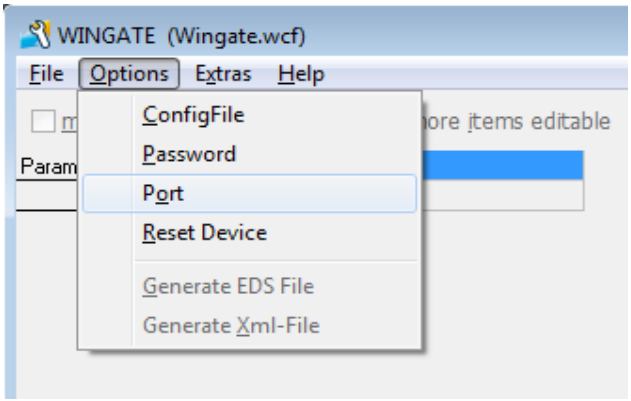
The gateway should first be switched into configuration mode before it can be configured. This takes place via the two **S4** and **S5 rotary switches** located in the front of the gateway. After opening up the transparent plastic cover (if present), both switches should be respectively turned to the **"F"** position using a suitable tool (small screwdriver or similar instrument). The gateway should then be restarted by briefly interrupting the power supply. Following the restart, the gateway is then in configuration mode.

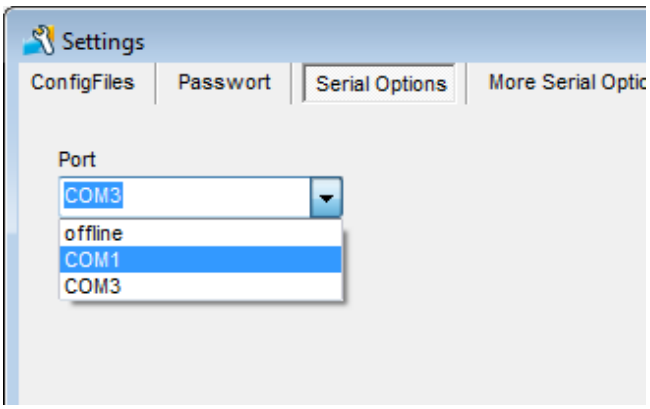


3.3 Configuration

The Wingate program (unless already present) should be installed on a PC in order to configure the gateway. This program is supplied on a CD together with the gateway. The software can also be downloaded free of charge from the manufacturer's homepage www.deutschmann.com. When starting the software, the program automatically attempts to establish a connection with the gateway via a preset COM port and to read the configuration parameters. If an incorrect COM port has been set, it can be changed via the menu navigation of the program as illustrated in the following figures.

