

# CompactCom™ M40 for PROFIBUS

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The Anybus CompactCom M40 for PROFIBUS is acomplete communication module which enables your products to communicate on a PROFIBUS 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 PROFIBUS communication

The Anybus CompactCom M40 enables communication between your device and PROFIBUS. The module handles data lengths up to 488 bytes (244 bytes input and 244 output) and supports both PROFIBUS DP-V0 and DP-V1 according to IEC61158 type 3.

### Features and benefits for the CompactCom 40-series

- 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: 244 bytes in each direction for PROFIBUS
- 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.
- Firmware management tool enables easy download via serial connection.
- 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.

Bestin-class



# processor

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



# **Technical specifications**

echnical 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	Yes		
interface			
Application interfaces	<ul> <li>- 8/16-bit parallel (30 ns access)</li> <li>- High speed SPI, baudrate configurable up to 20 MHz</li> <li>- I/O (shift register interface, cyclical update time 82 µs)</li> <li>- UART (for backwards compatibility with 30-series, max 625kbps)</li> </ul>		
Profile support	I/O		
LED indicator	Integrated on front (with housing), via application interface (without housing). Indicates Module Status and Network Status.		
ertifications			
UL, cUL	Yes		
Network conformance	Yes		
E - Declaration of Pre-0	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.		
lectrical Characteristic	s		
Power requirements	3.3 VDC, +/- 0.15 VDC		
nvironmental Characte	ristics		
Operating temp	-40 to 70 °C, -40-158 °F -40 to 85 °C, -40-176 °F (modules without housing)		
Humidity	5-95 % non-condensing		
50-pin CompactFla	ash connector		
Behuet plastic housing	Anybus NP40 network processor		

PROF	IBUS-specific technical highlights
Suppo	orts PROFIBUS DP-V0 and DP-V1 according to IEC61158 typ
Suppo	orts up to 65535 ADIs
Auton	natically detected baud rate
Maxim	num data length of 488 bytes (244 input and 244 output)
Maxin	num parameter length is 244 bytes
Modu	lar slave/device supported
Suppo	orts PROFIBUS failsafe functionality
Suppo	orts Sync/Freeze functionality
Gener	ric and PROFIBUS specific diagnostic support
User F	Parametrization Data support
Set SI	ave Address support
ADI ad	ccess via DP-V1 read/write services
Devic	e identity customization
Config	guration data (244 bytes)
Diagn	ostic data (244 bytes)

Supports the following PROFIBUS DP-V0/DP-V1 functions:					
SSA	Diagnostics	MSAC1_Read	MSAC2_Abort		
Set_Prm	Global control	MSAC1_Write	MSAC2_Read		
Chk_Cfg	Data exchange	MSAC1_	MSAC2_Write		
Get_Cfg	Read_Input	Alarm_ack			
	Read_Output	MSAC2_Initiate			

On-board DC/DC converter, opto couplers and

physical layer

Status LEDs x2

(underside)

ightening screws x2 Integrated shield connection

Module mounting

Robust plastic housing

Network specific connecto

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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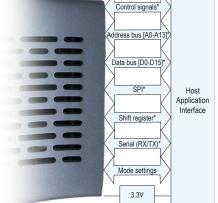
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# Block diagram