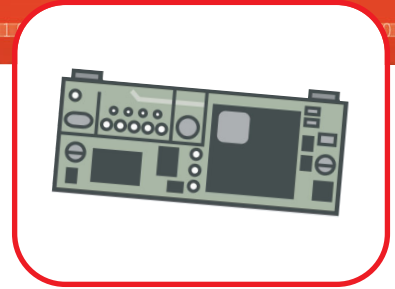


COM – Communication Module



Plug-on module as fieldbus interface

- Interchangeable plug-in modules for all leading fieldbus technologies
- Various formats with different installation possibilities
- Same driver interfaces for all modules
- Direct access to the process data in the Dual-port-memory
- Fast “Time to market”
- No development risk
- Proven fieldbus technology
- Cheaper than own development

Fieldbus integration for automation technology

Hilscher has been supplying communication modules (COM) for integrating fieldbus communication into the devices of automation technology for more than 10 years. These are complete fieldbus interfaces in a very small board with an easy to handle application interface. The simplest and most economical way of integrating proven communication technology into your devices.

Fieldbus communication in various formats

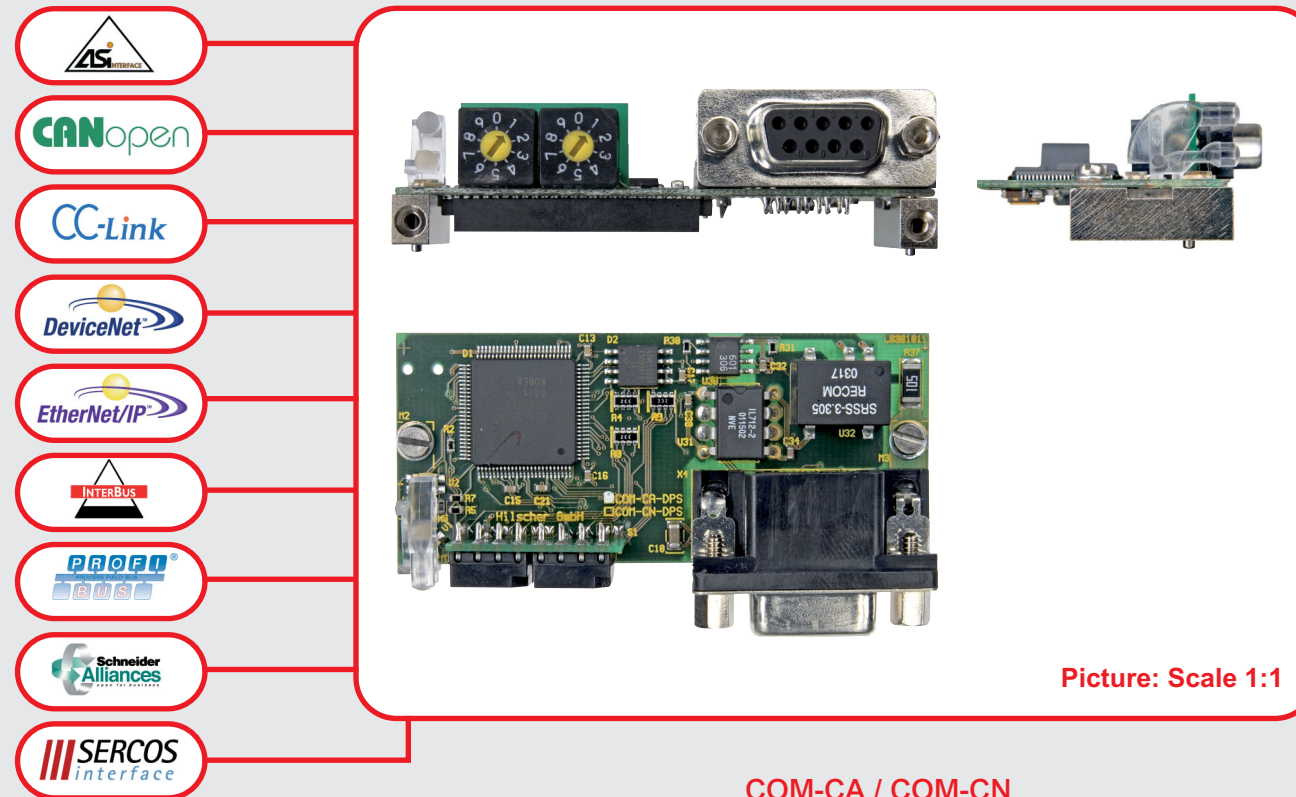
Based on past experience, Hilscher has now brought a new generation of COM modules onto the market.

