



# Anybus Communicator – EtherCAT MainDevice – Common Ethernet

**Order Code: ABC3190**

## **EtherCAT MainDevice – Common Ethernet**

With the new Anybus Communicator, connecting EtherCAT SubordinateDevices (slaves) to Common Ethernet-based Control Systems (PLCs) has never been easier. The Communicator provides reliable and high-speed data transfer, making it perfect for applications that require large amounts of data to be transferred quickly. Thanks to its intuitive web interface and drag-and-drop functionality, configuring the Communicator is fast and straightforward. Furthermore, you have peace of mind knowing that the Communicator is built with proven and trusted Anybus technology.

With the Anybus Communicator, you can connect your devices with confidence and get back to focusing on what matters most – your business.

### **SCAN FOR ETHERCAT DEVICES**

With the Anybus Communicator, you can quickly and effortlessly scan the EtherCAT network for devices directly from the web user interface. The Communicator automatically identifies each device and maps its data to the control system, eliminating the need to manually search for device description files (ESI) and import them.

With the Anybus Communicator, scanning for EtherCAT devices is a simple and hassle-free process, allowing you to save time and focus on more important tasks.



### **Excellent performance**

- Instant data transfer - The time required for data 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.
- Scan for EtherCAT devices - automatically identifies each device and maps its data toward the control system.

Front-facing connectors make it easy to connect cables, and the slim form factor saves space on the DIN rail.

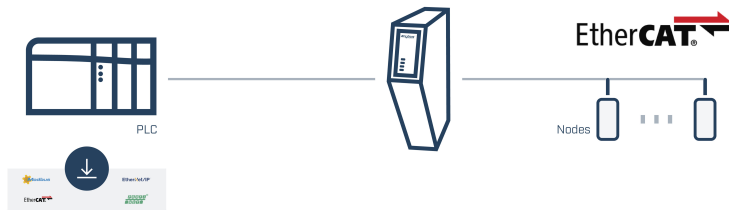
Troubleshoot with powerful diagnostics, including live data monitor, status screen, and support package.

### Latest security features

- Secure 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.



### EtherCAT Features

- EtherCAT MainDevice
- Transfer up to 1500 to and from EtherCAT (3000 bytes in total)
- 1 ms cycle time (configurable)
- Up to 24 EtherCAT SubordinateDevices (slaves)
- CANOpen Over EtherCAT (CoE)
- Cyclic data transfer using Process Data Objects (PDOs)
- Scan for EtherCAT SubordinateDevices (ESI files are not supported)
- Live list - Monitor EtherCAT SubordinateDevice status from control system
- Data exchange control – Enable/disable EtherCAT SubordinateDevice from control system
- Clone configuration – scan an EtherCAT network once and re-use the configuration for identical systems

The following features are not supported:

- Acyclic data transfer using Service Data Objects (SDOs) (only cyclic data transfer using PDOs supported)
- Ethernet over EtherCAT (EoE)
- Servo Profile over EtherCAT (SoE)
- Redundancy with ring topology
- Import EtherCAT Slave Information (ESI) files (EtherCAT SubDevices need to be scanned)
- Select SubDevice data to be mapped towards the control system (default data is always mapped)

