The Anybus CompactCom M40 for DeviceNet is a complete communication module which enables your products to communicate on a DeviceNet network.

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.

DeviceNet™

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 DeviceNet communication

The Anybus CompactCom M40 enables communication between your device and DeviceNet. The module handles data lengths up to 512 bytes in both directions and supports both modular device profiles and energy profiles on DeviceNet.

Features and benefits for the CompactCom 40-series

- A complete, interchangeable communication module with connectors.
- Quick in-design with free assistance from HMS ensures a fast time to market.
- Pre-certified for network compliance (enables faster network certification).
- Fast data transfer: 512 bytes in (IN/OUT) for DeviceNet
- Very low latency.
- Support for modular device profiles.
- Support for energy profiles on DeviceNet.
- 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 high speed SPI. I/O (shift register interface) is also available.
- Firmware management tool enables easy download via serial connection (UART).
- 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. These are all built on the Anybus NP40 processor making them 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.
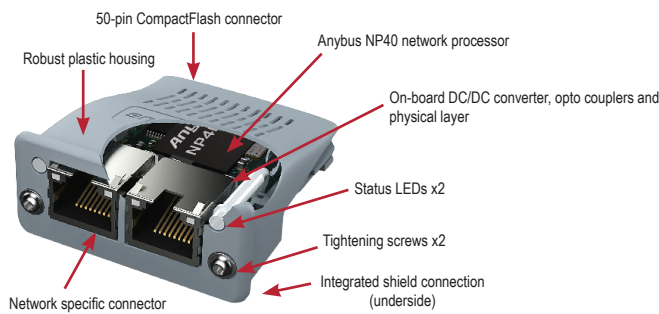
Best-in-class processor

The M40 is equipped with the best network processor on the market according to independent analyst firm Frost & Sullivan.
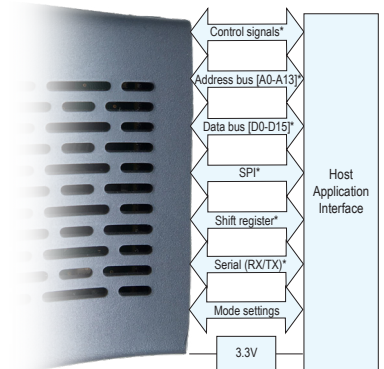
HMS

Technical specifications

Technical Details

Dimensions (L • W • H)	52•50•22 mm, 2.04•1.97•0.86" 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) - High speed SPI, baudrate configurable up to 20 MHz - I/O (shift register interface, cyclical update time 82 µs) - UART (for backwards compatibility with 30-series, max 625kbps)
Profile support	I/O
LED indicator	Integrated on front (with housing), via application interface (without housing). Indicates Module Status and Network Status.

Certifications

UL, cUL	Yes
Network conformance	Yes

CE - Declaration of Pre-Conformity

Emission EN 61000-6-4	EN55016-2-3 Radiated emission EN55022 Conducted emission
Immunity EN 61000-6-2	EN61000-4-2 Electrostatic discharge, EN61000-4-3 Radiated immunity. EN61000-4-4 Fast transients/burst, EN61000-4-5 Surge immunity. EN61000-4-6 Conducted immunity.

Electrical Characteristics

Power requirements	3.3 VDC, +/- 0.15 VDC

Environmental Characteristics

Operating temp	-40 to 70 ºC, -40-158 ºF -40 to 85 ºC, -40-176 ºF (modules without housing)
Humidity	5-95 % non-condensing

DeviceNet-specific technical highlights

CIP Parameter Object Support

Explicit messaging

UCMM capability

Bit-strobed I/O

Change-of-state / Cyclic I/O

Polled I/O

Expansion possibilities via CIP forwarding

Customizable Identity object

Automatic Baud Rate Detection

Modular Device functionality

Quick Connect support

Energy profile support

Block diagram

50-pin CompactFlash connector

Robust plastic housing

Anybus NP40 network processor

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

Status LEDs x2

Tightening screws x2

Network specific connector

Integrated shield connection (underside)
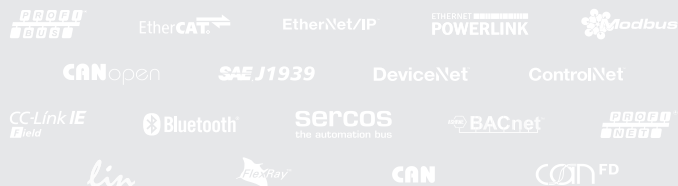
Module mounting

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

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