Software Icon

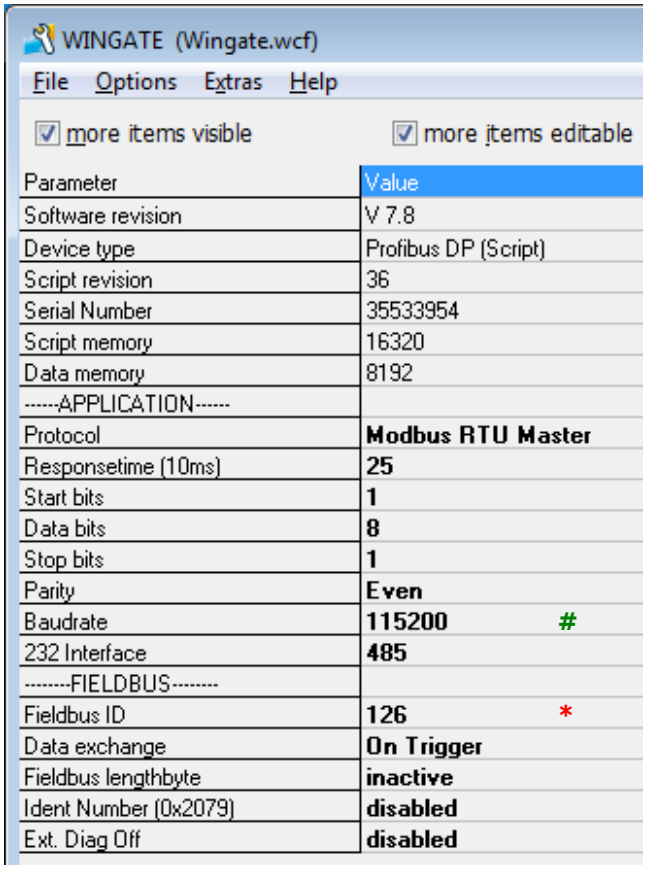


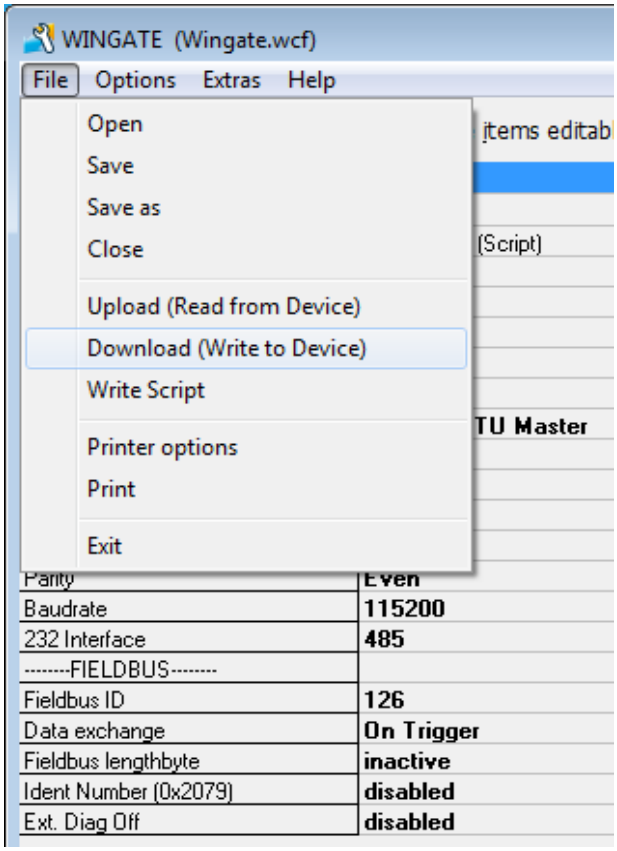


If the correct COM port is selected and it is possible to establish a connection to the gateway, all configuration parameters are automatically read and displayed in a table. Various parameters can be displayed or hidden by means of two checkmarks above the table.
All **bold** parameters can be changed (see figures in Sections 3.3.1 and 3.3.2).

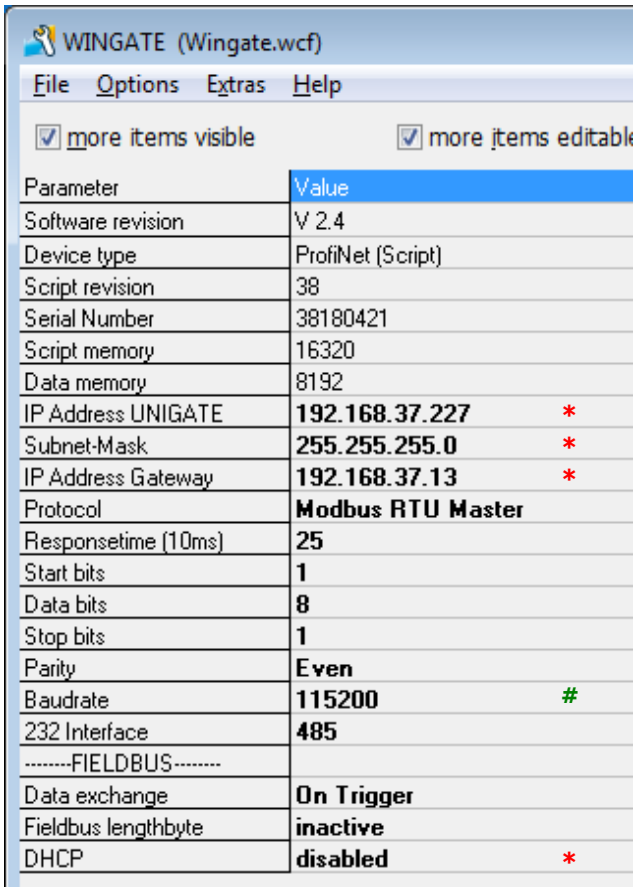
3.3.1 Profibus-Gateway

The following left figure displays the configuration parameters for the Profibus-Gateway. The parameters marked in red (*) are customerspecific Profibus addresses belonging to the gateway. The Profibus address can also be set in a hexadecimal manner via the **High** and **Low rotary switches** in the front of the gateway. If the rotary switches are set to a value between 0 … 125 (0 … 0x7D), then this value will be used as the Profibus address instead of the configured parameter. However, if the rotary switches are set to 126 (0x7E), the configured parameter that is set to the default value 126 is used and can either be changed via the configuration program or by a Profibus master. On the Profibus, the address 126 is reserved for this purpose, i.e. the gateway cannot perform a data exchange with this address; it can only be configured with a new address. As is the case with the Ethernet-Gateway, the parameters marked in green (#) are plant-specific baud rates of the GMA bus, that should correspond to the respective value filed in the GMA. All remaining parameters should be set identically for all gateways. Following changes, the new configuration should then still be transferred to the gateway (see Section 3.3).
After all settings are finished, the new configuration should be transferred to the gateway as illustrated lower right.
In addition, the Profibus master should be notified of the gateway configuration settings via a GSD file [GSD.D]. There, the length of the telegram payload (inputs/outputs) is defined amongst other things (see Section 5 "Fieldbus Protocol Information"). The GSD file is supplied with the gateway.





