

# Communicator™

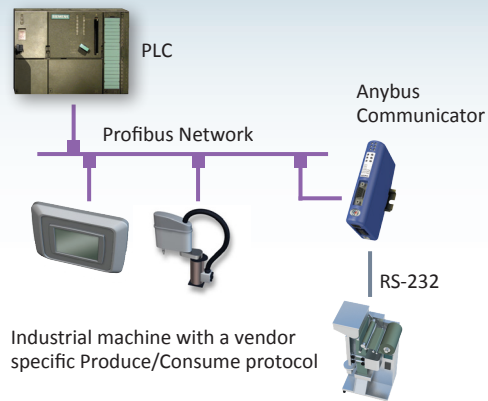
With the Anybus Communicator you can connect your non-networked device to any major fieldbus or industrial Ethernet network. The Communicator performs an intelligent conversion between the RS-232/422/485 protocol of the automation device and the chosen industrial network. This compact gateway consumes very little space in a switching cabinet and is easily mounted on a standard DIN rail.



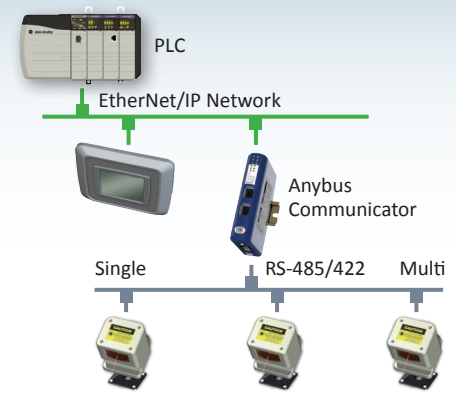
## Typical Industries



### APPLICATION EXAMPLE SINGLE-DROP



### APPLICATION EXAMPLE MULTI-DROP



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

## Network:

CANopen  
CC-Link  
CC-Link IE Field  
ControlNet  
DeviceNet  
EtherCAT  
EtherNet/IP  
EtherNet/IP 2-port  
FIPIO  
Interbus  
Modbus Plus  
Modbus RTU  
Modbus TCP  
PROFIBUS  
PROFINET IO  
PROFINET IRT

## Part No:

AB7003  
AB7008  
AB7077  
AB7006  
AB7001  
AB7061  
AB7007  
AB7072  
AB7011  
AB7012  
AB7002  
AB7010  
AB7028  
AB7000  
AB7013  
AB7078

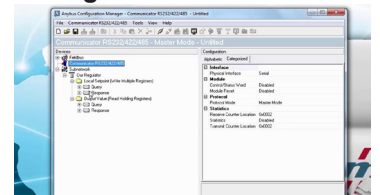
## Optional accessories

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.



HMS provides a full 3 year product guarantee



## 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	
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 Vrms	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 sub network		

## NETWORK SPECIFIC FEATURES

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

<b>CANopen</b>	1 = DSUB9M 2 = Up to 1 Mbit/s 3 = 512 byte IN/OUT 4 = Supports profile CIA DS301 V4.02
<b>CC-Link</b>	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
<b>CC-Link IE Field</b>	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
<b>ControlNet</b>	1 = 2*BNC Coax + RJ45 (NAP) 2 = 5 Mbit/s 3 = 450 byte IN/OUT 4 = Communications adapter, profile n. 12
<b>DeviceNet</b>	1 = 1*5p; 5.08 Phoenix Plug 2 = 125-500 kbit/s 3 = 512 byte IN/OUT 4 = Communications adapter, profile n. 12
<b>EtherCAT</b>	1 = 2*RJ45 2 = 100 Mbit/s 3 = 512 byte IN/OUT 4 = DS301 V4.02 compliant, 4 FMMU Channels
<b>EtherNet/IP</b>	1 = RJ45 2 = 10/100 Mbit/s 3 = 504 IN/OUT 4 = EtherNet/IP group 2 and 3 server. Modbus/TCP slave functionality
<b>EtherNet/IP 2-port</b>	1 = 2*RJ45 2 = 10/100 Mbit/s 3 = 504 IN/OUT 4 = EtherNet/IP group 2 and 3 server. Modbus/TCP slave functionality
<b>FIPIO</b>	1 = DSUB9M 2 = 1 Mbit/s 3 = 32 words IN/OUT (cyclic) 4 = Data exchange according to FIPIO Extended Device Profile, Class 0
<b>Interbus</b>	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
<b>Modbus Plus</b>	1 = DSUB9F 2 = 1,2-57,6 kbit/s 3 = 32 words IN/OUT (global data), 512 words IN/OUT (register data) 4 = -
<b>Modbus RTU</b>	1 = DSUB9F 2 = 1,2-57,6 kbit/s 3 = 512 byte IN/OUT 4 = RS232 and RS485
<b>Modbus TCP</b>	1 = RJ45 2 = 10/100 Mbit/s 3 = 512 byte IN/OUT 4 = Class 0, 1 and partially class 2 slave functionality
<b>PROFIBUS</b>	1 = DSUB9F 2 = Up to 12 Mb 3 = 244 IN/OUT (416 total) 4 = Profibus DP (IEC 61158)
<b>PROFINET IO</b>	1 = RJ45 2 = 100 Mbit/s 3 = 512 byte IN/OUT 4 = RT Communication and Cyclic data exchange
<b>PROFINET IRT - 2 port</b>	1 = 2*RJ45 2 = 100 Mbit/s 3 = 220 byte IN/OUT 4 = RT and IRT Communication



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