



## Anybus Communicator - Common Ethernet - PROFIBUS DP device

The Anybus Communicator Common Ethernet - PROFIBUS DP device is an industrial protocol gateway that allows you to seamlessly transfer data between PLC control systems over an EtherCAT, Modbus TCP, or PROFINET network and a PROFIBUS network. The Ethernet interface is pre-loaded for PROFINET network but by updating the firmware the Ethernet interface can support EtherCAT, Ethernet/IP, Modbus TCP networks instead.

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 integrate legacy equipment into modern, high-performance networks without any changes to the hardware and 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

- Instant 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.

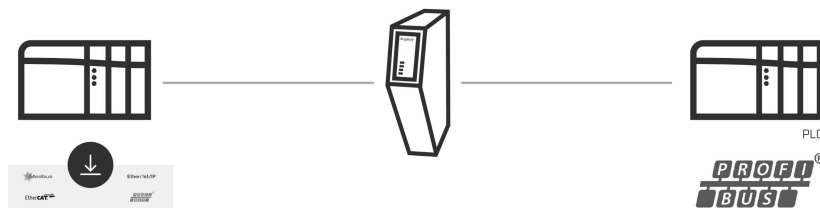
- Front-facing connectors make it easy to connect cables, and the slim form factor saves space on the DIN rail.
- Troubleshoot with powerful diagnostics, including live data monitor, status screen, and support package.

#### 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.



#### COMMON ETHERNET FEATURES

- Cover multiple protocols with a single gateway and reduce storage costs
- Supports EtherNet/IP adapter, EtherCAT slave, Modbus TCP server or PROFINET IO device (PROFINET IO device – EtherNet/IP adapter pre-loaded)
- Transfer 1 448 bytes with EtherNet/IP, 1486 bytes with EtherCAT, 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

#### PROFIBUS DP DEVICE FEATURES

- PROFIBUS DPV1 & DPV0 Device (slave)
- Transfer up to 244 bytes to and from PROFIBUS (488 bytes total)
- Automatic baud rate detection up to 12 Mbit/s
- PROFIBUS slave address setting via onboard rotary switches or web interface
- Supports Sync and Freeze and Watchdog
- Supports I&M 0-3
- 1x D-sub 9-pin female PROFIBUS connector
- GSD file available

## Communicator Web UI Intro



### 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 V0

<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+2 x Ethernet
<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

**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>Load 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>	Pending

**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>	Pending
<b>Minimum cycle time</b>	1 ms for class 1 connections, 100 ms for class 3 connections
<b>EDS File</b>	Available

**ETHERCAT**

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

**PROFIBUS**

<b>Mode</b>	PROFIBUS DPV1 Device (slave)
<b>Input data size</b>	244 bytes
<b>Output data size</b>	244 bytes
<b>Baud rate</b>	Automatic baud rate detection up to 12 Mbit/s
<b>Rotary switches</b>	PROFIBUS slave address setting via onboard rotary switches or web interface
<b>Features</b>	Supports Sync and Freeze and Watchdog
<b>I&amp;M records</b>	Manufacturer data (I&M0), Tag information (I&M1), Date/Time (I&M2), Description (I&M3)
<b>Connector</b>	1x D-sub 9-pin female PROFIBUS connector
<b>GSD</b>	GSD file available

**CERTIFICATIONS AND STANDARDS**

<b>UL</b>	cULUS file number E214107
<b>CE</b>	2014/30/EU
<b>KC</b>	R-R-ABJ-Communicator
<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 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
<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>	> 1500000 h, Telcordia Method I Case 3 at 30° C
-------------	---

File	Version	Size	Read online
------	---------	------	-------------

**Ordering information**

<b>Order Code</b>	ABC4091
<b>Included components</b>	Anybus Communicator - PROFIBUS slave

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

Copyright © 2020 HMS Industrial Networks - All rights reserved.