3.3.2 Profinet-Gateway



The adjacent figure displays the configuration parameters for the Profinet-Gateway. The parameters marked in red (*) are customer-specific Profinet network settings. They concern the IP address of the Fieldbus gateway (UNIGATE), the subnet screen of the local network and the IP address of the network gateway. These parameters should be made available by the plant operator. Alternatively these network parameters can be sourced automatically from a DHCP-Server (if used). Therefor the parameter DHCP should be changed from "disabled" to "enabled". The parameters marked in green (#) are plant-specific baud rates of the GMA bus, i.e. this baud rate should correspond to those filed in the GMA. All remaining parameters should be set identically for all gateways according to the figure.

The Profinet address can also be set in a hexadecimal manner via the **High** and **Low rotary switches** in the front of the gateway. If the rotary switches are set to a value between 0 … 125 (0 … 0x7D), then this value will be used as the Profibus address instead of the configured parameter. However, if the rotary switches are set to 126 (0x7E), the configured parameter that is set to the default value 126 is used and can either be changed via the configuration program or by a Profibus master. On the Profibus, the address 126 is reserved for this purpose, i.e. the gateway cannot perform a data exchange with this address; it can only be configured with a new address. As is the case with the Ethernet-Gateway, the parameters marked in green (#) are plant-specific baud rates of the GMA bus, that should correspond to the respective value filed in the GMA. All remaining parameters should be set identically for all gateways. Following changes, the new configuration should then still be transferred to the gateway (see Section 3.3.1).
Furthermore the configuration settings of the gateway (IO-device) should be communicated to the Profinet-Master through a GSD-File [GSDX.D]. In this menu the length of the telegram payload (Inputs/Outputs) can also be set up. (see section 5 Fieldbus protocol information). The GSD file will be supplied with the gateway.

3.4 Commisioning

Prior to commissioning, the gateway should be disconnected from the power supply and the RS232 cable connection should be removed from the gateway. Furthermore, the gateway should be switched back into normal operating mode. In order to do so, the two **S4** and **S5 rotary switches** located at the front should be switched into the **"0"** position respectively.

Comment:

In fact, the rotary switches can be respectively switched into any desired position apart from "F" and "E". These two switch positions are reserved for certain operating modes (configuration and test operation). In all other switch positions, the gateway starts in normal mode. If not yet performed, the gateway should then be integrated into the target system by connecting it to the GMA bus connection of the measurement module on the Modbus side via the RS485 interface and to the local Ethernet network / Profibus on the Fieldbus side. After switching the power supply on, the gateway is ready for operation and the GMA can be read from a Fieldbus master.

4. Profibus/Ethernet-Gateway

4.1 PC Connection

Following components are needed for the configuration:

- PC (e.g. Laptop)
- Profibus/Ethernet-Gateway
- Power supply (10…33VDC/max. 350mA)
- RS232–1:1 cable connection (**without** USB adapter)

The gateway should be connected to the RS232-Interface of the PC by means of cable connection. There are two RS323 interfaces on the gateway, one for the configuration of the Ethernet parameter (X1) and one for the Profibus parameter. While connecting the RS232 cable connection to the gateway please pay attention to connect the ground line to the ground. No further USB adapter for the RS232 cable connection shall be connected to the gateway.

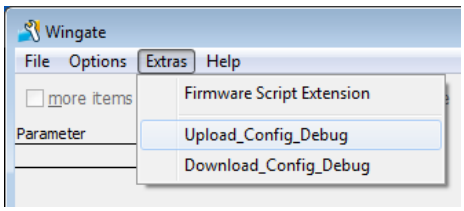
Comment:
The gateway can also be configured when it is already integrated in the target system and connected to the Profibus/Ethernet-Gateway and power supply. For configuration only the PC shall be connected to the gateway by using the RS232 cable connection.

4.2 Configuration

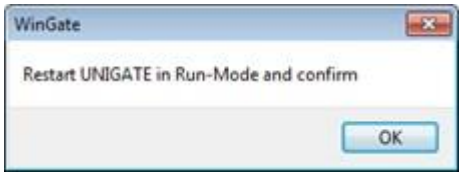
The configuration is performed in equal way to the one of Profibus- and Profinet-Gateway by using the **Wingate** software on the PC (see Section 3.3). For this purpose the gateway it needs not to be switched to configuration operation.

The software tries to establish a connection to a connected gateway via a default COM port at its' start automatically. This automatic connection is impossible, because the gateway operates in the normal mode (not configuration mode). After a few seconds the status in the status bar changes from 'search gateway' to 'no gateway found' (see adjacent illustration). Attention should be aid to the completion of this process.

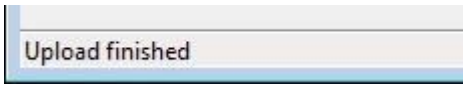
For the read out of the configuration parameter go to 'extras' in the menu bar and select 'Upload_Config_Debug'. A window with the request to restart the gateway appears subsequently. For this purpose the power supply of the gateway should be interrupted for a short time if it was on before. Otherwise the power supply should be activated now. Afterwards confirm and close the window by pushing 'OK'. To prevent errors, please maintain a waiting period for 15s between the reset of the gateway and the closure of the mentioned window.