These take into account the high degree of integration of special ASICs as well as new technologies such as the low-power consumption 3.3 V components. Special attention has been paid to the different installation possibilities and the high requirements of the mechanics and the interference resistance when installing the fieldbus plug onto the module.

COM – Communication Module

Plug and Play communication for automation

- Extremely compact size
- Variants with and without fieldbus connectors
- Variants with straight or angled connectors
- Compact Host plug with 1.27 mm matrix
- Metal blocks for solid mechanical installation
- Solid PE connection via one of the metal blocks
- Fastening the front cover of the metal blocks
- Centering pins for precise installation on the Host board
- Host-Interface for max. 32 KByte Dual-port-memory and max. 16 Bit data width
- Serial interface for diagnostic or as customer-specific Host-Interface
- CAN interface for special applications
- Reduced power consumption to 3.3 V technology
- Available in an extended temperature range



Picture: Scale 1:1

COM-AS

For parallel installation underneath a front plate with vertically directed fieldbus plug/ LEDs/switch with minimal component height of 10 mm.

Module size (L x W x H) 40 x 70 x 26 mm



COM-BA / COM-BN

For right-angled installation behind a front plate with angled fieldbus plug/LEDs with a minimal front width of 40 mm.

Module size (L x W x H) 40 x 70 x 21.5 mm

As a variant COM-BN with signals for fieldbus/LEDs/switch on Host board.



COM-CA / COM-CN

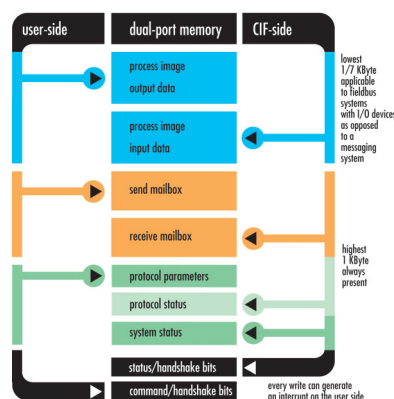
For right-angled installation behind a front plate with angled fieldbus plug/LEDs with a minimum module size.

Module size (L x W x H) 70 x 30 x 21.5 mm

All plugs on the outer edge – saves space on the Host board.

2.5 mm free space below the module for SMD components on the Host board.

As variant COM-CN with signals for fieldbus/LEDs/Switch on Host board.



Identical “easy to use” application interface

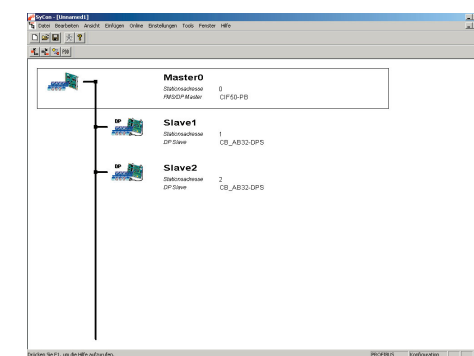
The exchange of data with the Host system occurs via a simple to handle Dual-port-memory interface that is the same on all modules. The process variables are provided with a process data image and commands are transferred via a Mailbox. The module accepts the data and carries out the data exchange via the fieldbus independently without loading the Host system. The storage of the process variables is identical for all modules. What is different are the parameters of the diagnostic and status structures as well as the fieldbus-specific commands. When this is properly taken into account, the modules of various fieldbus systems can be interchanged without causing any major changes to the applications.



One driver for all modules

The integration of the COM Module in the Host environment is done with a universal driver. A comprehensive function library in C source code is available for this purpose. All functions are independent of the fieldbus system. The access to the process data image of the process variables is achieved via uniform data structures.

Integration on this basis can be extended from one fieldbus system to others with little effort.



Master configuration via SyCon

The configuration takes place directly via the Dual-port-memory or via the serial diagnostic interface. For the more complex Master modules the SyCon system configurator is additionally available, whereas slave modules are easiest configured directly from the application program. The configuration is stored on the module and is also not lost in the un-powered condition.

