



## Anybus Communicator - PROFINET

**Order Code: ABC3013**

**Serial Master – PROFINET IO-Device**

Integrate your serial RS-232/485 based industrial devices and equipment to PROFINET 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.



### FEATURES & BENEFITS

- Transfer up to 1 024 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
- Security chip, security switch and secure boot

### Transfer up to 1 024 bytes of data

Demand for more data is constantly growing and the Communicator has been equipped to handle the challenge. It can transfer 1 024 bytes from the PLC to the Gateway and 1 024 bytes from the gateway to the PLC, 2 048 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.

**Security chip and secure boot**

To meet current and future security challenges, the Communicator is equipped with the latest Anybus security chip. Secure boot ensures the firmware has not been tampered with.

**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.

**SERIAL FEATURES**

- 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

**PROFINET FEATURES**

- PROFINET IO-Device (slave)
- Transfer up to 1 024 bytes to and from PROFINET
- 1 ms minimum cycle time
- Conformance class B, Real Time (RT)
- High robustness against network load, Netload Class III
- Dual RJ45 Ethernet ports with 10/100 Mbit full duplex
- Daisy chaining with integrated switch

**TECHNICAL SPECIFICATIONS**

**GENERAL**

|                                                        |                                           |
|--------------------------------------------------------|-------------------------------------------|
| Dimensions (L x W x H) with serial and power connector | 98 x 27 x 144 mm<br>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, PROFINET and Serial status |
| <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-pole Phoenix plug                                     |
| <b>Protection</b>          | Reverse voltage protection and short circuit protection |

## SERIAL RS232/485 PORT

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

## MODBUS RTU

|                               |                                  |
|-------------------------------|----------------------------------|
| <b>Modes</b>                  | Master                           |
| <b>Functions supported</b>    | 1, 2, 3, 4, 5, 6, 15, 16, 22, 23 |
| <b>Max number of commands</b> | 150                              |
| <b>Input data size</b>        | 1 024 bytes                      |

|                   |             |
|-------------------|-------------|
| Output data size. | 1 024 bytes |
|-------------------|-------------|

ETHERNET PORTS

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

PROFINET

|                           |                                                                                        |
|---------------------------|----------------------------------------------------------------------------------------|
| Mode                      | PROFINET IO-Device (slave)                                                             |
| Class                     | A, B                                                                                   |
| Communication channels    | Real Time Channel (RT)                                                                 |
| Input data size           | 1 024 bytes                                                                            |
| Output data size          | 1 024 bytes                                                                            |
| Minimum cycle time        | 1 ms                                                                                   |
| Max number of connections | 1 IO Controller Application Relationship + 2 Device Access Application Relationships   |
| Netload class             | Class III                                                                              |
| I&M records               | Manufacturer data (I&M0), Tag information (I&M1), Date/Time (I&M2), Description (I&M3) |
| SNMP                      | Available                                                                              |
| Certification             | Approved                                                                               |

CERTIFICATIONS AND STANDARDS

|     |                                                                                                                          |
|-----|--------------------------------------------------------------------------------------------------------------------------|
| UL  | cULUSfile number E214107                                                                                                 |
| CE  | 2014/30/EU                                                                                                               |
| KC  | R-R-ABJ-Communicator                                                                                                     |
| EMC | EN 61000-6-2<br>EN 61000-4-2<br>EN 61000-4-3<br>EN 61000-4-4<br>EN 61000-4-5<br>EN 61000-4-6<br>EN 61000-6-4<br>EN 55032 |
|     |                                                                                                                          |

|                            |                                                                                                                                                                    |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Environment</b>         | IEC 60068-2-1 Ab<br>IEC 60068-2-2 Bb<br>IEC 60068-2-1 Ab<br>IEC 60068-2-2 Bb<br>IEC 60068-2-14 Nb<br>IEC 60068-2-30 Db<br>IEC 60068-2-78 Cab<br>IEC 60068-2-78 Cab |
| <b>Vibration and shock</b> | IEC 60068-2-27<br>IEC 60068-2-6                                                                                                                                    |
| <b>Waste certification</b> | WEE                                                                                                                                                                |

**CONFIGURATION**

|                               |                                                                           |
|-------------------------------|---------------------------------------------------------------------------|
| <b>GSDML file</b>             | Available                                                                 |
| <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, serial 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 |
|-------------|-------------------------------------------------|

## Ordering information

|                            |                                |
|----------------------------|--------------------------------|
| <b>Order Code</b>          | ABC3013                        |
| <b>Included components</b> | Anybus Communicator - PROFINET |

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

Copyright © 2020 HMS Industrial Networks - All rights reserved.