

## CompactCom™ M40 for CANopen

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



### 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 CANopen communication

The Anybus CompactCom M40 for CANopen is a complete communication module which enables your products to communicate on a CANopen network. The module supports fast communication speeds, making it suitable also for high-end industrial devices.

### Features and benefits

- A complete, interchangeable communication module with connectors
- Short in-design with free assistance from HMS ensures a fast time to market
- CiA pre-certified for network compliance (enables faster network certification)
- Fast data transfer: Up to 512 bytes of process data in each direction, Up to 1524 bytes of acyclic data
- Fast, event-based application hardware interfaces: 8/16-bit parallel and highspeed SPI. I/O (shift register interface) is also available.
- 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.



## 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.

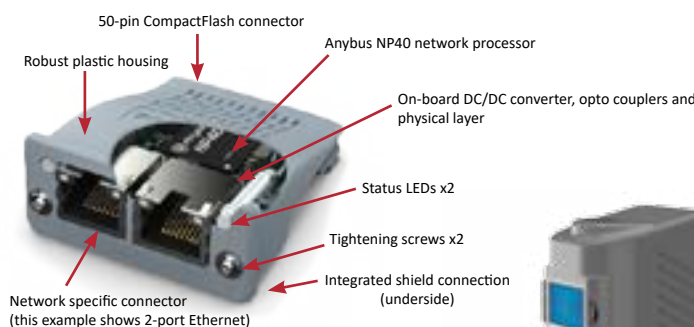
Certifications (for the CompactCom 40 series)	
UL, cUL	Yes
Network conformance	Yes: Pre-certified for full fieldbus and Industrial Ethernet network conformance

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.

Environmental Characteristics	
Operating temp	-40 to 85 °C, -40-176 °F

Starter kit	
Available for the entire CompactCom 40-series (Chip, Brick and Module)	

CANopen-specific technical highlights	
Network Identity customization	
EMCY support	
CIA-301 version 4.2.0 compliant	
Supports all standard baud rates	
Automatic baud rate detection	
Supports LSS	
Up to 57343 ADIs can be accessed from the network as Manufacturer Specific Objects and profile specific objects.	
Up to 64 TPDO's & 64 RPDO's (Corresponds to a total of 512 bytes of Process Data in each direction)	
PDO mapping can be customized via network configuration tool or via application (IO assemblies)	
Diagnostic support	
Support for process data remap from the network	
Heartbeat functionality supported (Node Guarding not supported)	
Supports Expedited- and Segmented SDO Transfer (Block Transfer not supported)	
Network cycle time down to 1 ms	
Possible to implement profiles	



### Module mounting

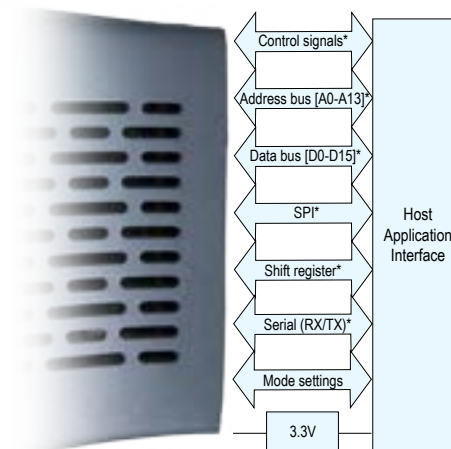
The CompactCom module slides into a pre-designated slot in the host automation device PCB. The module is secured with an innovative mechanism by tightening the two screws located on the front cover of the CompactCom module.

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



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