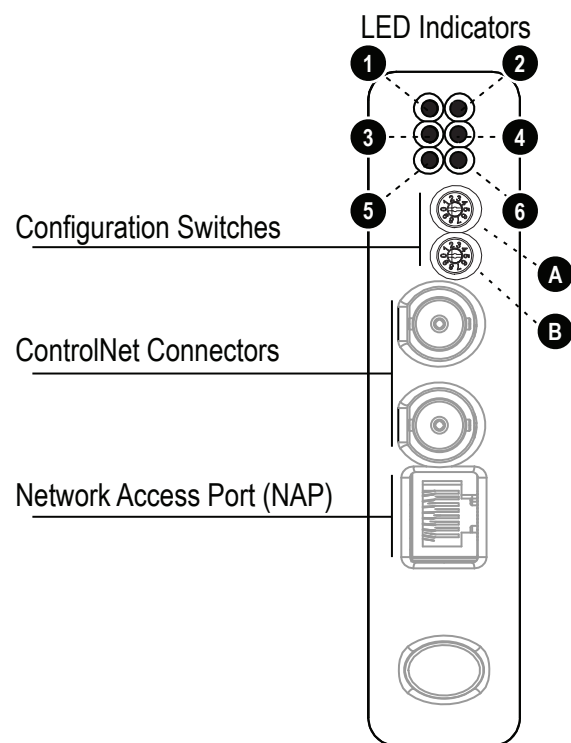


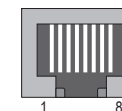
Module Front



LED Indicators

| LED no | Indication | Meaning |
|-------------------|--------------------------------|--|
| 1 (Channel A) | A and B; Off | Device not initialized |
| 2 (Channel B) | A and B; Red | Device must be restarted or repaired |
| | A and B; Alternating red/green | Bus controller self test |
| | A and B; Flashing red | Incorrect node configuration; e.g. duplicate Mac ID |
| | A or B; Off | Channel disabled, depends on network configuration |
| | A or B; Green | Normal operation |
| | A or B; Flashing green | Temporary error or node not configured |
| | A or B; Flashing red | Media fault or no other nodes available |
| | A or B; Flashing red / green | Incorrect network configuration |
| 3 (Module Status) | Flashing green | Waiting for initialization |
| | Green | Initialized |
| | Flashing red | Minor fault, recoverable |
| | Red | Major fault, unrecoverable |
| 4 (Module Owned) | Green | A connection has been opened |
| | Off | No connection opened |
| 5 (Subnet Status) | Flashing green | Running, but one or more transaction errors |
| | Green | Running |
| | Red | Transaction error/timeout or subnet stopped |
| 6 (Device Status) | Off | Power off |
| | Alternating red/green | Invalid or missing configuration |
| | Green | Initializing |
| | Flashing green | Running |
| | Red | Bootloader mode |
| | Flashing red | Note the flash sequence pattern and contact the HMS support department |

Network Access Port (NAP)



| Pin no | Description |
|---------|-----------------------|
| 1, 8 | GND_REF |
| 2, 7 | NC |
| 3 | TX_H |
| 4 | TX_L |
| 5 | RX_L |
| 6 | RX_H |
| Housing | Protective Earth (PE) |

Accessories Checklist

The following items are required for installation:

- Anybus Communicator Resource CD (Includes configuration software, manuals, EDS file and application notes)
- RS-232 configuration cable
- Sub-network connector
- ControlNet network cable and connector (not included)

Installation and Startup Summary

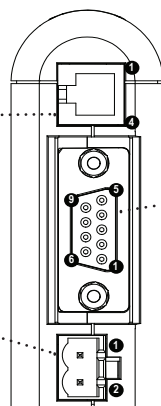
1. Mount the Communicator on the DIN-rail.
2. Connect the Communicator to the ControlNet network.
3. Connect the Communicator to the sub-network.
4. Power up the Communicator (+24V DC).
5. Connect the configuration cable between the Communicator and the PC containing the Anybus Configuration Manager software (ACM).
6. Configure the Communicator using ACM.
7. Include the Anybus Communicator EDS file in the ControlNet configuration tool.
8. Configure and start the ControlNet network.

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

Bottom View

PC Connector:

1. GND
2. GND
3. RS232 Rx
4. RS232 Tx



- Power:
1. +24 V DC
 2. GND

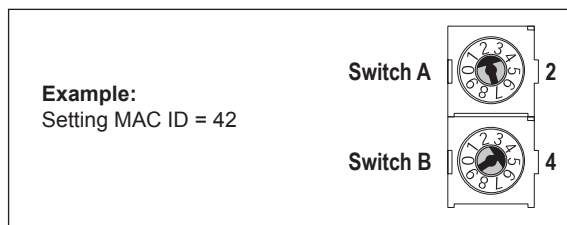
Subnetwork Connector

| Pin no. | Description |
|---------|--------------------|
| 1 | +5V OUT |
| 2 | RS232 Rx |
| 3 | RS232 Tx |
| 4 | NC |
| 5 | Signal GND |
| 6 | RS422 Rx+ |
| 7 | RS422 Rx- |
| 8 | RS485+ / RS422 Tx+ |
| 9 | RS485- / RS422 Tx- |

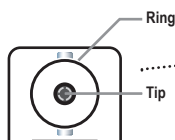
Configuration Switches A B

Set the ControlNet MAC ID by using the configuration switches (A and B) as follows:

$$\text{MAC ID} = (\text{switch B} * 10) + (\text{switch A} * 1)$$



ControlNet Connectors



| Pin | Description |
|------|------------------------|
| Tip | ControlNet signal line |
| Ring | Shield |

UL Certification



IND: CONT. EQ.
FOR HAZ LOC.
CL I, DIV 2
GP A,B,C,D
TEMP
CODE
E203225

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.**

Attention!

- **ATTENTION – RISQUE D’EXPLOSION – LE REMPLACEMENT DE TOUT COMPOSANTS INVALIDE LA CERTIFICATION CLASS I, DIVISION 2.**
- **ATTENTION – RISQUE D’EXPLOSION – EN ZONE EXPLOSIVE, VEUILLEZ COUPER L’ALIMENTATION ÉLECTRIQUE AVANT LE REMPLACEMENT OU LE RACCORDEMENT DES MODULES.**
- **ATTENTION – RISQUE D’EXPLOSION – NE PAS DÉCONNECTER L’ÉQUIPEMENT TANT QUE L’ALIMENTATION EST TOUJOURS PRÉSENTE OU QUE LE PRODUIT EST TOUJOURS EN ZONE EXPLOSIVE ACTIVE.**

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 Nm).

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 ²) | 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 |

ODVA Compliance



ControlNet CONFORMANCE TESTED™ is a certification mark of ODVA.

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.