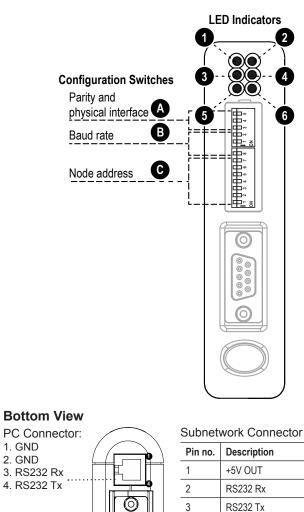
## Anybus Communicator - Modbus RTU Interface

#### Module Front



4

5

6

7

8

9

NC

Signal GND

RS422 Rx+

RS422 Rx-

RS485+ / RS422 Tx+

RS485- / RS422 Tx-

#### LED Indicators

LED no	Indication	Meaning
1 (Bus error)	Red Off	Bus error, more than 10% of all queries have incorrect CRC Normal operation
2 (Bus ready)	Green Red Off	Bus ready Timeout error No power
3 (Processing)	Flashing green Off	Processing query No query is currently being processed
4 (HW settings status)	Red Off	Not configured; operating at 19200bps; will only respond to broadcast messages Using switch settings, normal operation
5 (Subnet Status)	Flashing green Green Red	Running, one or more transaction errors Running Transaction error/timeout or subnet stopped
6 (Device Status)	Off Alternating red/green Green Flashing green Red Flashing red	Power off Invalid or missing configuration Initializing Running Bootloader mode Note the flash sequence pattern and contact the HMS support department

Parity and phys	ical inter	face	Sw. 3	Sw. 4	Sw. 5		
(reserved)			OFF	OFF	-		
No parity, two stop	bits		OFF	ON	-		
Even parity, one sto	op bit		ON	OFF	-		
Odd parity, one sto	o bit		ON	ON	-		
RS232			-	-	ON		
RS485			-	-	OFF		
Baud rate	Sw. 8	Sw. 1	Sw. 2				
(reserved)	OFF	OFF	OFF	-			
1200 bps	OFF	OFF	ON	-			
2400 bps	OFF	ON	OFF	-			
4800 bps	OFF	ON	ON	-			
9600 bps	ON	OFF	OFF	-			
19200 bps	ON	OFF	ON	-			
38400 bps	ON	ON	OFF	-			
57600 bps	ON	ON	ON	_			
Node address	Sw. 1	Sw. 2	Sw. 3	Sw. 4	Sw. 5	Sw. 6	Sw.
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	OFF	OFF	OFF	OFF	OFF	OFF	ON
2	OFF	OFF	OFF	OFF	OFF	ON	OFF
3 - 126	-	-	-	-	-	-	-
127	ON	ON	ON	ON	ON	ON	ON

### Modbus RTU Connector

	Pin no	Description	
$5  (\text{female})  1$ $( \textcircled{\textcircled{o}} \end{array}{\textcircled{o}} \end{array} \\ $	Housing	Protective Earth (PE)	
	1, 4, 9	Not connected	
	2	RS232 Tx	
	3	RS232 Rx	
	5	GND bus	
	6	+5V bus out	
	7	RS485- D0 (B)	
	8	RS485+ D1 (A)	

#### **Accessories Checklist**

The following items are required for installation:

- Anybus Communicator Resource CD (Includes configuration . software, manuals and application notes)
- RS232 configuration cable
- Subnetwork connector •
- Modbus RTU network cable and connector (not included)

#### Installation and Startup Summary

- Mount the Communicator on the DIN-rail.
- Connect the Communicator to the Modbus RTU network.
- Connect the module to the subnetwork.
- Turn on the module (+24 V DC).
- Connect the configuration cable between the module and the PC containing the Anybus Configuration Manager software.
- Configure the module using Anybus Configuration Manager.
- Configure and start the Modbus RTU network.

Further information and documents about this product can be found at the product pages on www.anybus.com.

Power:

1. +24 V DC · .. 2. GND

#### **UL Certification**



#### Warnings

- WARNING EXPLOSION HAZARD SUBSTITUTION OF ANY COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.
- WARNING EXPLOSION HAZARD WHEN IN HAZARDOUS LOCATIONS, TURN OFF POWER BEFORE REPLACING OR WIRING MODULES.
- WARNING EXPLOSION HAZARD DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NONHAZARDOUS.

# Additional installation and operating instructions

Max Ambient Temperature: 55°C (for Hazloc environments)

Field wiring terminal markings (wire type (Cu only, 14-30 AWG)).

Use 60/75 or 75°C copper (Cu) wire only.

Terminal tightening torque must be between 5-7 lb-in (0.5 - 0.8  $\ensuremath{\mathsf{Nm}}\xspace$ ).

Use in overvoltage category 1 pollution degree 2 environment.

Installed in an enclosure considered representative of the intended use.

Secondary circuit intended to be supplied from an isolating source and protected by overcurrent protective devices installed in the field sized per the following:

Control-circuit Wire Size		Maximum Protective Device Rating		
AWG	(mm <sup>2</sup> )	Amperes		
22	(0.32)	3		
20	(0.52)	5		
18	(0.82)	7		
16	(1.3)	10		
14	(2.1)	20		
12	(3.3)	25		

**EMC** Compliance (CE)



This product is in accordance with the EMC directive 89/336/EEC, with amendments 92/31/EEC and 93/68/EEC through conformance with the following standards:

**EN 50082-2 (1993)** EN 55011 (1990) Class A

EN 61000-6-2 (1999) EN 61000-4-3 (1996) 10 V/m EN 61000-4-6 (1996) 10 V/m (all ports) EN 61000-4-2 (1995) ±8 kV Air Discharge ±4 kV Contact discharge EN 61000-4-4 (1995) ±2 kV Power port ±1 kV Other ports EN 61000-4-5 (1995) ±0.5 kV Power ports (DM/CM) ±1 kV Signal ports

Further information and documents about this product can be found at the product pages on www.anybus.com.