The Anybus X-gateway CANopen makes it possible to integrate CANopen devices into any other PLC system. The X-gateway CANopen series provide CANopen Master (Manager) /Slave connectivity to all popular fieldbus and industrial Ethernet networks. The gateways' high reliability and flexibility make them an indispensable connectivity tool.

Features and Benefits
- Provides CANopen Master or Slave functionality on one side, and fieldbus/Ethernet slave functionality on the other side
- Allows transparent transfer of I/O data between CANopen and another network
- CANopen master functionality allows connection of up to 126 CANopen slaves
- Dual port Ethernet with switch functionality for EtherNet/IP, Modbus-TCP and PROFINET IRT versions
- Ethernet versions with IT functions such as dynamic Web server, supporting downloadable customer specific web pages
- CANopen NMT Master and Configuration Manager functionality

Applications Examples

<table>
<thead>
<tr>
<th>Network 1</th>
<th>Network 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROFINET</td>
<td>CANopen Master</td>
</tr>
<tr>
<td>CANopen</td>
<td>PROFINET</td>
</tr>
<tr>
<td>CANopen</td>
<td>PB10000</td>
</tr>
<tr>
<td>Ethernet</td>
<td>CANopen Master</td>
</tr>
</tbody>
</table>

CANopen Configuration

The X-gateway CANopen can be configurared with the "Anybus Configuration Manager CANopen" which is included in the price of the X-gateway and can be downloaded from www.anybus.com.

The PC connect to the CANopen network via a USB-CAN adapter (ordered separately)

In addition, any standard CANopen configuration tool can be used to configure the CANopen interface.

The uplink fieldbus or Ethernet slave interface is configured with a standard device description file (GSD/EDS) and the standard engineering tool of the PLC. No programming required.
### TECHNICAL SPECIFICATIONS

**X-gateway CANopen**

- **Max amount of slaves**: 126
- **CANopen network connector**: DSUB9M
- **Baud rate**: Up to 1 Mbit/s
- **I/O data**: 128 PDOs Receive/128 PDOs Transmit, 510 bytes IN/OUT
- **EN 61000-6-4**
- **PDOs Receive/128 PDOs Transmit, 510 bytes IN/OUT**

### Technical Details

<table>
<thead>
<tr>
<th>Weight</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 g, 0.33 lb</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions (LxWxH)</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>120×19×27 mm, 4,72×2,95×1,06”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Protection class</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP20, NEMA rating 1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enclosure material</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC ABS, UL 94</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Installation position</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mounting</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIN rail (35×7,5/15)</td>
<td>EN 50022</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Certifications</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL 508 indu. Cont. Eq.</td>
<td>EN 61000-6-2</td>
</tr>
</tbody>
</table>

### Electrical Characteristics

<table>
<thead>
<tr>
<th>Power</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 VDC +/- 10 %</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current consumption</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical 150 mA</td>
<td></td>
</tr>
</tbody>
</table>

### Hardware Characteristics

<table>
<thead>
<tr>
<th>Reverse voltage protection</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Short circuit protection</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Galvanic isolation on subnetwork</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

### Environmental Characteristics

- **Operating temp**: -25 to 55 °C, -13 to 131 °F (see number 1 above)
- **Storage temp**: 40 to 85 °C, -40 to 185 °F
- **Relative Humidity**: 5-95 % non condensing
- **Installation altitude**: Up to 2,000 m

### Immunity and Emission for Industrial Environment

- **Electrostatic discharge**: +/- 4 kV
- **Electromagnetic-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
- **Fast Transients**: +/- 1 kV
- **Surge protection**: +/- 1 kV
- **RF conducted interference**: 10 V/m
- **Emission (at 10 m)**:
  - 40 dB 30 MHz - 230 MHz
  - 47 dB 30 MHz - 1 GHz

### Single Pack Accessories

- Resource CD
- Installation sheet
- DSUB with screw terminals for subnetwork

---

### NETWORK SPECIFIC FEATURES

**SLAVE / ADAPTER / SERVER / DEVICE**

- **CANopen**
  - 1 = Network connector, 2 = Baud rate, 3 = I/O data, 4 = Other
  - 1 = DSUB9M
  - 2 = Up to 1 Mbit/s
  - 3 = 510 byte IN/OUT
  - 4 = Supports profile CIA DS301 V4.02

