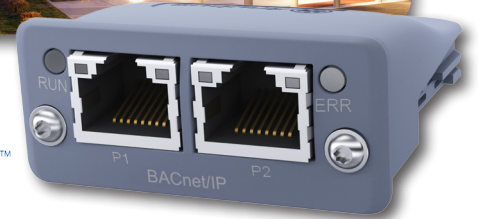# CompactCom™ M40 for BACnet/IP

The Anybus CompactCom M40 for BACnet/IP is a complete communication module which is integrated into an industrial device to make it communicate on a BACnet/IP network. BACnet/IP is commonly used in buildings and facility management systems.

By implementing the CompactCom concept into your product line, you will have instant access to any other industrial network by simply plugging in another Anybus module.



## Why worry about networking?

*Once you have implemented the Anybus CompactCom concept, you don't have to worry about network upgrades or certifications. HMS takes care of the network maintenance, so you can focus on your products.*

## If you need fast BACnet communication

The Anybus CompactCom M40 enables fast communication between your device and a BACnet/IP network.

The module supports generic device profiles and comes with a dual port switch implemented in the network processor — the award-winning Anybus NP40.

The communication profile is the B-ASC with data sharing support for analog, binary and multi state value objects types. The module also supports Change of Value notifications and Alarm/Event functionality.

In addition, the module supports web functions such as a webserver for creating Dynamic Webpages which include reading and writing of ADIs and process data, email sending and FTP for downloading of user webpages.

Through the socket interface the module provides the possibility to implement other TCP/UDP protocols using the modules TCP/IP stack.

### Features and benefits

- A complete, interchangeable communication module with connectors

- Short in-design with free assistance from HMS ensures a fast time to market

- Event-based interface method enables easy access to input and output data at any time

- Fast, event-based application hardware interfaces: 8/16-bit parallel and highspeed SPI. I/O (shift register interface) is also available

- BACnet/IP is one of the networks included in the Anybus CompactCom Common Ethernet concept meaning that you can use the same hardware and download the Ethernet network of choice.

- Solid security: Mandatory software signatures prevent unauthorized software to be downloaded to the module. Furthermore, encryption is used to prevent illicit copying.

## CompactCom 40-series

The M40 is part of the Anybus CompactCom 40-series — communication products in chip, brick and module formats. The 40-series is especially suitable for modern and demanding industrial applications.
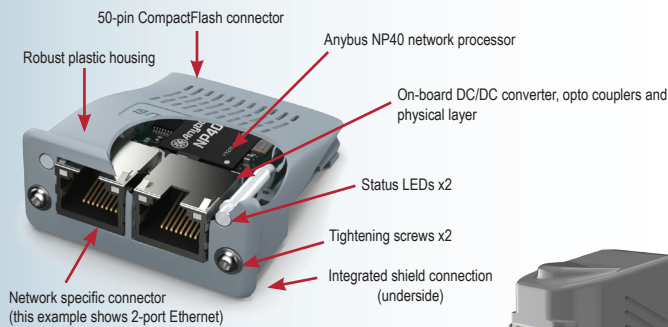


## Innovative mounting

The Anybus module plugs into a CompactFlash™ connector which is integrated onto the host PCB. HMS offers a CompactFlash connector specifically tailored for the CompactCom module.

# Technical specifications

| Technical Details | |
|---|---|
| Dimensions (L • W • H) | 52•50•22 mm,  2.04•1.97•0.86"<br>51•37•16 mm,  2.01•4.46•0.63" (modules without housing) |
| Protection class | IP20 |
| RoHS Compliance | Yes |
| Galvanically isolated network interface | Yes |
| Application interfaces | - 8/16-bit parallel (30 ns access)<br>- High speed SPI, baudrate configurable up to 20 MHz<br>- I/O (shift register interface, cyclical update time 82 µs)<br>- UART (for backwards compatibility with 30-series, max 625kbps) |
| Profile support | B-ASC |
| Connectors | 2x RJ45 100 Mbit/s) |
| LED indicator | Integrated on front (with housing), via application interface (without housing).<br>Indicates Module Status and Network Status. |

| Certifications | |
|---|---|
| CE, CULUS, RoHS | Yes |
| Network conformance | Yes (Pretested internally) |

| CE - Declaration of Pre-Conformity | |
|---|---|
| Emission EN 61000-6-4 | EN55016-2-3 Radiated emission<br>EN55022 Conducted emission |
| Immunity EN 61000-6-2 | EN61000-4-2 Electrostatic discharge, EN61000-4-3 Radiated immunity.<br>EN61000-4-4 Fast transients/burst, EN61000-4-5 Surge immunity.<br>EN61000-4-6 Conducted immunity. |

| Electrical Characteristics | |
|---|---|
| Power requirements | 3.3 VDC, +/- 0.15 VDC |