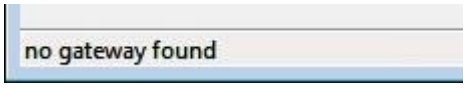


If the connection between PC and gateway could be established successfully, parameters will be read out and illustrated in table form. The status in the status bar changes to 'Upload finished'.



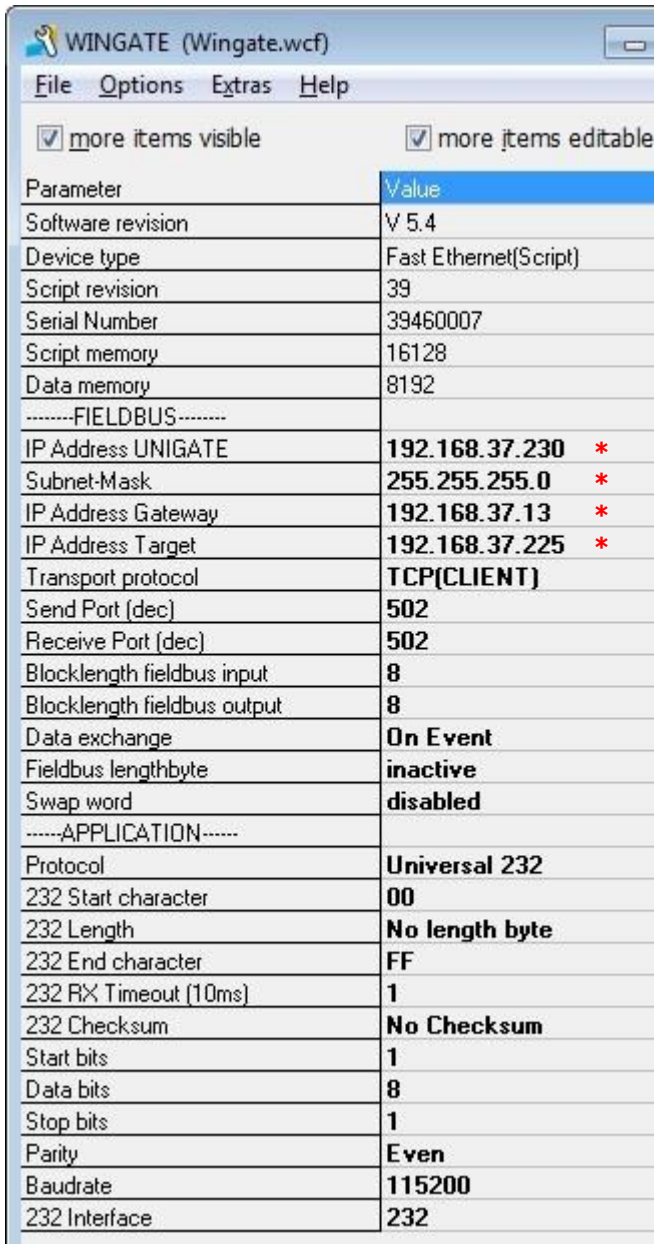
If the connection could not be established, the status in the status bar changes after a few seconds from 'Waiting for Device…' to 'no gateway found'. In the case that a wrong COM port is set, it can be reset in the menu as described in section 3.3. Afterwards this process can be repeated.





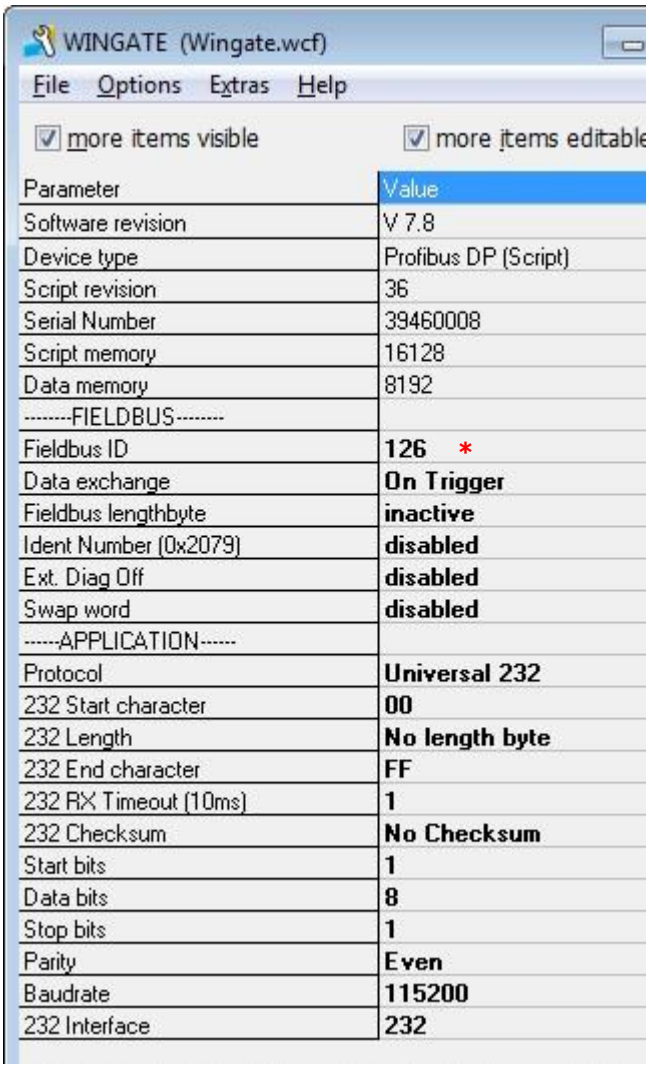
The lower illustration on the left shows the Ethernet configuration parameters, which will be read out, if the RS232 cable is connected to terminal block X1 of the gateway. The lower illustration on the right shows the Profibus configuration parameters, which will be read out, if the RS232 cable is connected to the terminal block X2 of the gateway.

