Communicator™ RTU

With the Anybus Communicator RTU you can connect your non-networked device to any major fieldbus or industrial Ethernet network. The Communicator performs an intelligent conversion between the Modbus RTU protocol of the automation device and the chosen industrial network. This compact gateway consumes very little space in a switching cabinet and is easily mounted on a standard DIN rail.

Typical Industries

In-short

Anybus Communicator with a configurable serial RS-232/422/485 Modbus RTU interface to fieldbus and Industrial Ethernet.

Network:	Part No:
CANopen	AB7003
CC-Link	AB7008
ControlNet	AB7006
DeviceNet	AB7001
EtherCAT	AB7061
EtherNet/IP	AB7007
FIPIO	AB7011
Interbus	AB7012
Modbus Plus	AB7002
Modbus RTU	AB7010
Modbus TCP	AB7028
Profibus	AB7000
Profinet IO	AB7013

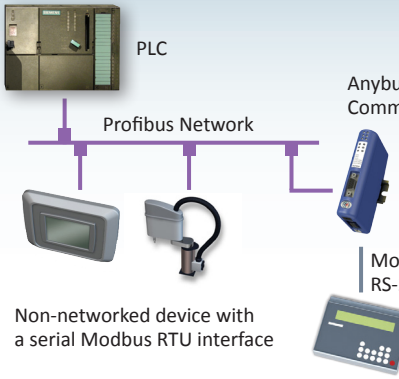
Optional accessories

USB-RS232 configuration adapter
Part No: 019570

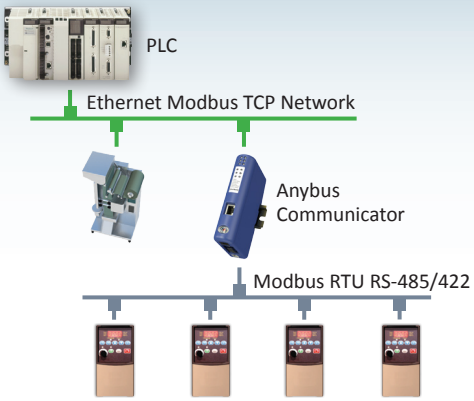
3 YEAR GUARANTEE

HMS provides a full 3 year product guarantee

APPLICATION EXAMPLE SINGLE-DROP



APPLICATION EXAMPLE MULTI-DROP



Features and benefits

- When converting the Modbus RTU protocol the Communicator acts as Master on the serial network
- Pre-defined 6 step Modbus RTU configuration wizard
- Enables any automation device with a serial RS-232/422/485 Modbus RTU Slave interface to participate on a network
- No hardware or software changes are required for the connected automation device
- Compatible with PLC's from leading manufacturers such as Siemens, Rockwell, Schneider Electric etc.
- Complete protocol conversion performed by the Communicator, no PLC function blocks required
- Handy Save/Load function means a completed configuration can be re-used for many other installations
- Global free technical support and consultancy
- See www.anybus.com for application notes and instruction videos on how to configure the gateway

Anybus Configuration Manager software

Anybus Configuration Manager supports all network versions of the Communicator.

This Windows™ based software has an easy-to-use user interface and requires no programming.

For industrial devices with a serial Modbus RTU interface, HMS takes away the hassle of scripting and serial frame building by using an easy 6 step visual configuration wizard software.

Anybus Configuration Manager can be used to configure additional protocols such as DF1, CAN, ASCII or customer specific protocols.

