



Anybus Communicator - EtherCAT

Order Code: ABC3061

Serial Master – EtherCAT slave

Integrate your serial RS-232/485 based industrial devices and equipment to EtherCAT control systems without any changes to the device. Just connect, configure and you're done.

The Anybus Communicator can transfer large amounts of data, is fast to configure thanks to its' drag and drop web interface and is built on trusted Anybus technology.

CONVERT ALMOST ANY TYPE OF SERIAL PROTOCOL

The Communicator can convert both standard serial protocols such as Modbus RTU and proprietary serial request/response or produce/consume based protocols.

TYPICAL SERIAL APPLICATIONS

Typical serial applications include variable frequency drives, sensors, actuators, human machine interfaces, barcode readers, RFID readers and industrial scales among others.

- Transfer up to 1 486 bytes of data in both directions
- Convert standard and proprietary RS-232/485 protocols
- Web-based drag and drop configuration interface
- -25 to +70 °C industrial temperature range
- Powered by award winning NP40 network processor

Transfer up to 1 486 bytes of data

Demand for more data is constantly growing and the Communicator has been equipped to handle the challenge. It can transfer 1 486 bytes from the PLC to the Gateway and 1 486 bytes from the gateway to the PLC, 2 972 bytes in total. Support for up to 150 Modbus commands means even complex configurations with multiple nodes can be handled with ease.

Drag and drop web interface

To make sure you spend as little time as possible configuring the Communicator, we have built a graphical and responsive web-based user interface. No software needed to be installed, just open your favorite web browser and get started.

Industrial temperature range

An industrial operating temperature range of -25 to +70 °C ensures the Communicator can excel under harsh conditions.

Powered by proven NP40 technology

The Communicator is built on the award-winning and proven Anybus NP40 network processor. With hundreds of thousands NP40:s used in Embedded applications across the world, it is the industry benchmark for reliable industrial communication.

Security switch

Even with sophisticated security measures, human error is still the main cause of security breaches. To simplify security, we added a physical security switch on the Communicator. It locks your configuration and prevents any access to the web-based configuration interface. Just flip it when your configuration is done and watch the padlock LED on the product light up.

Ethernet configuration port

With a dedicated Ethernet configuration port you don't need any special configuration cable. In addition, it is easy to connect to the gateway to monitor network traffic.

Optimized for DIN-rail mounting

The slim form factor, front facing network connectors, screw in serial cable connector and the neat cable tie ensure it is fast and simple to install and connect the Communicator.

Diagnostics

When opening the Communicator web interface you immediately see the status of the PROFINET connection and serial connection. You can even see the status of individual serial nodes. It's also equipped with a serial log and an event log for further analysis.

Support

Sometimes you run into a problem where you need help. That's why we have included a support page in the user interface with contact information. There is



even a button to generate a support package to simplify troubleshooting.

- Selectable RS-232/485 interface
- 3 ms serial update rate (selectable)
- Visual I/O data map to map serial data to industrial network
- Drag and drop frame builder for custom protocols, no programming required
- Trigger serial transactions from control system with triggers
- Transfer data between serial nodes with general data area
- Monitor and control serial nodes from control system with live list and data exchange control
- Ability to import Communicator Classic configuration file

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

TECHNICAL SPECIFICATIONS

SERIAL RS232/485 PORT

| | |
|---------------------|--------------------------|
| Ports | 1 x RS232/RS485 |
| Baud rate | 1200 bps to 128 kbps |
| Max stations | 31 |
| Isolation | Galvanic isolation |
| Connector | 7-pole Phoenix connector |
| Max nodes | 31 |

MODBUS RTU

| | |
|-------------------------------|-------------------------|
| Modes | Master |
| Functions supported | 1,2,3,4,5,6,15,16,22,23 |
| Max number of commands | 150 |
| Input data size | 1500 bytes |
| Output data size | 1500 bytes |

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 and Serial status |
| 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 x Ethernet |
| Isolation | Galvanic isolation |
| Bitrate | 10/100 Mbit full duplex |
| Connector | RJ45 |
| Switch. | Dual port cut-through switch |

ETHERCAT

| | |
|------------------------------|--|
| 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

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|----------------------------|--|
| UL | cUL _{US} file number E214107 |
| CE | 2014/30/EU |
| KC | R-R-ABJ-Communicator (Pending for EtherCAT MainDevice) |
| EMC | EN <u>61000-6-2</u> EN <u>61000-4-2</u> EN <u>61000-4-3</u> EN <u>61000-4-4</u> EN <u>61000-4-5</u> EN <u>61000-4-6</u> EN <u>61000-6-4</u> EN 55032 |
| Environment | IEC <u>60068-2-1</u> Ab IEC <u>60068-2-2</u> Bb IEC <u>60068-2-1</u> Ab IEC <u>60068-2-2</u> Bb IEC <u>60068-2-14</u> Nb IEC <u>60068-2-30</u> Db IEC <u>60068-2-78</u> Cab IEC <u>60068-2-78</u> Cab |
| Vibration and shock | IEC <u>60068-2-27</u> IEC <u>60068-2-6</u> |
| Waste certification | WEE |

CONFIGURATION

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

SECURITY

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|------------------------|---|
| 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 |

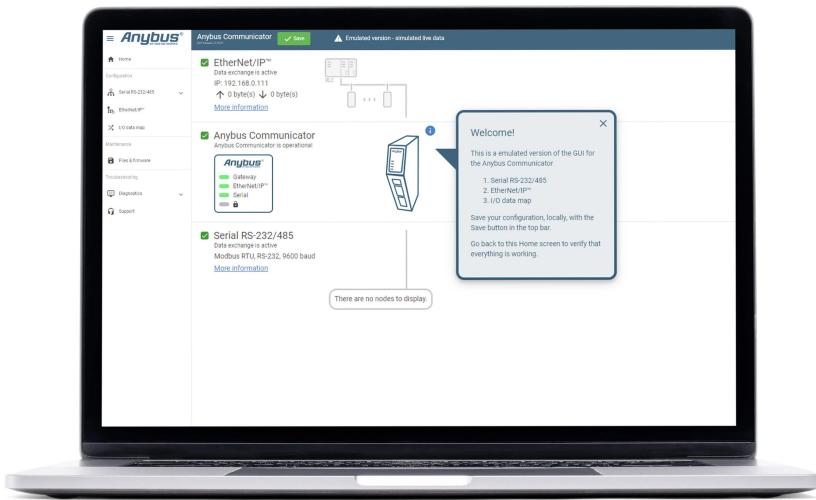
MEAN TIME BETWEEN FAILURE

| | |
|-------------|--|
| MTBF | > <u>1 500 000</u> h, Telcordia Method I Case 3 at 30° C |
|-------------|--|

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

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](#)

File

Version

Size

Read online

Ordering information

| | |
|----------------------------|--------------------------------|
| Order Code | ABC3061 |
| Included components | Anybus Communicator - EtherCAT |

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

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