By using the checkmarks over the table more or less parameters can be made visible. Each set and bold written parameter in the right column of the table can be selected and edited by double click.



Parameter	Value
Software revision	V 5.4
Device type	Fast Ethernet(Script)
Script revision	39
Serial Number	39460007
Script memory	16128
Data memory	8192
--------FIELDBUS--------	
IP Address UNIGATE	**192.168.37.230** *
Subnet-Mask	**255.255.255.0** *
IP Address Gateway	**192.168.37.13** *
IP Address Target	**192.168.37.225** *
Transport protocol	**TCP(CLIENT)**
Send Port (dec)	**502**
Receive Port (dec)	**502**
Blocklength fieldbus input	**8**
Blocklength fieldbus output	**8**
Data exchange	**On Event**
Fieldbus lengthbyte	**inactive**
Swap word	**disabled**
------APPLICATION------	
Protocol	**Universal 232**
232 Start character	**00**
232 Length	**No length byte**
232 End character	**FF**
232 RX Timeout (10ms)	**1**
232 Checksum	**No Checksum**
Start bits	**1**
Data bits	**8**
Stop bits	**1**
Parity	**Even**
Baudrate	**115200**
232 Interface	**232**

The red marked parameters (*) are customer specific Ethernet network settings. These are the IP address of the Fieldbus gateway (UNIGATE), the Subnet mask of the local network, the IP address of the network gateway (standard gateway) and the IP address of the Ethernet gateway, which is connected to the GMA bus. These parameters should be provided by the system operator. All remaining parameters should always be equally set according to the illustration.



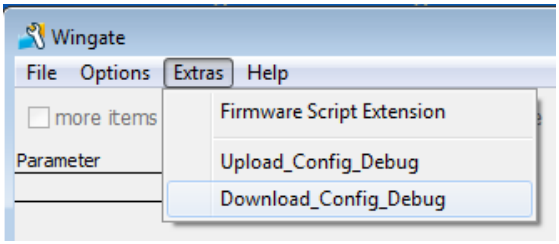
Parameter	Value
Software revision	V 7.8
Device type	Profibus DP (Script)
Script revision	36
Serial Number	39460008
Script memory	16128
Data memory	8192
--------FIELDBUS--------	
Fieldbus ID	**126** *
Data exchange	**On Trigger**
Fieldbus lengthbyte	**inactive**
Ident Number (0x2079)	**disabled**
Ext. Diag Off	**disabled**
Swap word	**disabled**
------APPLICATION------	
Protocol	**Universal 232**
232 Start character	**00**
232 Length	**No length byte**
232 End character	**FF**
232 RX Timeout (10ms)	**1**
232 Checksum	**No Checksum**
Start bits	**1**
Data bits	**8**
Stop bits	**1**
Parity	**Even**
Baudrate	**115200**
232 Interface	**232**

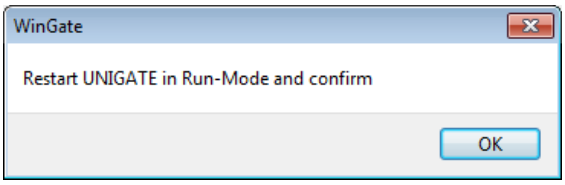
The red marked parameters (*) are customer specific Profibus address of the gateway. It also can be set hexadecimally by using the both rotary switches on the front of the gateway. If the rotary switches are set to a value between 0…125 (0x00…0x7D), then this value will be used as Profibus address instead of the configured parameter. If the rotary switches are set to the value of 126 (0x7E) indeed, then the configured parameter, which is set to the default value 126 and can be changed either via the configuration software or via the Profibus master by using the Profibus, will be used. The Profibus address 126 is exclusive for this purpose. All remaining parameters should always be equally set according to the illustration.

