

# CAN-Ethernet Gateway V2

Extend CAN-networks via Ethernet or Internet

The CAN-Ethernet Gateway V2 enables the convenient access to remote CAN-bus networks via Ethernet. It also provides industry-grade measures for linking multiple distant CAN-bus segments to create one big logical network.

PC driver with programmer API  
Reliability-optimized binary protocol  
or generic ASCII protocol

Supports multiple connections to other  
CAN-Ethernet Gateways

Configurable transmission filters for  
optimized bandwidth usage

PC independent device configuration  
with password protection.



The CAN-Ethernet Gateway is based on a high-performance ARM9 controller which provides for a high data throughput even if several CAN interfaces are simultaneously active.

CAN messages are directly transferred on layer 2 level - independently from protocol. This allows for using the CAN-Ethernet Gateway with high-layer protocols such as CANopen®, DeviceNet or SDS.

Filters are easily configurable and ensure reasonable limitation of CAN messages to be transferred. Each CAN message is allocated a time stamp that assures time transparency for the message transfer. The CAN-Ethernet Gateway is able to administer several Ethernet connections simultaneously. Thus, it is possible to create complex net structures.

## Gateway mode

The CAN-Ethernet Gateway mode makes possible the device application as universal CAN-Ethernet interface. Thereby, the CAN-Ethernet Gateway is typically used at a PC as external CAN interface. Hence, it enables easy and flexible access to CAN systems via LAN or Internet. The scope of delivery includes drivers that facilitate using the CAN-Ethernet Gateway as PC interface for all CAN and CANopen software tools sold by SYS TEC electronic.

The driver API is documented in detail and supports the integration of the Gateway into own user applications. A simple ASCII protocol enables troublefree connection of the Gateway to different Host systems. From the host application, the message transfer with the CAN network takes place via socket-based TCP communication.

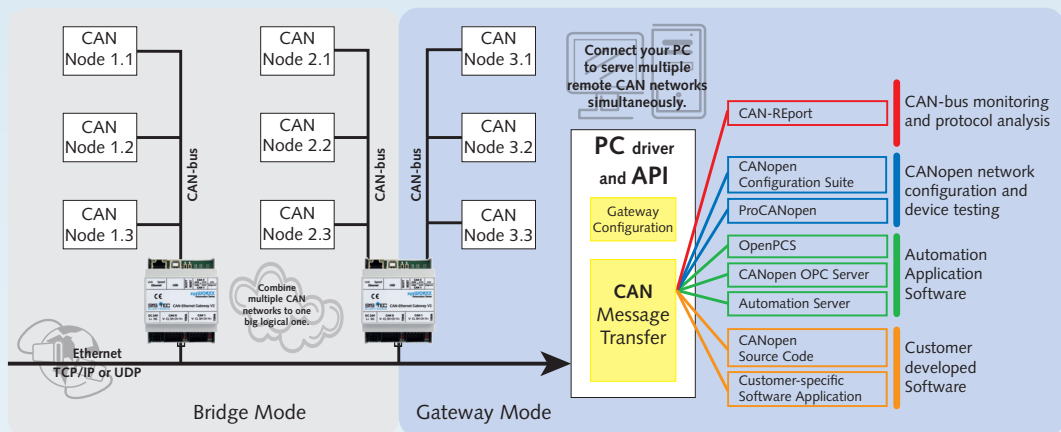
## Bridge mode

The Bridge mode allows for transparent coupling of CAN networks via LAN or Internet. By filtering messages, on the one hand it is possible to limit the data volume to be transferred, and on the other hand it is possible to systematically control the data exchange between subnets. For example, for the coupling of CANopen® networks it is feasible to only exchange PDOs and to exclude all other message types from being transferred.

## About SYS TEC electronic

SYS TEC electronic GmbH is a system house for distributed automation technology. We provide a comprehensive service from consulting to OEM integration.

Founded in 1990 in Germany SYS TEC has more than 20 years experience in customized development of microcontroller systems and industrial communication.



## Technical Specifications

| Features                            | CAN-Ethernet Gateway V2  |
|-------------------------------------|--|
| CAN channels                        | 1 up to 2  |
| Bit rate                            | 10kbps - 1Mbps   |
| PC connection                       | Ethernet interface (10/100 Mbit, connector RJ45)   |
| Operating temperature               | 0°C...+70°C  |
| CAN controller                      | SJA1000  |
| High-speed CAN                      | according ISO 11898 1/2, optical isolated  |
| CAN specification                   | 2.0A (11-bit identifier) / 2.0B (29-bit identifier)  |
| Timestamp                           | for received messages  |
| Transmit remote frames              | tunnelling of Remote Transmission Request (RTR) frames   |
| Mixed 11/29-bit identifiers         | ✓  |
| Timestamps (RX)                     | ✓  |
| High-speed CAN physical layer       | ✓  |
| Low-speed CAN physical layer        | ✓  |
| Listen-only mode                    | ✓  |
| Error counter                       | ✓ (1)  |
| Advanced Ethernet protocol features | Keep-alive checking; automatic reconnect; transmission triggers (message counter or timer based); each gateway may act as server or client; CAN message filtering; message buffering; hardware timestamps; combination of multiple CAN frames in one Ethernet package (configurable) |
| Gateway configuration               | via Telnet, FTP (remote maintenance) or USB port   |
| CAN connector                       | 2x 5pin spring type connector with optional Sub-D9 adapter cable   |
| Power supply                        | 24VDC +20% / -60%, 2pin screw type connector   |
| Current consumption (typical)       | 100mA  |
| Housing                             | IP20 Plastic housing, suitable for DIN/EN rail mounting  |
| Dimensions                          | 70 x 100 x 61 (LxWxH, in mm)   |
| Driver support                      | Windows application library (DLL) using a standard programming language (e.g. C/C++), generic ASCII protocol for integration with platforms other than Windows   |

### Related Products



sysWORXX CANopen I/O module series



USB-CANmodul series



CAN-REport - CAN-bus Analyser

### Ordering Information

3004010 CAN-Ethernet Gateway V2 with 1 CAN-bus interface

3004011 CAN-Ethernet Gateway V2 with 2 CAN-bus interfaces

For quotations please contact us:

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