- **ControlNet**
  - 1 = 2WRNC Cnx = + RT and IRT Communication
  - 2 = 2 kbit/s
  - 3 = 510 byte IN/OUT
  - 4 = Media redundancy support

- **DeviceNet**
  - 1 = 47 dB 30 MHz - 1 GHz
  - 2 = 244 IN/OUT (328 total)
  - 3 = 510 byte IN/OUT
  - 4 = Unconnected Message Manager

- **EtherCAT - 2 port**
  - 1 = 2kRj45
  - 2 = 10/100 Mbit/s
  - 3 = 510 byte IN/OUT
  - 4 = Device Level Ring (DLR)

- **Modbus RTU - 2 port**
  - 1 = 2kRj45
  - 2 = 1,2-57,6 kbit/s
  - 3 = 510 byte IN/OUT

- **Modbus-TCP - 2 port**
  - 1 = 2kRj45
  - 2 = 10/100 Mbit/s
  - 3 = 510 byte IN/OUT
  - 4 = Security framework

- **PROFIBUS**
  - 1 = 2kRj45
  - 2 = Up to 12 Mbit/s
  - 3 = 510 byte IN/OUT

- **PROFINET - 2 port**
  - 1 = 2kRj45
  - 2 = 100 Mbit/s
  - 3 = 220 byte IN/OUT

- **PROFINET IRT - 2 port**
  - 1 = 2kRj45
  - 2 = 12 Mbit/s
  - 3 = 220 byte IN/OUT

---

### NETWORK SPECIFIC FEATURES

- **Status LEDs**
- **Network connector** (see number 1 above)
- **DIN rail connector with PE**
- **USB port**
- **CANopen connector (DSUB 9-Pole male)**
- **2-pole Phoenix plug**

---

HMS Industrial Networks – Worldwide

- **HMS - Sweden (HQ)**
  - Tel: +46 35 17 29 00 (Halmstad HQ)
  - E-mail: sales@hms-networks.com
  - Tel: +46 35 17 29 00 (Halmstad HQ)
  - E-mail: sales@hms-networks.com

- **HMS - China**
  - Tel: +86 010 8532 3183
  - E-mail: cn-sales@hms-networks.com
  - Tel: +86 010 8532 3183
  - E-mail: cn-sales@hms-networks.com

- **HMS - France**
  - Tel: +33 688 368 034 (Mulhouse office)
  - E-mail: fr-sales@hms-networks.com
  - Tel: +33 688 368 034 (Mulhouse office)
  - E-mail: fr-sales@hms-networks.com

- **HMS - Germany**
  - Tel: +49 721 989777-000
  - E-mail: ge-sales@hms-networks.com
  - Tel: +49 721 989777-000
  - E-mail: ge-sales@hms-networks.com

- **HMS - Finland**
  - Tel: +358 404 557 381
  - E-mail: sales@hms-networks.com
  - Tel: +358 404 557 381
  - E-mail: sales@hms-networks.com

- **HMS - Italy**
  - Tel: +39 039 59662 27
  - E-mail: it-sales@hms-networks.com
  - Tel: +39 039 59662 27
  - E-mail: it-sales@hms-networks.com

- **HMS - Japan**
  - Tel: +81 45 478 5340
  - E-mail: jp-sales@hms-networks.com
  - Tel: +81 45 478 5340
  - E-mail: jp-sales@hms-networks.com

- **HMS - Switzerland**
  - Tel: +41 61 511342-0
  - E-mail: it-sales@hms-networks.com
  - Tel: +41 61 511342-0
  - E-mail: it-sales@hms-networks.com

---

Anybus® is a registered trademark of HMS Industrial Networks AB, Sweden, USA, Germany and other countries. Other marks and words belong to their respective companies. All other product or service names mentioned in this document are trademarks of their respective companies.

Part No: MMA203 Version 6 07/2019 - © HMS Industrial Networks - All rights reserved - HMS reserves the right to make modifications without prior notice.