PROTOCOL CONVERTER
UNIGATE® CL

- Easy installation
- Norm compliant
- Ready-to-use
- Configurable
- Programmable
- Designed & manufactured in Germany

THE INTELLIGENT PROTOCOL CONVERTER FOR

CANopen · DeviceNet · EtherCAT · EtherNet/IP · ETHERNET TCP/IP · LONWorks · Modbus · MODBUS TCP · MPI · PROFIBUS · PROFINET

A SOLUTION FOR ALL DEVICES WITH A SERIAL INTERFACE

Deutschmann
your ticket to all buses

Protocol Converter | Embedded Solutions | Gateways

The intelligent Protocol Converter

UNIGATE® CL – The solution for all devices with a serial interface

The Protocol Converter UNIGATE® CL connects devices such as automation components via their serial interfaces to the required fieldbus or industrial Ethernet standard. RS232, RS485 and RS422 interfaces are on Board as a standard feature.

The communication between the serial side and the bus takes place either through the device configuration and a selection of the commercially available protocol, such as Modbus ASCII, Modbus RTU (Master or slave), 3964 (R), RK512, DIN measuring bus, DIN 19244, or the device is controlled by a script.

This Script is created with the free PC tool, 'Protocol Developer'. You decide whether you want to program the Script yourself or hire Deutschmann Automation to do so.

A special feature of the UNIGATE® CL series is Brand labeling. With the customized design Deutschmann Automation not only gives you the opportunity to pre-configure the device and choose different housing colors, you can also apply your own logo.

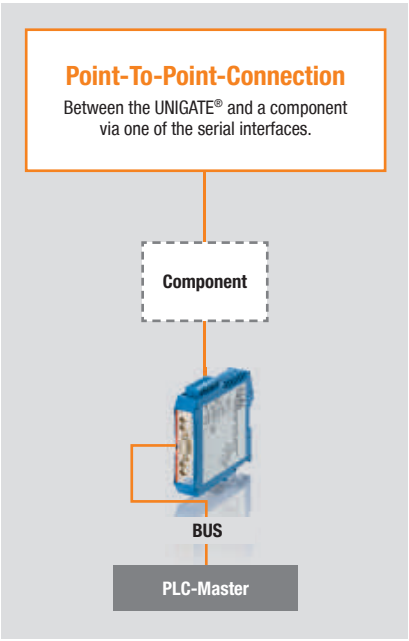
Your Advantage

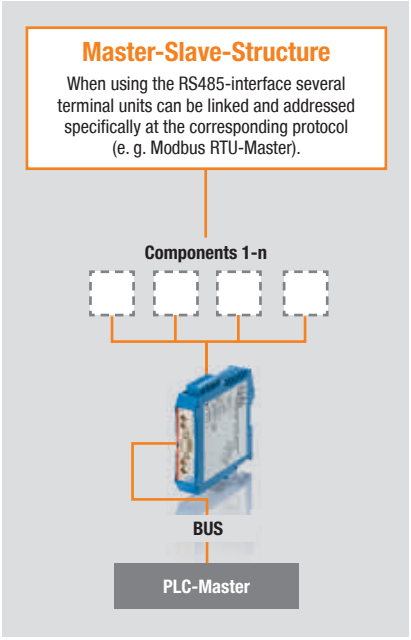
With the UNIGATE® CL modules from Deutschmann you bring existing components into modern networks. As a device manufacturer you save the self-development of the respective fieldbus or Ethernet based interfaces. The consistency of the Deutschmann UNIGATE® CL series allows once generated configurations and scripts to be used for other fieldbus and Ethernet based versions.