TECHNICAL SPECIFICATIONS

Communicator RTU		
Protocol	Modbus RTU Master	
Max stations	31 (with RS485/422)	
Baud rate	1,2-57,6 kbit/s	
Physical standards	RS232/422/485	
Modbus Commands	0x01 Read Coils, 0x02 Read Discrete Inputs, 0x03 Read Holding Registers, 0x04 Read Input Registers, 0x05 Write Single Coil, 0x06 Write Single Register, 0x07 Read Exception Status, 0x08 Diagnostics, 0x0B Get Comm Event Ctr, 0x0C Get Comm Event Log, 0x0F Write Multiple Coils, 0x10 Write Multiple Registers, 0x11 Report Slave ID, 0x14 Read File Record, 0x15 Write File Record, 0x16 Mask Write Register, 0x17 Read/Write Multiple Registers, 0x18 Read FIFO Queue Customized commands can be created (in the Anybus Configuration Manager)	
Technical Details		**Standard**
Weight	150 g, 0,33 lb	
Dimensions (L•W•H)	120•75•27 mm, 4,72•2,95•1,06"	
Protection class	IP20, NEMA rating 1	
Enclosure material	PC ABS, UL 94	
Installation position	Any	
Mounting	DIN rail (35•7,5/15)	EN 50022
Certifications		
UL	File number: E203225	UL 508 Ind. Cont. Eq.
Hazardous Locations	CLASS 1, DIVISION 2, GROUPS A, B, C AND D, T4	ISA 12.12.01
CE	2004/108/EC	EN 61000-6-4 EN 61000-6-2
Electrical Characteristics		
Power	24 VDC +/- 10 %	
Current consumption	Max 300 mA, Typical 100 mA	
Hardware Characteristics		
Reverse voltage protection	Yes	
Short circuit protection	Yes	
Galvanic isolation on subnetwork	Yes	EN 60950-1
MTTF	>550 000 h	Telcordia Issue 2, Method 1 Case 3 at 30 °C
Environmental Characteristics		
Operating temp	0 to 55 °C, 32 to 131 °F	
Storage temp	-40 to 85 °C, -40 to 185 °F	
Relative Humidity	0-95 % non condensing	
Installation altitude	Up to 2 000 m	
Immunity and emission for industrial environment		
Electrostatic discharge	+/- 4 kV	EN 61000-4-2
Electro magnetic RF fields	10 V/m 80 MHz - 1 GHz 3 V/m 1,4 GHz - 2,0 GHz 1 V/m 2,0 GHz - 2,7 GHz	EN 61000-4-3
Fast Transients	+/- 1 kV	EN 61000-4-4
Surge protection	+/- 1 kV	EN 61000-4-5
RF conducted interference	10 V/rms	EN 61000-4-6
Emission (at 10 m)	40 dB 30 MHz - 230 MHz 47 dB 30 MHz - 1 GHz	CISPR 16-2-3
Single Pack Accessories		
• Resource CD • Configuration Cable (RS232) Port • Installation sheet • Dsub with screw terminals for subnetwork		

NETWORK SPECIFIC FEATURES

1 = Network connector, **2** = Baud rate,
3 = I/O data, **4** = Other

CANopen	**1** = DSUB9M **2** = Up to 1 Mbit/s **3** = 512 byte IN/OUT **4** = Supports profile CIA DS301 V4.02
CC-Link	**1** = 1*5p; 5.08 Phoenix Plug **2** = Up to 10 Mbit/s **3** = 128 IO points, 16 word IN/OUT **4** = Up to 4 occupied stations
ControlNet	**1** = 2*BNC Coax + RJ45 (NAP) **2** = 5 Mbit/s **3** = 450 byte IN/OUT **4** = Communications adapter, profile n. 12
DeviceNet	**1** = 1*5p; 5.08 Phoenix Plug **2** = 125-500 kbit/s **3** = 512 byte IN/OUT **4** = Communications adapter, profile n. 12
EtherCAT	**1** = 2*RJ45 **2** = 100 Mbit/s **3** = 512 byte IN/OUT **4** = DS301 V4.02 compliant, 4 FMMU Channels
EtherNet/IP	**1** = RJ45 **2** = 10/100 Mbit/s **3** = 512 IN/OUT **4** = EtherNet/IP group 2 and 3 server. Modbus/TCP slave functionality
FIPIO	**1** = DSUB9M **2** = 1 Mbit/s **3** = 32 words IN/OUT (cyclic) **4** = Data exchange according to FIPIO Extended Device Profile, Class 0
Interbus	**1** = DSUB9F + DSUB9M **2** = 500 kbit/s, 2 Mbit/s **3** = 20 byte IN/OUT (process data), 512 bytes IN/OUT (with PCP) **4** = Interbus PCP V.2.0
Modbus Plus	**1** = DSUB9F **2** = 1,2-57,6 kbit/s **3** = 32 words IN/OUT (global data), 512 words IN/OUT (register data) **4** = -
Modbus RTU	**1** = DSUB9F **2** = 1,2-57,6 kbit/s **3** = 512 byte IN/OUT **4** = RS232 and RS485
Modbus TCP	**1** = RJ45 **2** = 10/100 Mbit/s **3** = 512 byte IN/OUT **4** = Class 0, 1 and partially class 2 slave functionality
Profibus	**1** = DSUB9F **2** = Up to 12 Mb **3** = 244 IN/OUT (416 total) **4** = Profibus DP (IEC 61158)
Profinet IO	**1** = RJ45 **2** = 100 Mbit/s **3** = 512 byte IN/OUT **4** = RT Communication and Cyclic data exchange

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