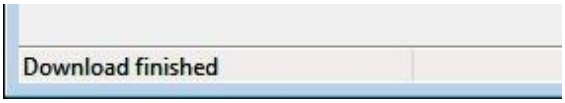
After configuration parameters have been changed, the new parameters should be transferred to the gateway. Therefore select Extras in the menu bar and click on 'Download_Config_Debug'. Subsequently a window (like at the upload of the configuration) with the request to restart the gateway appears. For restarting the gate way just interrupt the power supply for a few moments. Then confirm and close the window by clicking on 'OK'. Here again a waiting period of 15s between the restart of the gateway and the closure of the window should be maintained for preventing errors.

The configuration parameters will be transferred to the gateway and the status in the status bar changes to 'Download finished'.

If errors occur during the transfer, the cable connection should be checked and the process should be repeated.







4.3 Commissioning

For commissioning the gateway should be integrated in the target system by connecting it via suitable Fieldbus pins to the Profibus and to the Ethernet network as well as connecting it to the power supply by using one of the both supply inputs at terminal block X1 or X2. If the gateway was already integrated into the target system then it solely should be restarted (by a short interruption of the power supply). Subsequently it is ready to use.

5. Fieldbus Protocol Information

The description of the Modbus protocol in order to exchange data with the GMA 200 via the GMA bus is described in a separate document [BA.MB]. The Modbus telegrams described there are transferred in the user data area (Protocol Data Unit) belonging to the Fieldbus protocol (Modbus-TCP / Profibus-DPV0) **without the CRC16 Modbus checksum**.
The Ethernet-, Profibus- and Profinet-Gateway behaves as a slave to the Fieldbus and as a master to the Modbus. In turn, the GMA is a slave to the Modbus (see figure 4-1 for the Profibus). A data exchange is started by an enquiry from the Fieldbus master. The gateway then extracts the Modbus telegram from the user data area belonging to the received Fieldbus telegram, supplements the Modbus checksum and sends this telegram as an enquiry on the Modbus. Thereupon, the GMA response is sent to the Fieldbus master without the Modbus checksum in the user data area of the Fieldbus protocol.

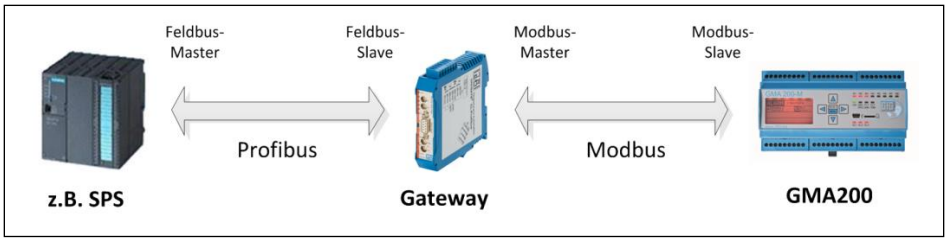


Figure 5-1

The Profibus/Ethernet-Gateway behaves as a slave to the Profibus and as master respectively client to the Ethernet network (see adjacent illustration)

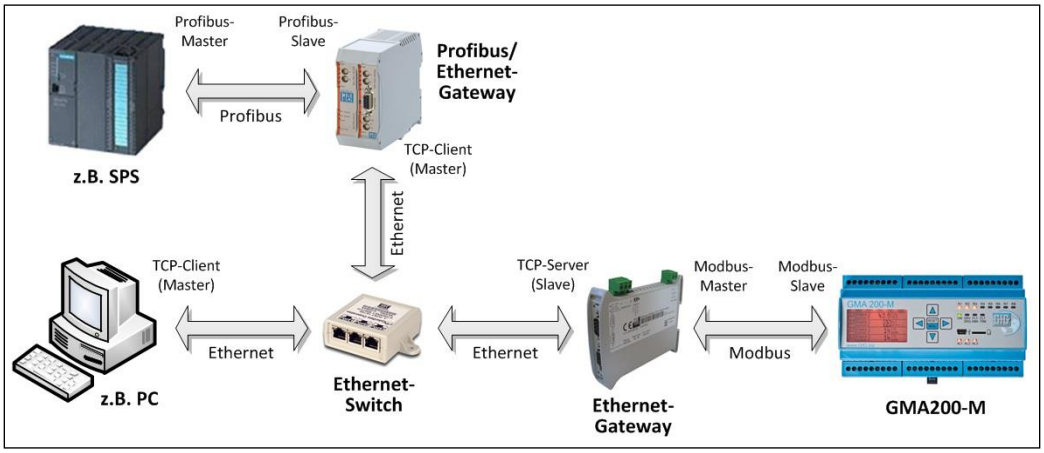


Figure 5-2

A data exchange is started by a request of the Profibus master. It sends the Modbus telegram without chechsum in the user data area of the Profibus telegram to the gateway. The gateway in turn sends the Modbus telegram in the user data area of the TCP telegram to the Ethernet-Gateway, which is connected to the GMA bus. The Ethernet-Gateway completes die Modbus checksum and sends this telegram as a request via Modbus. The response of the GMA is sent on the opposite path to the Profibus master.

