CM CANopen

CANopen Master/Slave module
for the SIMATIC® S7-1200 PLC



The CM CANopen enables system integrators to connect any CANopen or CAN 2.0A device to the SIMATIC S7-1200 PLC. The module plugs into the communication module interface of the S7-1200 and acts as a bridge between the CANopen or CAN devices and the SIMATIC basic controller, allowing integrators to choose from a wider range of automation products when designing their system.

HIGHLIGHTS

- Plug-in CANopen master/slave module for SIMATIC S7-1200 basic controller
- Connects up to 16 CANopen slave devices per module in master mode
- 256 byte input and 256 byte output per module
- Up to 3 CM CANopen modules can be connected to one S7-1200
- LEDs provide diagnostic information on module, network and I/O status
- Fully integrated into the hardware catalog of the TIA Portal configuration environment
- CANopen configuration via the included CM CANopen Configuration Studio software
- Support for transparent CAN 2.0A for custom protocol implementation

- Pre-made function blocks available for easy PLC programming in TIA portal
- Complies to the specifications CiA 301 version 4.2 and CiA 302 version 4.1 published by CAN in Automation
- 3 year product guarantee

CONFIGURATION

CANOPEN CONFIGURATION AND TIA PORTAL INTEGRATION

The seamless integration into the SIMATIC world is one of the most essential requirements when extending of the SIMATIC automation system with networked fieldbus equipment that is not based on either PROFIBUS or PROFINET. HMS has addressed this need enabling a seamless integration of the CM CANopen module into TIA Portal. Configuration of the connected CANopen network is intuitively performed with the included CM CANopen Configuration Studio.

Once the configuration is finalized, the CANopen network configuration is downloaded into the CM CANopen module and localz stored in non-volatile memory. If one of the slave devices in the connected CANopen network has to be replaced, configuration data for this device will be downloaded automatically by the CM CANopen module once the device is reattached, significantly reducing down-times in high availability applications.






TECHNICAL SPECIFICATIONS

Power supply	+5 VDC +10 / -10%, supplied from S7-1200 controller
Current consumption	max. 200 mA at 5 V
Dimensions	Width: 30 mm, 1.18"; Height: 100 mm, 3.94"; Depth: 72 mm, 2.91"
Weight	120 g, 0.26 lb
Temperature	Operating: 0 °C to +60 °C, +32 °F to +140 °F; Non-operating: -40 °C to +70 °C, -40 °F to +158 °F
Relative humidity	Operating: 15 to 95% non condensing; Non-operating: 5 to 95% non condensing
Housing	Plastic housing, DIN rail (35•7,5/15), protection class IP20
Certification	CE, UL, cUL

TECHNICAL SERVICES

GETTING STARTED SUPPORT

We offer our customers support via phone, e-mail and Teamviewer in getting started the quickest way possible. This includes assistance in installation of the gateway, explaining the included programming examples, and giving an introduction to configuration.

CONFIGURATION SUPPORT

Our experienced engineers can support you in configuring the gateway to fit into your application. This includes analyzing your system setup and requirements, adapting the configuration of the gateway, optimizing your PLC program and configuration. Communication is usually via e-mail, phone and Teamviewer. Optionally we can offer to come to your site and work with your engineers directly at your system.

CAN 2.0A MODE

TRANSPARENT CAN 2.0A FUNCTIONALITY WITH THE CM CANOPEN

With the transparent CAN functionality, the CM CANopen module allows transmission of any CAN frame from the PLC regardless of the higher level CAN protocol and is capable of receiving a number of pre-defined CAN frames from the CAN network.

CAN 2.0A is the underlying protocol of many fieldbus protocols, CANopen being one of them. When the application disables CANopen functionality, it still retains access to this protocol. HMS provides PLC function blocks for this functionality that gives the designer of the PLC program the possibility to interpret/generate any CAN frame directly in the PLC program and thereby making it possible to implement customer specific protocols. Furthermore, it is also possible to connect nodes that only support customer specific CAN protocols to a PROFINET network using the S7-1200 controller as a gateway.

CAN 2.0A SUPPORTED FEATURES

- Possibility to implement any custom CAN based protocol which is interpreted or generated by the PLC
- Purpose built PLC function blocks available for easy integration in to TIA Portal
- CAN frames pass transparently through the CM CANopen module
- Supports the CAN 2.0A standard (11-bit CAN identifiers)
- Selectable baud rate from 20 kbit/s – 1 Mbit/s
- CANopen functionality is disabled while in transparent CAN mode

APPLICATION IMAGES



Slave devices on the CANopen network



Order number

021620-B	CM CANopen module, DSUB with screw terminals for subnetwork, CM CANopen Configuration Studio CD, USB configuration cable
on request	Getting Started Support: 4h package including assistance in installation of the gateway, explaining programming examples, introduction to configuration (no full system configuration). Support is offered via phone, e-mail and Teamviewer.
on request	Configuration Support: 1 day (=8h) package including preparation and analysis in cooperation with customer, workshop via Teamviewer or at customer site (optional), wrap-up including report, documentation upon agreement.

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