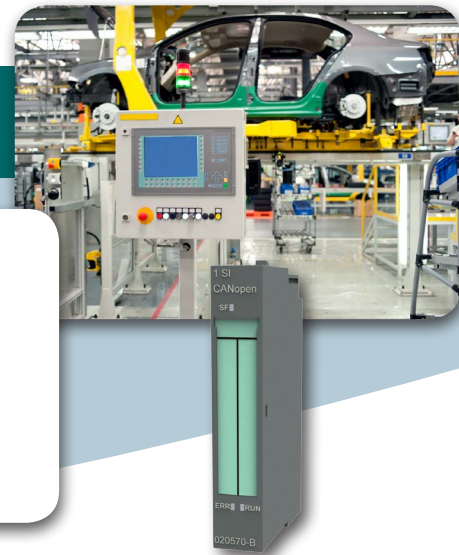


1 SI CANopen for SIMATIC ET200S

The 1 SI CANopen module from HMS Industrial Networks enables you to easily connect CAN and CANopen devices to your SIMATIC ET200S Distributed I/O System.



How it works

The 1SI CANopen is a plug-in module to extend the SIMATIC ET200S distributed IO system with CANopen devices.

Simply attach the 1SI CANopen to the ET200S and set up the data flow in the Anybus Configuration Manager CANopen software. The 1SI CANopen can be configured to be either Master or Slave. No programming is needed to create the configuration.

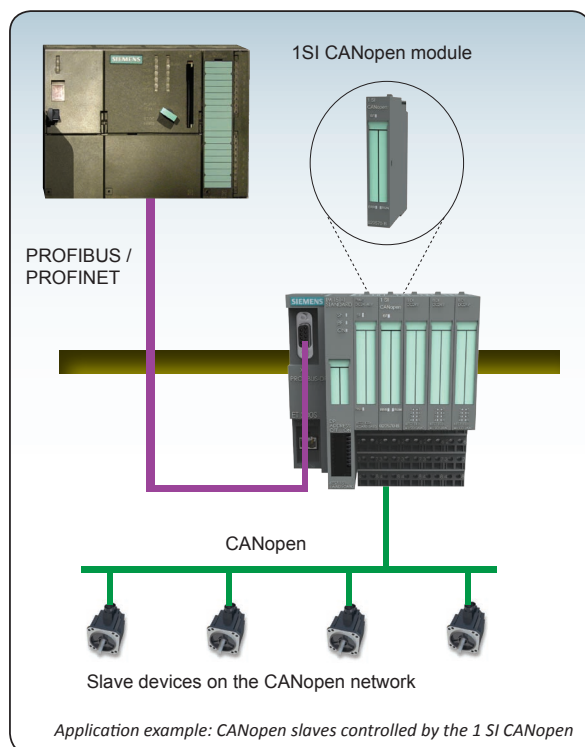
The module works with all SIMATIC ET200S Distributed I/O systems, with the exception of Basic and Compact.

In short

The 1SI CANopen is the fastest and easiest way to connect CANopen devices to the ET200S Distributed I/O System.

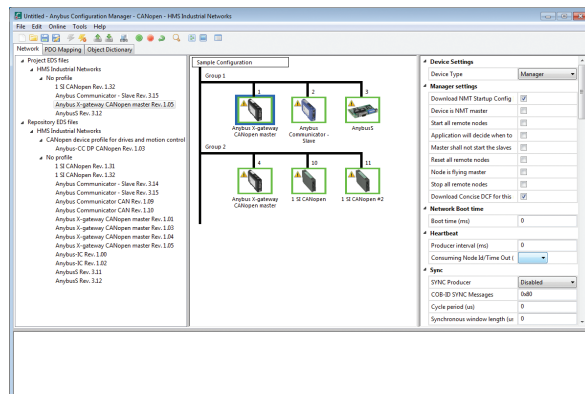
Features

- Plug-in CANopen Master/Slave module for SIMATIC ET200S Distributed I/O
- Connects up to 126 CANopen slave nodes in Master mode
- SIMATIC ET200S stand-alone operation supported
- Module "hot swap" supported which allows replacement of expansion modules without removing power
- Isochronous PROFINET mode supported in combination with CANopen synchronization mechanism
- Supports transparent CAN 2.0A for custom protocol handling
- Pre-made function blocks available for easy PLC programming in STEP 7 and TIA portal
- The module can be integrated into the hardware catalogue of the STEP 7 and TIA Portal configuration suite
- Anybus Configuration Manager optional available



Ordering information

Part Number	Description
020570-B	1 SI CANopen Master/Slave module for SIMATIC ET200S
021670	Anybus Configuration Manager – CANopen - Configuration Kit Includes: License, CD, USB-CAN adapter
021220-B	Additional Accessories: Start-up kit 1SI CANopen module, Anybus Configuration Manager CANopen, IXXAT USB-to-CAN V2 compact, 1SI CANopen network cable, CANopen device cable (DSUB) to CANopen network



Anybus Configuration Manager CANopen



HMS provides a full 3 year product guarantee

Connect. Configure. Done!