COM – Technical Information

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www.sistelcontrol.com

Sweden
Novotek Sverige AB
www.novotek.se

UK
Miles Industrial Electronics Ltd
www.milesie.co.uk

Technical Data

AS-Interface		Master
		2 Channels each with 62 Slaves 248 Input Bits/186 Output Bits
CANopen	Slave	Master
		126 Nodes
510 Byte I/O Data		7168 Byte I/O Data
Min. Boot up		Min. Boot up
COB ID Distribution: default/via SDO		COB ID Distribution: default/via SDO
Emergency Message		Emergency Message
Node/Life Guarding, Heartbeat		Node/Life Guarding, Heartbeat
Event Trigger		Event Trigger
PDO: Async		PDO: Cyclic, Acyclic, Async
Remote Request		Remote Request
32 Rx-/32 Tx-PDOs		
CC-Link	Slave	
		Max. 4 Stations each with 64 Bit I/O Data 8 Words I/O Data Polling
DeviceNet	Slave	Master
		63 Slaves
510 Byte I/O Data		7168 Byte I/O Data
Explicit, Polling, Bit-strobe, Cyclic, Change of State		Explicit, Polling, Bit-strobe, Cyclic, Change of State
Predefined Connection Set		UCMM via Group 1, 2, 3, Predefined Connection Set
EtherNet/IP	Slave	
		1008 Bytes I/O Data Max. 1 Implicit Connection Max. 6 Explicit Connection
Ethernet Protocols		
		FTP Server SMTP Client
InterBus	Slave	
		20 Words I/O Data PCP Channel, 2 Words
Open Modbus/TCP		
		Client/Server
PROFIBUS-DP	Slave	Master
		125 Slaves
368 Byte I/O Data		7168 Byte I/O Data
DPV1 Extensions		DPV1 Extensions
Class 1 and 2 Services		Class 1 and 2 Services MPI functions
SERCOS	Passive	
		SERCON816, Master or Slave dependent on driver
Diagnostic Connection		
		RS232C, potential-bound A diagnostic interface ist not available on the following devices: COM-CA-IBS and COM-CA-SCEB
System Interface		
		Dual-port-memory
Operating Voltages		
		3.3 V / 300-800 mA COM-A/-B/-C
Operating Temperature		
		0 ... 60 °C COM-A/-B/-C -20 ... 70 °C optional
Dimensions (L x W x H)		
		40 x 70 x 26 mm COM-A 40 x 70 x 21.5 mm COM-B 70 x 30 x 21.5 mm COM-C
Noise Immunity, Radiated Noise		
		EN 50082-2 EN 55011 Cl. B

Product Overview

Fieldbus	Communication Module	40 x 70 mm Vertical Plug
AS-Interface-Master	COM-AS-ASM	
CANopen-Slave	COM-AS-COS	
CANopen-Master	COM-AS-COM	
DeviceNet-Slave	COM-AS-DNS	
DeviceNet-Master	COM-AS-DNM	
Ethernet	COM-AS-EN	
EtherNet/IP-Slave	COM-AS-EIS	
PROFIBUS-DP-Slave	COM-AS-DPS	
PROFIBUS-DP-Master	COM-AS-DPM	
Fieldbus	Communication Module	Communication Module
	40 x 70 mm Angled Plug	40 x 70 mm Without Plug
AS-Interface-Master	COM-BA-ASM	COM-BN-ASM
CANopen-Slave	COM-BA-COS	COM-BN-COS
CANopen-Master	COM-BA-COM	COM-BN-COM
DeviceNet-Slave	COM-BA-DNS	COM-BN-DNS
DeviceNet-Master	COM-BA-DNM	COM-BN-DNM
Ethernet	COM-BA-EN	COM-BN-EN
EtherNet/IP-Slave	COM-BA-EIS	COM-BN-EIS
PROFIBUS-DP-Slave	COM-BA-DPS	COM-BN-DPS
PROFIBUS-DP-Master	COM-BA-DPM	COM-BN-DPM
Fieldbus	Communication Module	Communication Module
	70 x 30 mm Angled Plug	70 x 30 mm Without Plug
AS-Interface-Master	COM-CA-ASM	COM-CN-ASM
CANopen-Slave	COM-CA-COS	COM-CN-COS
CANopen-Master	COM-CA-COM	COM-CN-COM
CC-Link-Slave	COM-CA-CCS	COM-CN-CCS
DeviceNet-Slave	COM-CA-DNS	COM-CN-DNS
DeviceNet-Master	COM-CA-DNM	COM-CN-DNM
Ethernet	COM-CA-EN	COM-CN-EN
EtherNet/IP-Slave	COM-CA-EIS	COM-CN-EIS
InterBus-Slave	COM-CA-IBS	
PROFIBUS-DP-Slave	COM-CA-DPS	COM-CN-DPS
PROFIBUS-DP-Master	COM-CA-DPM	COM-CN-DPM
SERCOS, passiv*	COM-CA-SCEB	

* The COM-CA-SCEB is a passive device and needs a own driver.