5.1 Ethernet-Gateway

The user data length is variable with the Modbus TCP protocol; therefore, the Modbus telegram to be transferred is always entered 1:1 without the Modbus checksum there (see Figure 4.1-1).

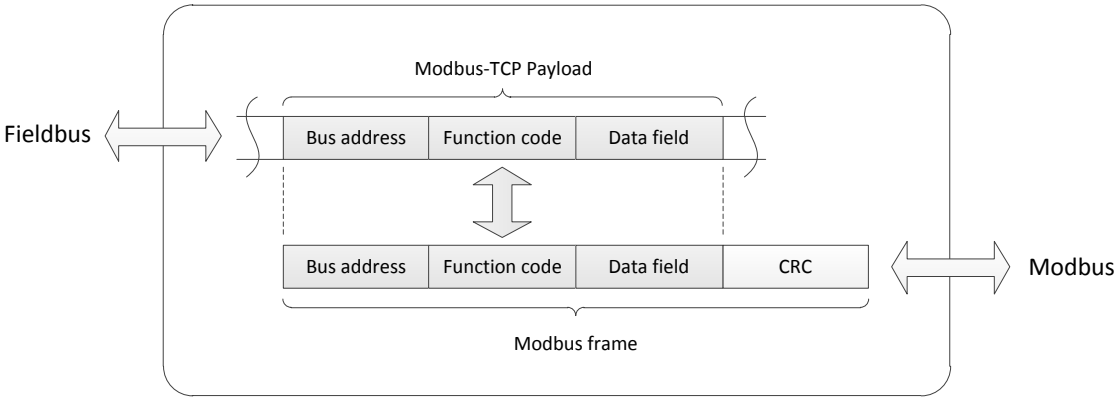


Figure 5.1-1

If the GMA doesn't send an answer within the timeout of 250ms after the Modbus enquiry, the gateway sends a corresponding error Telegram to the fieldbus (Modbus-Exception-Code 11) and the green LED on the front of the gateway which shows the Modbus-connection turns off. A description of the LEDs can be found in the instruction manual of the gateway [HB.GW]. The Timeout is configurable (look parameter "TimeOut" in section 2.3).

5.2 Profibus- and Profinet-Gateway

With the Profibus and Profinet, the user data length in the GSD file is specified in a fixed manner ([GSD.D] for Profibus and [GSDx.D] for Profinet. In doing so, a distinction is made between the user data which is transferred from the master to the slave (output data) and the user data that is transferred from the slave to the master (input data). The following table shows the configured data lengths.

Nutzdaten	**Data direction**	**Length [Bytes]**
Output data	Master → Slave	20
Input data	Slave → Master	108

The data lengths are dimensioned in such a manner that the longest Modbus telegrams (according to the description in [BA.MB]) can be transferred. For smaller Modbus telegrams, the unused bytes in the user data area should be filled with arbitrary values due to the fixed data lengths. In contrast to the Ethernet-Gateway, the Modbus telegrams are transferred with an additional trigger byte in the user data area belonging to the Profibus protocol (see Figure 5.2-1).

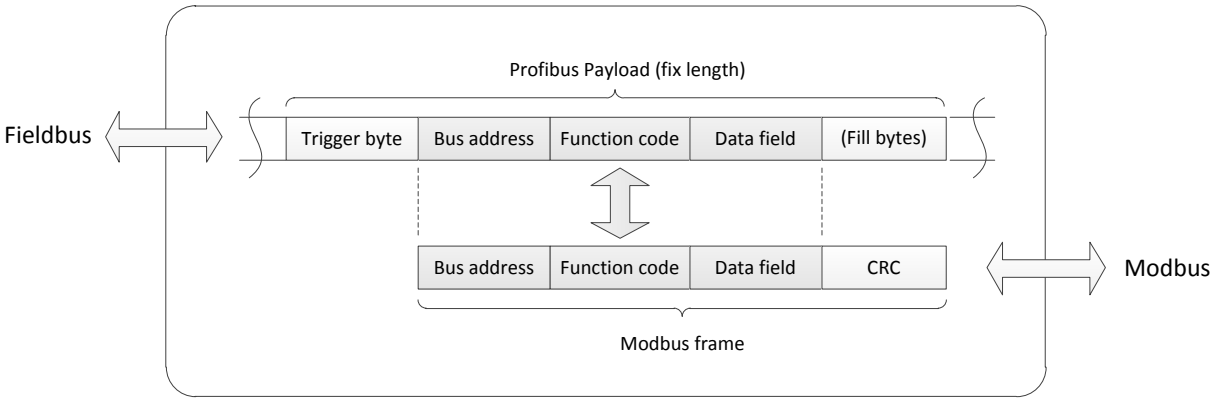


Figure 5.2-1

As the data on the Profibus should always be transferred in a cyclical manner, the gateway should be informed when new data should be transferred from the Fieldbus master to the Modbus by changing the trigger byte (e.g. incrementing of a count value). The trigger byte of the first message should be greater than zero. The gateway internally manages its own trigger byte that increases with each received telegram from the Modbus slave and is also sent back to the Fieldbus master in the response. Therefore, the trigger byte in the response of the gateway does not have the same value as the enquiry in the Fieldbus master. If the GMA doesn't send an answer within the timeout of 250ms after the Modbus enquiry by the gateway, the gateway reports a TimeOut-error in form of a corresponding flashing sequence of the LEDs at the front of gateway. The description of the flashing sequences at special states can be found in the instruction manual of the gateway [HB.GW]. The timeout is configurable (see parameter "Response time" in section 3.3.1 and 3.3.2).

