

CompactCom™ M40 — Common Ethernet

The Anybus CompactCom M40 for Common Ethernet allows you to connect to several different industrial Ethernet networks using the same module. Simply download the firmware corresponding to your chosen network, and your product is able to communicate. No hardware changes are needed.

The CompactCom 40-series supports fast communication speeds, making it especially suitable for high-end industrial devices.



Networks:



If you need fast Ethernet communication

The Anybus CompactCom M40 for Common Ethernet enables fast communication between your device and several industrial Ethernet networks (PROFINET, EtherCAT, EtherNet/IP and Powerlink). You use the same hardware for all networks and simply download the firmware needed for a specific network.

Features and benefits

- A complete, interchangeable communication module with connectors.
- Short 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:
 - Up to 1500 bytes of process data in each direction.
 - Up to 1500 bytes of explicit messaging.
- Very low latency.
- 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.
- One hardware platform for all Ethernet versions. Simply download new firmware to enable communication with another network for example PROFINET or EtherCAT.
- Per default, the Anybus CompactCom for Common Ethernet includes common IT functionality for example web server, TCP/IP stack, FTP server, and a socket interface, but no industrial network functionality is supported.
- Firmware management tool enables easy download of firmware via FTP or serial connection.
- Extended flash-based file system with two-disc access — one internal and one external (external = mounted to the application memory).
- Socket interface enabling the application the possibility to implement its own protocols over TCP/UDP
- Dual port switch implemented in the network processor — the Anybus NP40.
- 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

Common Ethernet functionality is also available in chip and brick formats. All form factors are 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.

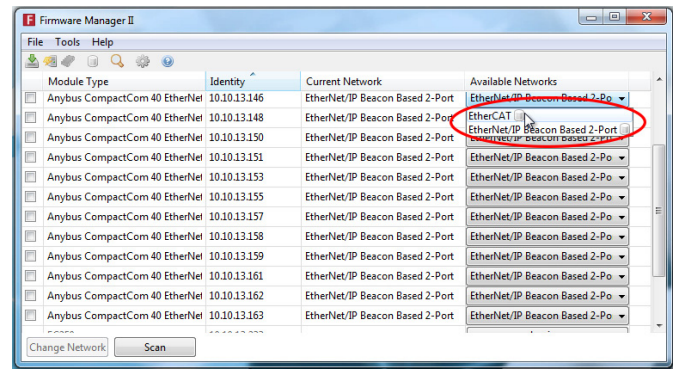


Why worry about networking?

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.

Technical specifications

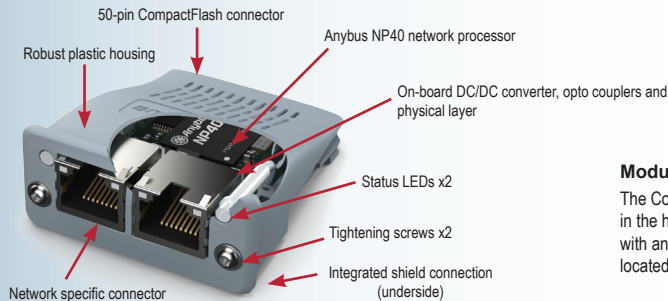
Technical Details	
Dimensions (L • W • H)	52•50•22 mm, 2.04•1.97•0.86" 51•37•16 mm, 2.01•4.46•0.63" (modules without housing)
Protection class	IP20
RoHS Compliance	Yes
Galvanically isolated network interface	Yes
Application interfaces	- 8/16-bit parallel (30 ns access) - High speed SPI, baudrate configurable 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	Generic device
Ethernet features	- Socket interface enabling the application the possibility to implement its own protocols over TCP/UDP (40-series technology enables higher throughput). - Integrated 2-port switch - IT functions (FTP server, E-mail client, web server with SSI support)
Internal file system size	Up to 28 MB. Two discs: One internal (28 MB capacity), and one which can be enabled for accessing the application file system (capacity determined by application).
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 (Interoperability tested. Plugfest approved)
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 °C, -40-158 °F -40 to 85 °C, -40-176 °F (modules without housing)
Humidity	5-95 % non-condensing



Easily download network configurations with the Firmware Manager

The Firmware Manager for Anybus CompactCom allows you to easily download the firmware that enables connectivity for a specific network. This Windows-based tool is included in the product package from HMS.

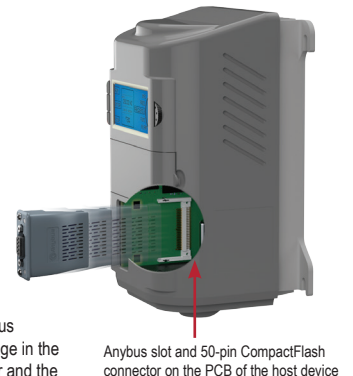
You can also download your network of choice directly from your own application to the file system in the Anybus module.



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.



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