Anybus Communicator – Serial Master to Modbus TCP slave

Item number: ABC3028-A

The Anybus Communicator Serial Master to Modbus TCP enables you to connect any RS-232/485 device or equipment to Modbus TCP control systems. Anybus Communicators ensure reliable, secure, and high-speed data transfers between different industrial networks. They include built-in cybersecurity features and are compliant with the Cyber Resilience Act (CRA). Thanks to our intuitive web-based user interface, they're also incredibly easy to use.



A protocol converter that connects serial devices to Modbus TCP control systems

Features and benefits

Easily convert proprietary RS-232/485 protocols

Convert RS-232/485 Request/Response or Produce/Consume protocol in just a few minutes. Use the drag-and-drop frame builder to build frames, insert/extract data, and handle complex variable frames.

Transfer 1500 bytes to and from Modbus TCP controller (PLC)

Transfer up to 1500 bytes in each direction (3000 bytes total) via dual 10/100 Mbit full-duplex RJ45 ports with an integrated switch for daisy-chaining. Modbus TCP Server supporting 4 connections.

Configure via web interface over Ethernet

With a graphical and responsive web interface, configuration is a breeze. In addition, there's no software to install and the dedicated Ethernet configuration port makes it easy to get started.

Drop-in replacement

Already using a Communicator Classic? Don’t worry, with legacy mode you can import your current serial configuration and continue using the same configuration in your controller/PLC.

Built for factory floors

The Gateway is made with industrial-grade components, verified to meet industry standards, and backed by a 5-year warranty. Its slim form factor, front-facing ports, and cable tie make DIN-rail installation easy.

Connect up to 32 Modbus RTU Servers (slaves)

Easily handles demanding applications thanks to support for up to 32 servers, 150 Modbus commands, a selectable 3 ms serial update rate, a graphical transaction builder, controller/PLC triggers and inter-node data exchange.

Instant data transfer

The Communicator transfers data instantly between networks, with processing time so low you don’t even need to count it, as it’s in line with network jitter. Just add the cycle times of both networks to get the total transfer time.

Diagnostics and support

The user interface shows connection status, allowing you to analyze serial traffic and monitor data going through the gateway. Monitor and control nodes via the Live List and Data Exchange Control features. Our global support team is ready to help if needed.

Secure and segment networks

Secure boot blocks malware, while a security switch locks configurations to prevent unauthorized changes. Network segmentation is inherent in the design, as each network is run separately, with only configured data transferred between networks.

Cyber Resilience Act (CRA)-ready

Developed under an IEC 62443-4-1 certified process, with HTTPS configuration, role-based access control, and a physical security switch to help meet CRA requirements.

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General

Net Width (mm)	27
Net Height (mm)	144
Net Depth (mm)	98
Net Weight (g)	150
Packed Width (mm)	35
Packed Height (mm)	170
Packed Depth (mm)	115
Packed Weight (g)	185
Operating Temperature °C Min	-25
Operating Temperature °C Max	70
Storage Temperature °C Min	-40
Storage Temperature °C Max	85
Current Consumption Type Value at Vcc Nom (mA)	90mA @ 24V DC (2.2W)
Current Consumption Max value at Vcc nom (mA)	125mA @24V DC (3W)
Input Voltage (V)	12-30V DC
Power Connector	3-pin, 5.08 Phoenix plug connector
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
Isolation	TRUE

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General

Content of Delivery	Gateway, power connector, start-up guide, compliance information sheet
Mounting	DIN-rail (EN 50022 standard)
Housing Materials	PC ABS, UL 94 VO
Packaging Material	Cardboard
Warranty (years)	5

Identification and Status

Product ID	ABC3028-A
Model Code	40-SER-ETH-B
Predecessor	AB7028-C, AB7028-C-5PACK
Country of Origin	Sweden
HS Code	8517620000
Dual Usage	No
Export Control Classification Number (ECCN) (Applies only to the U.S)	5A991.b.1

Physical Features

Connectors / Input / Output	1x 7-pin, 5.08 Phoenix plug connector, 2xRJ45, RJ45 Config port
Push Buttons	Factory reset
Contains Battery	No

Modbus-RTU Features

Modbus-RTU Mode	Client / Master
Modbus-RTU Supported Functionality	RS-232; RS485; Standard Modbus RTU Master; Custom Request / Responce commands; Custom Produce / Consume transactions; Trigger initated transactions; 7 or 8 data bit; None, Odd, Even Parity; 1 or 2 stop bit; Clear/Freeze
Modbus-RTU Functions Supported	1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 15, 16, 17, 20, 21, 22, 24
Modbus-RTU Baud Rate	1200,1800,2400,4800,7200,9600,14400,19200,35700,38400,57600,115200,128000 bit/s

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Modbus-RTU Features

Modbus-RTU Input Data Size	1500 bytes
Modbus-RTU Output Data Size	1500 bytes

Modbus-TCP Features

Modbus-TCP Mode	Slave / Server
Modbus-TCP Supported Functionality	Modbus specification V1.1b3; 4 connections; Daisy chaining
Modbus-TCP Functions Supported	1, 2, 3, 4, 5, 6, 15, 16, 23, 43/14
Modbus-TCP Bandwidth	10/100 Mbit/s
Modbus-TCP Input Data Size	1500 bytes
Modbus-TCP Output Data Size	1500 bytes

Serial Features

Max Stations	31
Connector	1x 7-pin, 5.08 Phoenix plug connector
Max Nodes	31
Baud Rate	1200,1800,2400,4800,7200,9600,14400,19200,35700,38400,57600,115200,128000 bit/s
Supported Functionality	RS-232; RS485; Standard Modbus RTU Master; Custom Request / Responce commands; Custom Produce / Consume transactions; Trigger initated transactions; 7 or 8 data bit; None, Odd, Even Parity; 1 or 2 stop bit; Clear/Freeze

Certifications and Standards

Protection Class IP	IP20
Product Certifications	CE, UL, KC, WEEE, EMC
UL Information	E214107: Ord.Loc UL 61010-1, CSA C22.2 No. 61010-1, UL 61010-2-201, CSA C22.2 No. 61010-2-201
Environment	EN 55016-2-3 Class A, EN 55032 Class A, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6
WEEE Category	IT and telecommunications equipment