Anybus Communicator - EtherNet/IP adapter - EtherCAT slave

The Anybus Communicator EtherNet/IP adapter – EtherCAT slave is an industrial protocol gateway that allows you to seamlessly transfer data between PLC control systems over EtherNet/IP and EtherCAT networks.

Anybus Communicators are designed to ensure reliable, secure, and high-speed data transfer between different industrial Ethernet and Fieldbus networks. Very easy to install and deploy, the stand-alone gateways enable transparent data exchange between PLCs allowing you to both bridge and integrate legacy equipment into modern high-performance networks with only minimal changes to the software.

Anybus Communicators are built using the award-winning and proven Anybus NP40 industrial network processor providing network conformance, high performance, and reliability. When connecting between PLCs on different networks, extremely fast data cycling is enabled with data transfer of up to 1500 bytes in each direction, meeting most current control application needs as well as supporting future demands.

Quick installation is ensured thanks to the intuitive configuration, easy-to-understand documentation, and smart hardware and housing design.

Excellent performance

- Instan data transfer - The time required for data transfer between two PLCs is made up of the cycle time of the first network plus the cycle time of the second network. The internal data transfer in the communicator is negligible because it corresponds to the natural fluctuations of the network cycle times (jitter).
- Hardware-accelerated endian conversion (byte swap) - Communicators can change the data representation (endianness) using hardware-accelerated endian conversion to ensure that data is represented correctly in each PLC. You can even convert different parts of the data area in different ways to handle different types of data. This has no impact on performance, relieves the PLC of the data conversion task, and simplifies PLC programming.

Easy startup

- Dedicated Ethernet configuration port - no special cables required.
- Intuitive web-based drag-and-drop configuration interface - no need to install additional software.
- Front-facing connectors make it easy to connect cables, and the slim form factor saves space on the DIN rail.
- Troubleshoot with powerful diagnostics, including live data monitor, status screen, and support package.

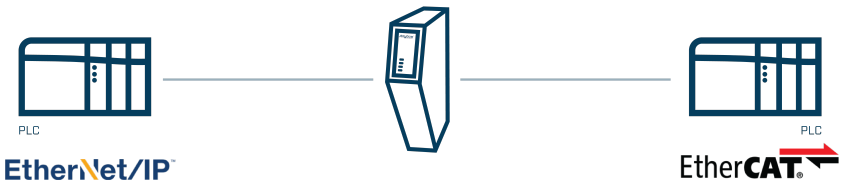
test security features

ecure boot functionality to detect firmware tampering and protect against malware attacks and infections.

- Security switch that locks your configuration and prevents any unauthorized access.
- The ports used in production have been disabled to prevent malware from being loaded via the ports.

For industrial environments

- Robust, compact housing.
- Industrial components are CE and UL tested and certified.
- Wide temperature range, -25°C to 70°C.
- Top-hat rail mounting for installation close to the connected devices, reducing wiring effort.



ETHERNET/IP FEATURES

- EtherNet/IP adapter mode
- Transfer up to 1 448 bytes to and from EtherNet/IP (2896 bytes total)
- Class 1 and Class 3 connection for process data
- Device Level Ring (beacon mode)
- Quick Connect class B
- Dual RJ45 Ethernet ports with 10/100 Mbit full duplex
- Daisy chaining with integrated switch

EtherCAT FEATURES

- EtherCAT slave according to IEC 61158 Type 12 (ETG.1000)
- Transfer up to 1 486 bytes to and from EtherCAT
- Network cycle time down to 100 µs
- Supports CANopen over EtherCAT
- Addressing modes: Logical, Node, and Position
- Commands: APRD, ARMW, APWR, BRD, BWR, FPRD, FPRW, FPWR, FRMW, LRD, LRW, LWR
- Synchronization modes: Free Run
- Dual RJ45 Ethernet ports with 10/100 Mbit full duplex
- Daisy chaining with integrated switch

GENERAL

Dimensions (L x W x H) with serial and power connector	98 x 27 x 144 mm 3.85 x 1.06 x 5,67 in
Weight	150 grams, 0.33 lb
Buttons and switches	Reset button and security switch
LEDs	Gateway, Network 1 & Network 2
IP rating	IP20
Housing material	PC ABS, UL 94 VO
Mounting	DIN rail (35 * 7,5/15)

ENVIRONMENT

Operating temperature	-25 to 70° C, -13 to 158° F
Storage temperature	-40 to 85° C, -40 to 185° F
Relative humidity	0-95% non condensing
Installation altitude	Up to 2 000 m

POWER

Input voltage	12 - 30 VDC
Current consumption	Typical: 160 mA @ 24V Max: 400 mA @ 12V
Power connector	3-pin plug with screw terminal
Protection	Reverse voltage protection and short circuit protection

ETHERNET PORTS

Ports	2+2 x Ethernet
Isolation	Galvanic isolation
Bitrate	10/100 Mbit full duplex
Connector	RJ45
Switch.	Dual port cut-through switch

ETHERNET/IP

Mode	Adapter (slave)
Messages	Implicit and explicit
Max no of scanner connections	1 input/output (exclusive owner) 3 listen only or input only
Input data size	1 448 bytes (with large forward open)
Output data size	1 448 bytes (with large forward open)
Network redundancy	Device Level Ring (DLR), beacon-based
Quick connect	Class B
Certification	Pending
Minimum cycle time	1 ms for class 1 connections, 100 ms for class 3 connections
EDS File	Available

HERCAT

Mode	EtherCAT slave according to IEC 61158 Type 12 (ETG.1000)
Addressing modes	Logical, node, and position
Synchronization modes	Free run
Input data size	1 486 bytes
Output data size	1 486 bytes
Network redundancy	Device Level Ring (DLR), beacon-based
Minimum cycle time	100 µs
Features	Supports CANopen over EtherCAT (CoE)
ESI File	Available

CERTIFICATIONS AND STANDARDS

UL	cULusfile number E214107
CE	2014/30/EU
KC	R-R-ABJ-Communicator
EMC	EN 61000-6-2 EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-6-4 EN 55032
Environment	IEC 60068-2-1 Ab IEC 60068-2-2 Bb IEC 60068-2-1 Ab IEC 60068-2-2 Bb IEC 60068-2-14 Nb IEC 60068-2-30 Db IEC 60068-2-78 Cab IEC 60068-2-78 Cab
Vibration and shock	IEC 60068-2-27 IEC 60068-2-6
Waste certification	WEE

CONFIGURATION

Configuration software	Web based configuration
Configuration ports	Dedicated 10/100 Mbit RJ45 Ethernet configuration port and Ethernet ports

CURITY

Secure boot	Ensures software authenticity
Security switch	Physical switch that enable/disable access to the web based configuration interface

PRODUCT PACKAGING

Content	Gateway, power connector, start-up guide, compliance information sheet
Box material	Cardboard

MEAN TIME BETWEEN FAILURE

MTBF	> 1 500 000 h, Telcordia Method I Case 3 at 30° C

File	Version	Size	Read online

Ordering Information

ORDER CODE: ABC4012

WARRANTY: 3 years

For purchasing instructions and terms and conditions, see: How to buy