

UNIGATE IC

Ready-to-install bus nodes for all industry protocols

Ready-to-install UNIGATE IC bus nodes from Deutschmann Automation relieve automation manufacturers from having to develop interfaces and thereby help them offer products for various protocols with little one-time development effort. The all-in-one bus nodes in a 32 DIL housing have been designed for embedded solutions for direct integration into terminal devices. The modules comprise a microcontroller, flash, RAM, and a bus controller. They handle the complete communication on the bus side, thus reducing the workload of the application's microprocessor.

UNIGATE ICs are connected to the host processor via a UART interface. Thanks to the identical hardware and software interfaces and functionality of all UNIGATE IC devices, manufacturers can offer various protocol options to their customers. They only need to integrate an adaptation board with a socket for the bus modules or implement a socket directly on the device PCB. Then they can insert the UNIGATE IC model for any customer's choice communication protocol.

Advantage Deutschmann - Ready-to-install

- 70 - 80 % reduced development effort
- Time-to-Market gain
- Assembly consists of standard components
- Connection to the host processor via UART interface
- Expandable via the synchronous serial interface e.g. for
 - ‚Stand-alone‘-mode (without processor applications)
 - Shift-register connection (e.g. LED activation, read-in of switch positions)
 - Analog/digital converter (e. g. analog sensor, 4 - 20 mA current loop)
- Easy integration into your electronics
- Adaptation of the terminal device firmware is dropped
- All active components are included besides IC PN2Port
- Integrated isolation to FB interface
- Coverage of the major fieldbus and industrial Ethernet protocols with just one development

Technical data

- Complete CANopen NMT Slave
- Supports CANopen application layer CiA 301 V. 4.02
- Max. 255 bytes input data and 255 bytes output data
- Supports all relevant bit-rates
- UART-interface with up to 625 kbit/s
- Dimensions: 25 mm x 20 mm (W x H)
- Weight: approx. 9 g
- Voltage supply: +5 V_{DC}
- Current consumption: typ. 150 mA
- Operational temperature: -40 °C up to +85 °C
- Fieldbus (CANopen) functions: All specified NMT slave functions
- Fieldbus bit-rates: up to 1 Mbit/s
- Technology: ASIC
- Certificates: CE, EMC

Contact

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Features

NMT	NMT slave
Error control	Node guarding
Boot-up	Yes
Node ID range	From 1 to 127
Node ID	Hardware switch

	Software switch LSS-services
CANopen bit-rates	10 kbit/s 20 kbit/s 50 kbit/s 125 kbit/s 250 kbit/s 500 kbit/s 800 kbit/s 1 000 kbit/s
Type of bit-rate adjustment	Hardware switch (local interface) Software switch LSS-services (defined in CiA 305)
RPDOs	32
TPDOs	32
PDO modes	Event-triggered Triggered by event-timer Remotely-requested Synchronous (cyclic) Synchronous (acyclic)
PDO linking	No
PDO mapping	Dynamic
SDO server	2
SDO client	No
Emergency producer	Yes
Emergency consumer	No
Sync producer	No
Sync counter	Yes
Time stamp	No
Additional functions	LSS slave
CANopen version	CiA 301 V 3.0 CiA 301 V 4.1
Frameworks	CiA 305
Device profiles	CiA 401: CANopen device profile for generic I/O modules CiA 402: CANopen drives and motion control device profile CiA 404: CANopen device profile for measuring devices and closed-loop controllers CiA 405: CANopen interface and device profile for IEC 61131-3 programmable devices CiA 406: CANopen device profile for encoders CiA 408: CANopen device profile fluid power technology proportional valves and hydraulic transmissions CiA 410: CANopen device profile for inclinometer CiA 412: CANopen profiles for medical devices
Certified	No

