

# Connecting incompatible networks

**Deuschmann Automation (Germany) offers further features for the Unigate CX gateway series. The expanded communication functions refer to CANopen and to the CAN data link layer (ISO/OSI layer 2).**

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(Source: Deuschmann Automation)

The modular gateways integrate two Unigate CL modules. Over 120 variants are possible for interfacing of diverse field-bus and Industrial Ethernet networks. These are e.g. CANopen-to-DeviceNet, CANopen-to-Profibus-DP, and Ethercat-to-CANopen gateways.

On the CANopen side, the gateway supports the NMT slave functionality according to CiA 301 version 4.2. CANopen NMT master functionality can be added via script software. Up to 32 TPDOs (transmit process data objects) and 32 RPDOs (receive process data objects) can be implemented by the device. Thus, up to 255 byte of input data and 255 byte of output data can be exchanged between two diverse networks. Further, the node guarding, emergency message and the SDO (service data object) transmission are supported. Generic EDS files are configurable. Operation at bit-rates from 10 kBit/s to 1 Mbit/s is possible. Using the gateway on the CAN data link layer (ISO/OSI layer 2) the 11-bit and 29-bit CAN-identifiers are supported. Thereby, CAN data is transmitted as it is (1:1) to the field-bus on the other gateway side. Messages can be filtered by the gateway to transmit only the required information.

The DIN-rail mountable modules are available in the same dimensions (46 mm x 117 mm x 106 mm) for all network versions. The supply voltage ranges from 10 V<sub>DC</sub> to 33 V<sub>DC</sub>. Built-in isolation on the bus side is given. A 9-pin D-Sub connector is used for interfacing with a CAN/CANopen network. Protection against incorrect polarity, short circuit and overload is integrated. A typical current consumption at 24 V<sub>DC</sub> is 48 mA. The device can operate at temperatures from -40 °C to +85 °C.

Company's tool Wingate enables configuration of the gateway devices. For programming of applications, the Protocol Developer tool can be used. An additional debug interface is integrated. The tools are shipped with the device. Under the brand name Unigate the company provides fieldbus and Ethernet gateways, embedded solutions and protocol converters as modules for Industry 4.0 applications.

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