Advantage Deutschmann – This speaks for UNIGATE® CL

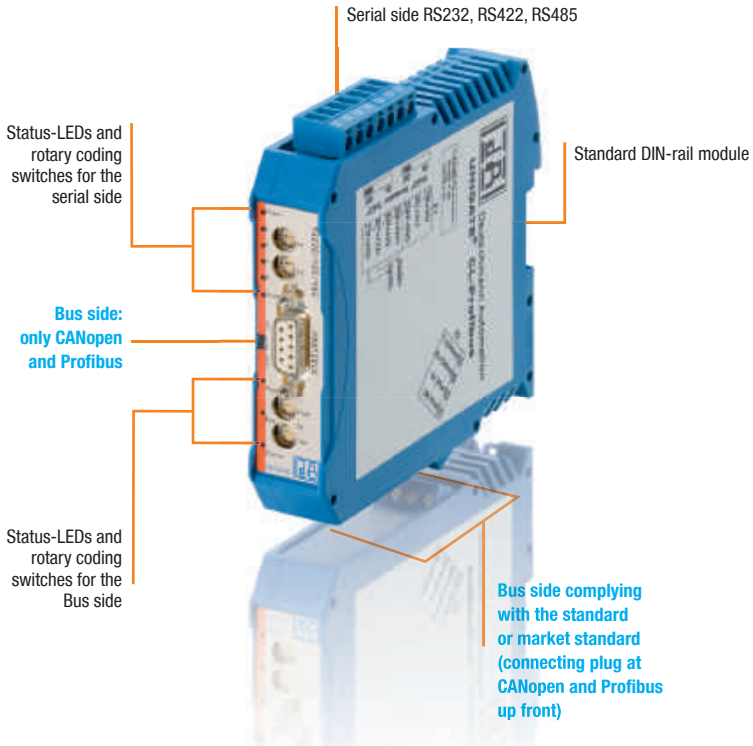
- Available for the most fieldbus and Industrial Ethernet versions
- RS232, RS485- and RS422 interfaces are on Board
- Same design on the serial side in all bus versions
- The fieldbus or Ethernet side meets the standards, respectively the standard market models.
- SSI protocol is supported e.g. for encoder
- Built-in isolation on the bus side, optionally on the serial side
- Configuration of the module via configuration tool WINGATE
- Free programming with Protocol Developer (Deutschmann Script language)
- No adjustment of the device firmware needed
- Additional debug interface on board
- Modern, slim, DIN rail
- Same Dimensions in all bus variants
- Brand labeling, pre-configured according to the customer
- Wide voltage range from 10 to 33 VDC
- When using the RS485 interface, multiple terminal devices can be used on a Protocol Converter (e.g. Modbus RTU).

Application example





UNIGATE® CL design



Deutschmann

your ticket to all buses

- **Point to point connection via any serial interface**
- **SSI protocol is supported e.g. encoder**
- **Master-slave structure, e.g. with Modbus RTU**
- **The converter can operate as a master or a slave**
- **Same mechanical design of all bus versions**
- **Space-saving housing**
- **Wide voltage range**
- **Brand labeling**
  - own logo
  - own article description
  - Pre-configuration, import your own script
  - Neutral packaging
  - Own front panel designed for your CI
  - Own housing color

Technical overview

CANopen

Art.-No. ● V3554 ● ⁄ V3708 ● V3771 ● ⁄ V3867

- Complete CANopen-Slave-interface
- Max. 32 TPDO and max. 32 RPDO process data objetcs
- Max. 255 Bytes input- and 255 Bytes output data
- Baud rate 10kbit/s to 1 Mbit/s
- Isolated CANopen interface with 9-pin. D-Sub connector
- CANopen peer-to-peer messaging
- Generic EDS file

EtherNet/IP 2Port

Art.-No. ● V3819 ● ⁄ V3861 ● V3879 ● ⁄ V3870

- EtherNet/IP adapter function
- Max. 1060 Bytes input- and 1060 Bytes output data
- Baud rate 10 or 100 Mbit/s
- Isolated Ethernet interface with 2x RJ45 connector
- IT functions: Web server, FTP Server
- Generic EDS file

ODVA CONFORMANT

DeviceNet

Art.-No. ● V3555 ● ⁄ V3686 ● V3772 ● ⁄ V3868

- Complete DeviceNet interface
- Max. 255 Bytes input- and 255 Bytes output data
- Baud rate 125-500 kbit/s
- Isolated DeviceNet interface with 5pin. terminal connection
- DeviceNet functions: I/O Slave messaging, polling
- Generic EDS file

Fast Ethernet

Art.-No. ● V3611 ● ⁄ V3643 ● V3775 ● ⁄ V3871

- Complete Fast Ethernet Slave interface
- Max. 1024 Bytes input- and 1024 Bytes output data
- Baud rate 10 or 100 Mbit/s
- Isolated Fast Ethernet interface with 1x RJ45 connector
- IT-functions: Web server, FTP Server

EtherCAT®

Art.-No. ● V3573 ● ⁄ V3860 ● V3773 ● ⁄ V3869

- 100 Mbit/s Full-Duplex transmission
- Isolated EtherCAT interface with 2x RJ45 connector
- Supports CANopen communication objects, PDO and SDO
- Max. 512 Bytes input- and 512 Bytes output data

LONWorks

Art.-No. ● V3623 ● ⁄ V3863 ● V3776 ● ⁄ V3873

- Complete LONWorks slave interface
- Max. 512 Bytes input- and 512 Bytes output data, 62 In and Out SNVTs
- Baud rate FTT-10A, 78 kBit/s
- Isolated LONWorks interface with 4pin. Screw connector
- Fixed Neuron ID

Modbus TCP

Art.-No. ● V3681 ● ⁄ V3862 ● V3778 ● ⁄ V3872

› Complete Modbus-TCP slave interface
› Max. 252 Bytes input- and 252 Bytes output data
› Isolated Ethernet interface