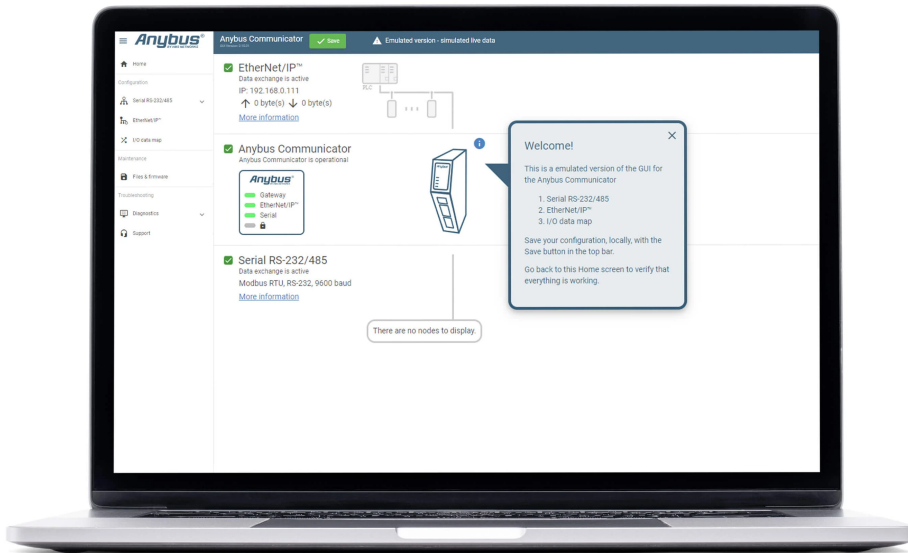
### Common Ethernet Features

- Common Ethernet
- Cover multiple protocols with a single gateway and reduce storage costs
- Supports EtherNet/IP adapter, Modbus TCP server or PROFINET IO device
- Transfer 1 448 bytes with EtherNet/IP, 1 500 bytes with Modbus TCP and 1 024 bytes with PROFINET to and from the gateway
- Download your protocol firmware from the product support page (free)
- Load your protocol firmware via the gateway web-configuration interface
- Dual RJ45 Ethernet ports with 10/100 Mbit full duplex
- Daisy chaining with integrated switch

**ANYBUS' SECOND-GENERATION GATEWAYS OFFER WORLD-LEADING USABILITY THANKS TO THE INTUITIVE GRAPHICAL USER INTERFACE (GUI).**

The User Interface enables you to:

- Change the configurations without installing additional software
- Use drag and drop functionality to configure the gateway
- Import or export files or firmware
- Analyze live data or export a log file for deeper analysis
- Use the support tab to open the relevant user guide or generate a customized support package
- Want to brand your interface? No problem! Customize the interface to meet your look



**INTERESTED?**

Click on the link to watch the User Interface in action. You can even try the user Interface before you buy!

→ [Learn more](#)

**GENERAL**

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

**ENVIRONMENT**

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

## POWER

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

## ETHERNET PORTS

<b>Ports</b>	2 x Ethernet ports per Ethernet protocol
<b>Isolation</b>	Galvanic isolation
<b>Bitrate</b>	10/100 Mbit full duplex
<b>Connector</b>	RJ45
<b>Switch.</b>	Dual port cut-through switch

## EtherCAT MainDevice

Mode	MainDevice
Cycle times supported	1, 2 ,4, 8, 16, 32, 64, 128 ms
Max number of SubDevices	24
Input data size	1500 bytes
Output data size	1500 bytes
Data transfer	Cyclical data transfer with PDOs (SDOs are not supported)
SubDevice discovery	Scan to discover SubDevices via a web user interface (ESI files are not supported)
SubDevice PDOs	Default data is mapped to the control system (can't pick what to map)

## PROFINET

<b>Mode</b>	PROFINET IO-Device (slave)
<b>Class</b>	A, B
<b>Communication channels</b>	Real Time Channel (RT)
<b>Input data size</b>	1 024 bytes
<b>Output data size</b>	1 024 bytes
<b>Minimum cycle time</b>	1 ms
<b>Max number of connections</b>	1 IO Controller Application Relationship + 2 Device Access Application Relationships
<b>Netload class</b>	Class III

<b>I&amp;M records</b>	Manufacturer data (I&M0), Tag information (I&M1), Date/Time (I&M2), Description (I&M3)
<b>SNMP</b>	Available
<b>GSDML File</b>	Available
<b>Certification</b>	PI Certified

#### ETHERNET/IP

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

#### MODBUS TCP

<b>Mode</b>	Server
<b>Max number of connections</b>	4
<b>Input data size</b>	1 500 bytes
<b>Output data size</b>	1 500 bytes

#### CERTIFICATIONS AND STANDARDS

<b>UL</b>	cULusfile number E214107
<b>CE</b>	2014/30/EU
<b>KC</b>	R-R-ABJ-Communicator (Pending for EtherCAT MainDevice)
<b>EMC</b>	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
<b>Environment</b>	IEC 60068-2-1 Ab IEC 60068-2-2 Bb

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<b>Vibration and shock</b>	IEC 60068-2-27 IEC 60068-2-6
<b>Waste certification</b>	WEE

## CONFIGURATION

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

## SECURITY

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

## PRODUCT PACKAGING

<b>Content</b>	Gateway, power connector, start-up guide, compliance information sheet
<b>Box material</b>	Cardboard

## MEAN TIME BETWEEN FAILURE

<b>MTBF</b>	> 1 500 000 h, Telcordia Method I Case 3 at 30° C
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File	Version	Size	Read online
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## Ordering Information

**ORDER CODE:** ABC3190

**WARRANTY:** 3 years

For purchasing instructions and terms and conditions, see: [How to buy](#).