5.3 Profibus/Ethernet-Gateway

Unlike with the Profibus-Gateway (section 5.2) here the Modbus telegrams are transferred in addition to the trigger byte with the Modbus-TCP-header in the user data area of the Profibus telegram (see Figure 5.3-1). As already described in section 5.2 the user data length is fixed in the GSD data [GSD.D]. The data lengths are dimensioned in the way that the most long Modbus telegrams (according to the description in [BA.MB]) can be transferred with trigger byte and Modbus-TCP-header. Due to fixed data lengths shorter Modbus telegrams the unused bytes in the user data area should be filled with random values.

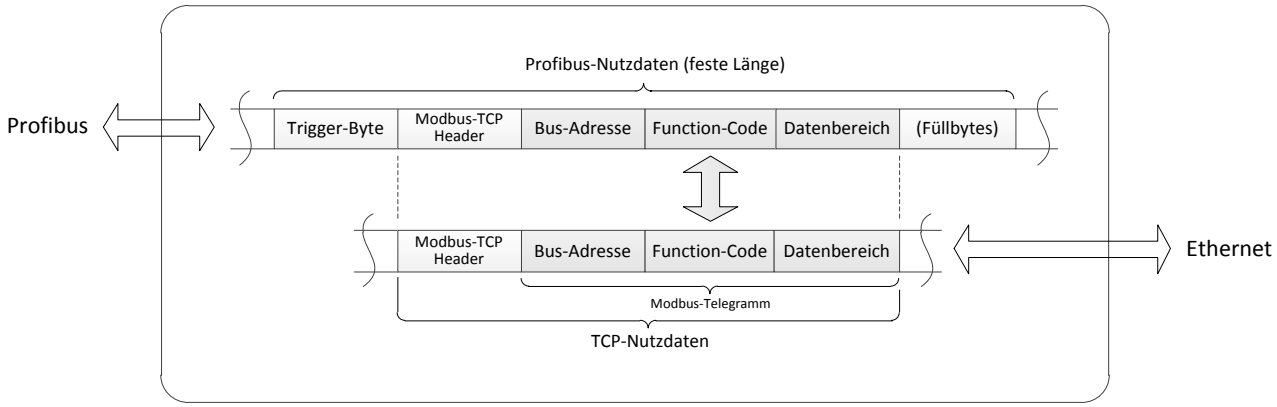


Figure 5.3-1

The trigger byte should be treated in the same manner as the Profibus-Gateway (see section 5.2).
The Modbus-TCP-Header is structured according to the following table.

Byte-Index	Content	Description
0	0x00	Transaktion number. Is not required and therefor can be set to zero
1	0x00	
2	0x00	Fixed protocol mark with the value zero
3	0x00	
4	0x00	Byte length [n] of the Modbus telegram consisting of bus address, function code and data area (without checksum). See [BA.MB].
5	[n]	

Structure of the Modbus-TCP-Header

The Profibus master should assemble the Modbus telegram without checksum and with trigger byte and Modbus-TCP-Header in the user data area (in the output data set at a PLC) of the telegram according to figure 5.3-1 and send it to the Profibus/Ethernet-Gateway. The gateway extracts the modbus telegram and the Modbus-TCP-Header and sends these data within the user data area of the TCP telegram to the Ethernet-Gateway, which is connected to the GMA bus. The Ethernet-Gateway in turn extracts the Modbus telegram, completes the checksum therein and sends it via the Modbus to the GMA. The answer of the GMA then will be send in reversed direction to the Profibus master. With PLC the Modbus telegram without checksum and with trigger byte and Modbus-TCP-Header sent by the GMA is located in the input data area.

6. References

[BA.MB] Annex of Instruction Manual of GMA200 – Modbus Implementation
GMA200-Modbus_AIM_(EN).pdf

[HB.GW] Operator's manuals for Ethernet-Gateway, Profibus-Gateway and Profinet-Gateway
HD67507-ModbusTCP_(EN).pdf
UNIGATE_CL-ProfibusDP_(EN).pdf
UNIGATE_CL-Profinet_2Port_(EN).pdf
UNIGATE_CX_(EN).pdf

[GSD.D] GSD file for Fieldbus Master for configuration of the Profibus-Gateways
DAGW5GfG.gsd

[GSDX.D] GSD file (XML) for Fieldbus Master for Configuration of the Profinet-Gateways
GSDML-V2.3-Deutschmann-UNIGATE-CL-PN-20141017-155000.xml

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