

# UNIGATE CL



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**UNIGATE CL – A flexible, fast and economical way to connect any devices  
with serial interface to Fieldbuses and Ethernet**

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1630 W. Diehl Rd.  
Naperville, Illinois 60563  
+1 630 245-1445, +1 630 245-1717 FAX  
[www.gridconnect.com](http://www.gridconnect.com)

## ■ A solution for (almost) all devices with serial interface:

### UNIGATE CL

The UNIGATE Gateway by Deutschmann connects devices, such as automation components via their serial interface to Fieldbuses and Ethernet. Here UNIGATE takes on the task of a protocol converter and converts the different interfaces. **UNIGATE CL** features the interfaces RS232, RS485 and RS422.

With the type series **UNIGATE CL** you can either configure the adaptation to your product or to the protocol or the capability of the **UNIGATE CL** protocol converter can be expanded considerably through the generation of a Script. Our approved configuration tool WINGATE can be used for the configuration or you can generate your intelligent Script by means of the PC-tool "Protocol Developer" which is available free of charge. In both cases changes in the terminal equipment's firmware are not necessary.

### Protocol Developer

The **Protocol Developer** allows you to generate a protocol for the connection to a serial interface with simple understandable commands in no time. Bulk commands for standard protocols, such as 3964R or Modbus RTU simplify/shorten the programming.

However, the Script language develops its full capability only when you compile "your" protocol. The Protocol Developer supports a great number of functions in order to bring the data received or the data to be sent into the correct "shape". Mathematical or memory processing commands

are known as from other programming languages and they are implemented in an understandable way for the layman. In order to control the desired Fieldbus the presetting is used, then the customer does not have to pay further regard to the Fieldbus. Or bus-specific parameters are used, that make the complete range of services of the bus available for the customer.

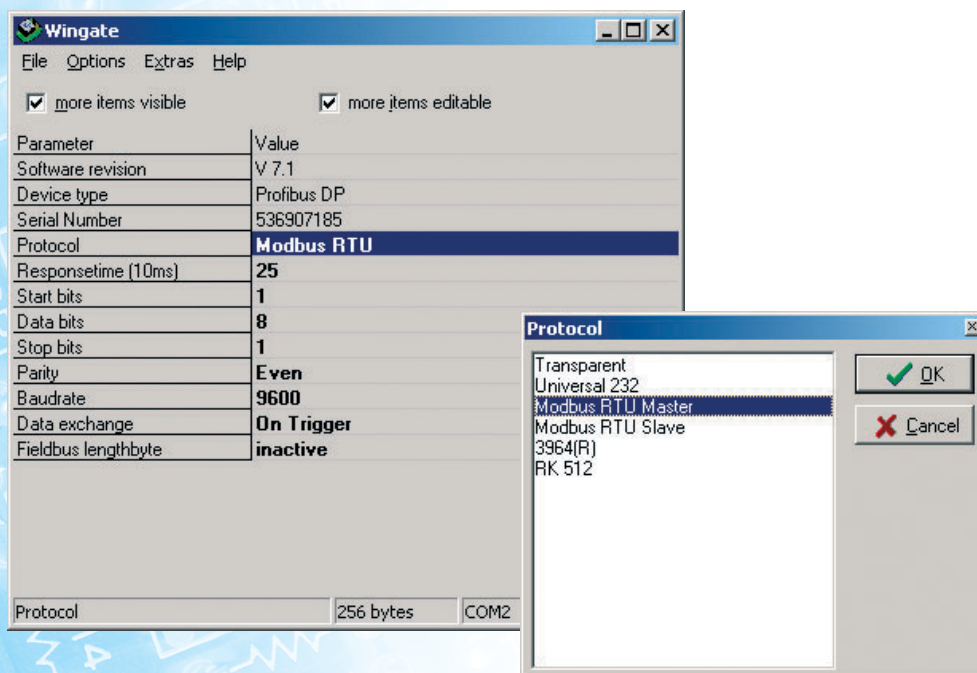
The chief attraction of this environment is that the Protocol Developer contains a Debug-window, so that in case of connected Debug-hardware a real debugging, which is real operation, is possible. Here the usual functions, such as single step, operation and stop on a breakpoint are available.

We attach great importance to data protection, for that special recognition routines can be activated on request.



*By the way: You can find an example for all Script commands on our website at [www.deutschmann.de](http://www.deutschmann.de) and of course all Deutschmann tools and software packages are available free of charge.*

The series **UNIGATE CL** has the commercially available protocols 3964R and 3964, RK512, Modbus ASCII and Modbus RTU (master and slave-operation possible) as well as a universal 232-protocol for transparent data exchange. The selection and configuration of the protocols is carried out through the PC-tool WINGATE.



## General description

All **UNIGATE CL**-products have identical mechanical dimensions and the same structure on the serial side. The Fieldbus- or the Ethernet-side complies with the standards or the commercially available versions. Configurations or Scripts that have been generated for one bus can be used for other buses more or less without any changes.

**UNIGATE CL**-products offer you the full flexibility by free programming of a Script through the PC-tool "Protocol Developer". This way also extensive customized protocols can be

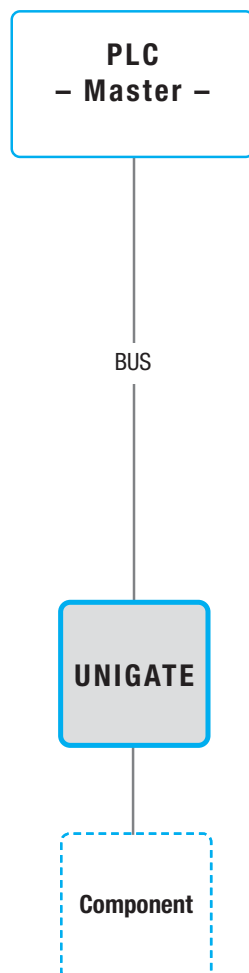
copied and/or the data can be further processed as desired and you do not have to modify the Firmware of your device.