MPI

Art.-No. ● V3556 ● ⁄ V3864 ● V3779 ● ⁄ V3874

› Complete MPI slave interface
› Max. 92 Bytes input- and output data
› Baud rate adjustable via script
› Isolated MPI interface with 9-pin. D-sub connector

PROFIBUS

Art.-No. ● V3553 ● ⁄ V3649 ● V3781 ● ⁄ V3876

› Complete PROFIBUS-DP slave interface
› Max. 244 Bytes input- and 244 Bytes output data, max. 488 Bytes total
› PROFIBUS address adjustable via rotary switch
› Automatical Baud rate recognition (9600 bit/s – 12 Mbit/s)
› Isolated PROFIBUS interface with 9-pin. D-sub connector
› Generic GSD file

● Deutschmann standard
● Grey housing
● ⁄ with galvanic isolation
● ⁄ with galvanic isolation

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General specifications:

- serial interfaces RS232,RS485, RS422
- Baud rates: 110 bps to 625 KBaud
- Debug interface
- 2 rotary coding switches on the serial side for free use of the customer
- Operating voltage: 10 to 33Volts
- Dimensions: 23 x 115 x 100 mm (W x D x H), without connector
- Weight approx. 140 g
- DIN rail IP20
- Storage temperature: -40°C to +85°C
- Operating temperature: -40°C to +85°C,variants with RJ45 socket -25°C to + 85°C
- Humidity 0 % to 95 % / non condensing
- CE and bus-specific certifications
- RoHS
- Reach

Delivery

- Each unit is supplied in a single pack
- Bulkpacks and special designs on request

Technical overview

PROFINET 2Port

Art.-No. ● V3818 ● ⁄ V3866 ● V3859 ● ⁄ V3877

- Complete PROFINET-IO-Device interface (slave)
- Max. 1440 Bytes input and max. 1440 Bytes output data
- Isolated PROFINET interface with 2x RJ45 connector (integrated switch)
- 100 Mbit Full-Duplex transmission
- 32-Bit microprocessor for fast response time
- Generic GSD file

PI CERTIFIED
PROFIBUS • PROFINET

RS

Art.-No. ● V3546 ● ⁄ V3839 ● V3783 ● ⁄ V3878

- Complex/proprietary protocol implementation based on RS-interface (232/485/422)
- Max. 1024 Bytes input and max. 1024 Bytes output data
- Modbus RTU/ASCII (master or slave, 3964 oder 3964R and RK512)
- Galvanic isolation of the fieldbus RS-side

● Deutschmann standard
● Grey housing
● ⁄ with galvanic isolation
● ⁄ with galvanic isolation

Deutschmann - product line overview

ALL-IN-ONE-BUS NODE UNIGATE® IC/IC2 – Ready-to-install

- Easy integration into your own electronics
- Module consists of standard components
- Connection to your host processor via UART or SPI
- Flexible protocol adaption via Deutschmann script language
- Standard protocols like Modbus, 3964R, etc. included
- Designed and manufactured in Germany

UNIGATE® CX - Flexible Gateways to make incompatible networks compatible

- Modular Gateway concept
- Currently approx. 120 versions available
- Easy configuration
- Wide voltage and temperature range
- Designed and manufactured in Germany

UNIGATE® MB - For all devices with Modbus RTU interface

- RS232, RS485- and RS422 interfaces on Board
- Easy configuration
- Modbus RTU (master/slave), Modbus ASCII (master/slave)
- Up to 24 Modbus requests configurable
- Modern, slim DINrail
- Designed and manufactured in Germany

Global availability

The company

Deutschmann Automation, a german company based in Bad Camberg is working in the automation technology since 1976 and became known with cam controls in the 1980s.

In 1989 Deutschmann Automation started operating in the fieldbus technology. The development of one's first own bus system DICNET was an essential step. Since 1996 different fieldbus and Industrial Ethernet products are offered under the brand name UNIGATE®.

Thanks to a competent quality management and continuous enhancement Deutschmann became one of the leading suppliers in the automation industry. The entire development and manufacturing takes place in Germany.

We offer workshops for our All-In-One Bus nodes of the UNIGATE® IC series and the Software tool Protocol Developer. In these workshops you will learn everything you need to know about our products and how you can easily realize your projects with Deutschmann.

For all products the necessary documents and tools can be found, free of cost, on www.deutschmann.com. Furthermore on the Deutschmann Technology Wiki, wiki.deutschmann.de, technological information is easily accessible for our customers and users, cross-linking application know-how and ensuring that the information is up to date.

Our experts in development, sales and support have the right solution for your demands.

Deutschmann
your ticket to all buses

UNIGATE® CL
- Protocol Converter for all devices with a serial interface

UNIGATE® IC
- Easy integration into your own electronics

UNIGATE® CX
- Making incompatible networks compatible

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