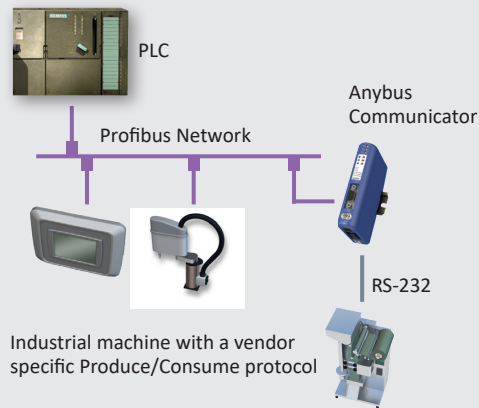# Anybus®
BY HMS NETWORKS

Communicator™

With the Anybus Communicator you can connect your non-networked device to any major fieldbus or industrial Ethernet network. The Communicator performs an intelligent conversion between the RS-232/422/485 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.
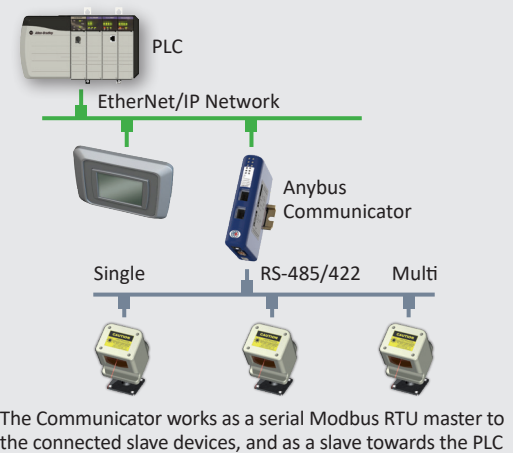
Typical Industries

Application example single-drop

PLC

Anybus Communicator

Profibus Network

RS-232

Industrial machine with a vendor specific Produce/Consume protocol

Application example multi-drop

PLC

EtherNet/IP Network

Anybus Communicator

Single   RS-485/422   Multi

The Communicator works as a serial Modbus RTU master to the connected slave devices, and as a slave towards the PLC

| Network:	Part No:
CANopen	AB7003
CC-Link	AB7008
CC-Link IE Field	AB7077
ControlNet	AB7006
DeviceNet	AB7001
EtherCAT	AB7061
EtherNet/IP	AB7007
EtherNet/IP 2-port	AB7072
FIPIO	AB7011
Interbus	AB7012
Modbus Plus	AB7002
Modbus RTU	AB7010
Modbus TCP	AB7028
PROFIBUS	AB7000
PROFINET IO	AB7013
PROFINET IRT	AB7078

Optional accessories

USB-RS232 configuration adapter
Part No: 019570

Features and benefits

- Convert almost any RS-232/422/485 Request/Response or Produce/Consume protocol in just a few minutes — For example Modbus RTU, ASCII, DF1.

- Pre-defined for Modbus RTU. Avoid the hassle of scripting and serial Modbus frame building with the 6-step Modbus RTU wizard.

- No hardware or software changes are required for the connected automation device

- Compatible with PLCs 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

- Included "Anybus Configuration Manager" with flexible serial frame building capabilities

- Versions with Dual Port switched Ethernet allows for daisy chaining and eliminates the need for external switches

- Global free technical support and consultancy

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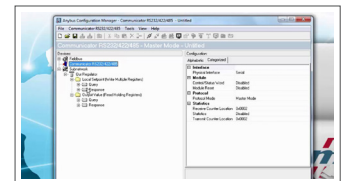
This Windows™ based software has an easy-to-use user interface and requires no programming.

You can convert almost any RS-232/422/485 Request/Response or Produce/Consume protocol — Modbus RTU, ASCII, DF1, or user-specific.

The Communicator requires no PLC function blocks or programming. Just connect, configure and you're done.

3 YEAR GUARANTEE

HMS provides a full 3 year product guarantee

HMS

TECHNICAL SPECIFICATIONS

Communicator RS-232/422/485

Protocol	Configurable RS-232/422/485 based produce/consume, query/response ASCII
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)
DF1 Services	0x01 Integrity Check, 0x02 Read Diagnostics, 0x03 Read Data, 0x04 Write Data Customized services can be created (in the Anybus Configuration Manager) Technical Details Standard

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 ℃

Environmental Characteristics

Operating temp	0 to 55 ℃, 32 to 131 ℉
Storage temp	-40 to 85 ℃, -40 to 185 ℉
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

• Configuration Cable (RS232) Port • Installation sheet • Dsub with screw terminals for sub network

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** = 896 IO points, 128 word IN/OUT **4** = Up to 4 occupied stations, 8 extension cycles
CC-Link IE Field	**1** = 2*RJ45 **2** = 1 Gbit/s Fixed **3** = 832 IO Points, 204 word IN/OUT **4** = CC-Link IE Field Network, Intelligent Device Station
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** = 504 IN/OUT **4** = EtherNet/IP group 2 and 3 server. Modbus/TCP slave functionality
EtherNet/IP 2-port	**1** = 2*RJ45 **2** = 10/100 Mbit/s **3** = 504 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
PROFINET IRT - 2 port	**1** = 2*RJ45 **2** = 100 Mbit/s **3** = 220 byte IN/OUT **4** = RT and IRT Communication

Status LEDs

Configuration switches (if existing, behind lid)

Network connector (see number 1 above)

DIN rail connector

Configuration port

RS subnetwork connector (DSUB 9-Pole female)

Power connector with screw terminals

Twincomm

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