Anybus X-gateway – CANopen Master – EtherCAT Slave

The Anybus X-gateway CANopen provides a seamless connection between a EtherCAT network and a secondary CANopen sub-network. This makes it possible to integrate CANopen devices into a EtherCAT PLC system.

FAST COPYING OF I/O DATA
The X-gateway's primary function is fast transfer of cyclic I/O data between the two networks. I/O data from the EtherCAT network is written into CANopen objects that can be mapped into CANopen PDOs and vice versa. The gateway acts as a full Master/Manager on the CANopen network and as a Slave on the EtherCAT network. The data transmission between the two networks is completely transparent with a maximum data capacity of 510 bytes in each direction.

EASY CONFIGURATION - NO PROGRAMMING REQUIRED!
CANopen configuration can easily be made through the included Anybus Configuration Manager CANopen software, or with any other standard CANopen configuration tool. No programming skills are needed.

Features and benefits

- Fast copying of cyclic I/O data between a CANopen and EtherCAT network (5 ms)
- Fulll CANopen Master/Manager functionality, eliminates the need for an PLC controller on the CANopen network
- Connects up to 126 CANopen slave devices
- Proven and tested with all PLC manufacturers
- Easy CANopen configuration via the included Anybus Configuration Manager software. No programming required
- Robust stand-alone housing for use in harsh industrial environments
- Global free technical support and consultancy

CANopen Master/Manager Interface

- CANopen Master/Manager implementation according to the CANopen specification DS301 v4.0.2.
- Connects up to 126 CANopen slaves
- Network Management (NMT) messages, to configure and initialize the network.
- Supporting 128 Receive PDOs and 128 Transmit PDOs, each can transfer up to 8 bytes.
- Up to 510 bytes of cyclic data in each direction (PDO)
- PDO message types: COS (Change of State), Cyclic Synchronous, Acyclic Synchronous.
- Synchronization Object (SYNC) is used for synchronizing PDO communication.
- Heartbeat Mechanism to monitor the status of nodes.
- Node Guarding/Life Guarding Protocol provides possibility to guard slaves or the master.
- EMCY (Emergency Object) is used for error reporting.
- LSS master functionality
  Can also function as a CANopen Slave

EtherCAT Slave interface

EtherCAT Slave settings can be made by importing the provided .XML file into engineering tool of the controlling PLC.

- Complete EtherCAT slave according to DS 301 V4.022
- Supports CANopen over EtherCAT
- Max 512 bytes of Input and 512 bytes of Output data (PDO + SDO)
- Baudrate 100 Mbit/s full duplex
- 4 FMMU channels (can be used freely by the EtherCAT master for any purpose.)
- 4 SM channels
- Bit-oriented FMMU operation
- Position addressing, node addressing and logical addressing
- PDI Watchdog
- Output I/O Sync Manager Watchdog
- Integrated switch allowing for a daisy-chain topology
- 2x RJ45 EtherCAT connectors

Technical specifications

Dimensions (L●W●H)	120 x 75 x 27mm or 4,72 x 2,95 x 1,06"
Weight	150g or 0,33 lbs
Operating temperature	-25 to +55 °C or 0 to +131 °F
Storage temperature	-40 to +85 °C or -40 to +185 °F
Power supply	24 VDC
Current consumption	Typical 150mA
Configuration port	USB (USB to CAN cable not included)
Configuration Switches	On-board for CANopen node address and baud rate setting
CANopen connector	D-sub 9 Male (Included)
Fieldbus/Ethernet connector	(See interface details above)
Galvanic isolation	On both CAN and BUS/Ethernet side
Mechanical rating	IP20, NEMA rating 1
Mounting	DIN-rail (EN 50022 standard)
CANopen baudrate	20 kbit/s - 1 Mbit/s

CERTIFICATIONS

UL	File number: E203225	UL 508 Ind. Cont. Eq.
Hazardous Locations	CLASS 1, DIVISION 2, GROUPS A, B, C AND D, T4	ISA-12.12.01-2000
CE	2004/108/EC	EN 61000-6-4 EN 61000-6-2
ATEX	Zone 2, Cat 3 (except Modbus RTU)	EN 60079-11 EN 60079-15

File	Version	Size	Read online

Ordering information

Order Code	AB7300
Included components	Gateway Quick start documentation Connector terminals Power supply **not** included PLEASE NOTE: IXXAT USB-CAN configuration adapter (1.01.0281.12001) is not included and required for configuration of device Configuration software is available for download.
Accessories	1.01.0281.12001: XXAT USB-to-CAN V2 compact Anybus IPconfig Tool - Utility for module TCP/IP configuration (Windows 32/64-bit) Downloadable under "Files and Documentation"

3 year guarantee. For purchasing instructions and terms and conditions, see: <u>How to buy</u>