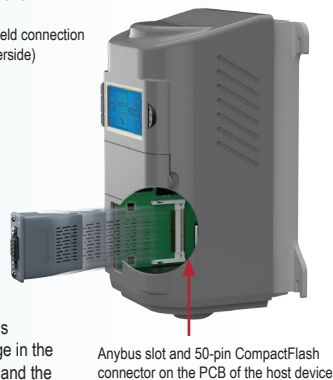| Environmental Characteristics | |
|---|---|
| Operating temp | -40 to 70 °C, -40-158 °F<br>-40 to 85 °C, -40-176 °F (modules without housing) |
| Humidity | 5-95 % non-condensing |

| BACnet/IP-specific technical highlights |
|---|
| Full Support for B-ASC (BACnet Application Specific Controller) |
| Alarm and Event Mechanisms |
| Data Sharing with updates on data changes |
| Device Management Support |
| Achilles Storm Tested |

50-pin CompactFlash connector

Anybus NP40 network processor

Robust plastic housing

On-board DC/DC converter, opto couplers and physical layer

Status LEDs x2

Tightening screws x2

Network specific connector (this example shows 2-port Ethernet)

Integrated shield connection (underside)
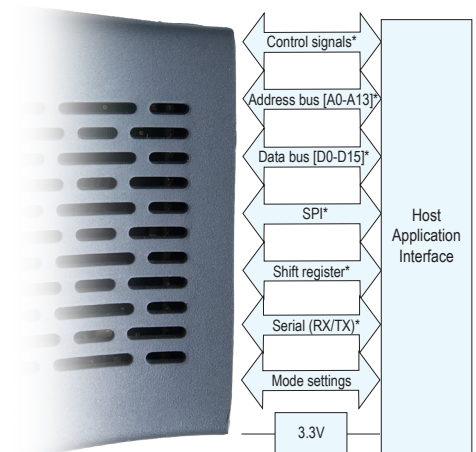
### Module mounting

The CompactCom module slides into a pre-designated slot in the host automation device PCB. The module is secured with an innovative mechanism by tightening the two screws located on the front cover of the CompactCom module.

HMS offers a customized CompactFlash connector for Anybus CompactCom. The module insertion can be made at any stage in the logistical chain between the automation device manufacturer and the end customer. CompactCom slot cover available on request from HMS.

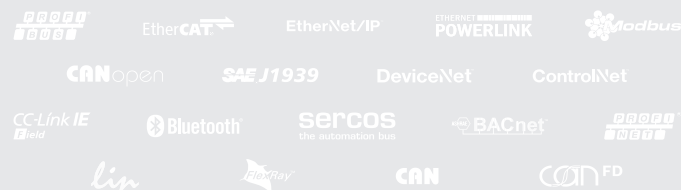Anybus slot and 50-pin CompactFlash connector on the PCB of the host device

**Block diagram**

Control signals*

Address bus [A0-A13]*

Data bus [D0-D15]*

SPI*

Shift register*

Serial (RX/TX)*

Mode settings

3.3V

Host Application Interface

## Twincomm

**Embedded Networking Solutions**

**Twincomm**
**de Olieslager 44**
**5506 EV  Veldhoven**
**the Netherlands**

**T** +31-40-2301.922
**F** +31-40-2301.923
**E** welcome@twincomm.nl

**Discover our complete program at www.twincomm.nl**

EtherCAT  EtherNet/IP  ETHERNET POWERLINK  Modbus
CANopen  SAE J1939  DeviceNet  ControlNet
CC-Link IE Field  Bluetooth  sercos the automation bus  BACnet
lin  FlexRay  CAN  CAN FD

**Anybus®** *Industrial networking made easy!*                    www.anybus.com