In the Anybus Configuration Manager CANopen software, you set up how you want the data to flow between the CANopen device and the ET200S. No programming is necessary.



TECHNICAL SPECIFICATIONS

1SI CANopen		
Max amount of slaves	126	
CANopen network connector	Connect through standard ET200S terminal modules	
Baud rate	Up to 1 Mbit/s	
I/O data	128 PDOs Receive/128 PDOs Transmit, 1024 bytes IN/OUT	
CANopen Standard	CiA 301 V4.2, CiA 302 V4.1, CiA 305 V2	
CAN	User-configurable data mapping for other CAN based protocols. Supports CAN 2.0 A (11 bit identifier only)	
Technical Details		Standard
Weight	40 g, 0.09 lb	
Dimensions (width)	15 mm, 0.59"	
Protection class	IP20	
Mounting	DIN rail (35-7,5/15)	EN 50022
Certifications		
UL	File number: E214107	UL 508 Ind. Cont. Eq.
CE	2004/108/EC	EN 55016-2-3:2007 Class A EN 61131-2:2007 Clause 8
Hardware Characteristics		
Galvanic isolation on subnetwork	Yes	
Environmental Characteristics		
Operating temp	0 to 60 °C, 32 to 140 °F	IEC 60068-2-1; IEC 60068-2-2
Storage temp	-40 to 70 °C, -40 to 158 °F	IEC 60068-2-1; IEC 60068-2-2
Relative Humidity	5-95 % non condensing (non operating) 15-95 % non condensing (operating)	IEC 60068-2-30
Installation altitude	Up to 2 000 m	
Immunity and Emission for Industrial Environment		
Electrostatic discharge	+/- 4 kV	EN 61000-4-2
Electromagnetic RF fields	10 V/m 80 MHz - 1 GHz; 3 V/m 1.4 GHz - 2.0 GHz 3 V/m 2.0 GHz - 2.7 GHz	EN 61000-4-3
Fast Transients	+/- 1 kV	EN 61000-4-4
Surge protection	+/- 1 kV	EN 61000-4-5
RF conducted interference	10 V/rms	EN 61000-4-6
Emission (at 3 m)	50 dB 30 MHz - 230 MHz; 57 dB 30 MHz - 1 GHz	EN 55016-2-3
Single Pack Accessories		
• Installation sheet		

CANopen features

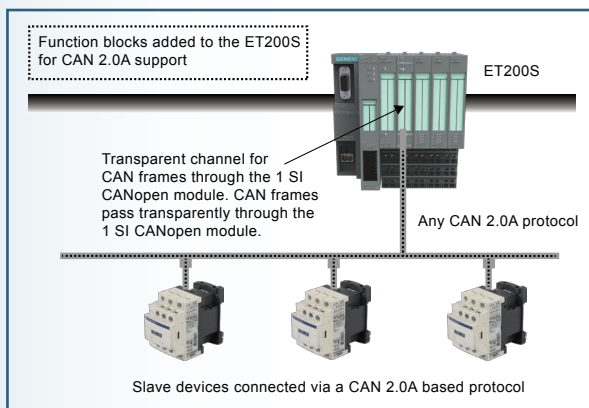
- CANopen implementation according to CANopen specification CiA301 rev. 4.2 and CANopen NMT Master according to CiA302 (Part 1-3)
- 128 Receive and 128 Transmit PDOs
- PDO (Process Data Objects) functionality, Push and Pull
- Supported PDO message types: COS (Change Of State), Cyclic Synchronous, Acyclic Synchronous
- SDO Client functionality (Expedited & Segmented Upload/Download Protocols)
- Configuration possibility via SDOs
- Heartbeat producer/consumer functionality
- Selectable baud rate from 20 kbit/s – 1 Mbit/s

Master specific features

- SDO (Service Data Objects) Server functionality
- NMT (Network Management Telegrams) Master to start-up and monitor the network
- Node guarding - producer/consumer
- Synchronization - producer/consumer
- LSS master functionality

Slave specific features

- Node guarding - consumer
- Synchronization - consumer
- LSS slave functionality
- Automatic bit rate detection



Transparent CAN 2.0A features

- Implements custom CAN protocols
- CAN frames pass transparently through the 1 SI CANopen module
- Special PLC function block available for easy integration into STEP 7 and TIA portal
- Able to transmit and receive CAN frames inside STEP 7 and TIA portal
- Supports the CAN 2.0A standard (11-bit CAN identifiers)
- Selectable baud rate from 20 kbit/s – 1 Mbit/s
- CANopen functionality disabled when using Transparent CAN mode

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The 1 SI CANopen module for the SIMATIC ET200S I/O System is developed, manufactured and maintained by HMS Industrial Networks AB in Sweden, in consent with Siemens AG, Germany. HMS Industrial Networks is a world leading supplier of industrial network technology. HMS develops and manufactures products used for interfacing automation devices to industrial networks. ET200, STEP, SIMATIC and TIA are trademarks of Siemens AG.

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