When using the RS485-interface, several terminal units can be operated in one network, whereas a repeater has to be inserted after 31 device.

## Applications

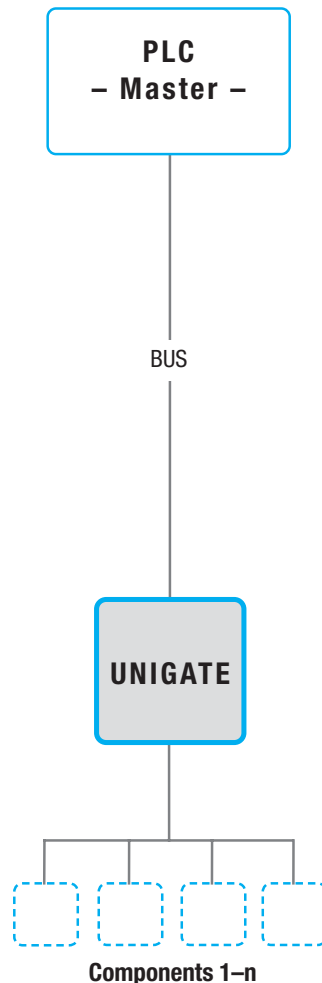
### Point-To-Point-Connection

Between the UNIGATE and a component via one of the serial interfaces



### Master-Slave-Structure

When using the RS485-interface more terminal units can be linked and addressed specifically at the corresponding protocol (e. g. Modbus RTU-Master)



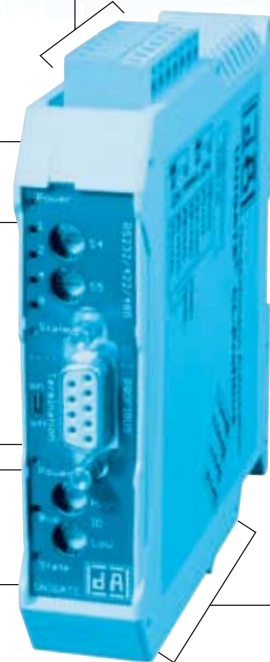
Standard  
DIN-rail module

Serial side RS232, RS422, RS485

Status-LEDs and  
rotary coding  
switches  
for serial side

Bus-side complying with the  
standard or market standard  
(connecting plug at CANopen and  
Profibus up front)

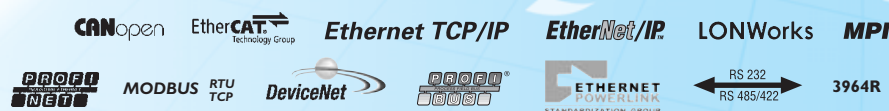
Status-LEDs and  
rotary coding switches  
for bus side



## General technical data for all versions

■ Fixing	DIN-rail module with integrated grounding
■ Interfaces	RS232, RS422 and RS485 on board
■ Baud rates of the serial interface	110 Baud up to 625 Kbaud
■ RS-connection and supply voltage	Through screw-plug connector
■ Input buffer RS-side	1024 bytes input- and output-buffer each
■ Diagnosis	6 LEDs for diagnosis of the serial application interface
■ Bus termination	Switchable
■ ID	Adjustable through 2 rotary coding switches
■ Operating voltage	10.8 to 32 Volt
■ Protection type	DIN-rail module IP24
■ Dimensions	23 x 100 x 115 mm (B x H x D), connector not included
■ Temperature range	0°C – 55°C
■ Certificates	CE
■ Galvanic division	Optional for the serial side for all versions available, standard on the bus-side

Currently available or in preparation for:



## Bus-specific technical data

	CANopen	DeviceNet	EtherCat	EtherNet/IP	Fast Ethernet 10/100 Mbit	LONWorks 62	MPI	Powerlink	ProfibusDP	Profinet	RS
<b>Bus connection</b>	9pol. D-SUB connector	5pol. screw-plug connector	2xRJ45	RJ45	RJ45	2 x 2pol. screw-plug connector	9pol. D-SUB socket	RJ45	9pol. D-SUB socket	RJ45	7pol. screw-plug connector
<b>Bus buffer</b>	255 bytes I/O	255 bytes I/O		500 bytes I/O	1024 bytes I/O	512 bytes I/O	240 bytes I/O	1514	244 bytes I/O	1300 I/O	512 bytes I/O
<b>Bus baud rate</b>	Adjustable via Dip-switch	Adjustable via Dip-switch	100 MBaud	10/100 Mbit	10/100 Mbit	78,1 KB	Adjustable via Script	100 Mbit	Automatic recognition	100 MBaud	Adjustable via Script
<b>Potential isolation</b>	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes (optional)
<b>Bus termination resistor</b>	Switchable	Switchable	–	–	–	–	Switchable	–	Switchable	–	Switchable (at RS422/485)
<b>BUS ID</b>	Adjustable via Dip-switch	Adjustable via Dip-switch		IP-address adjustable via WINGATE	IP adjustable via WINGATE or Script	Neuron ID	Adjustable via rotary switch	IP-address adjustable via rotary switch	Adjustable via rotary switch	IP-address is automatically assigned through the device's name	Adjustable via DIP-switch
<b>Diagnosis</b>	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED



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