

The Universal Field Bus Gateway



- Low space requirements
- Easy installation and configuration
- Numerous protocol conversions
- Customer-specific connection technology
- Exchangeable configuration memory
- Additional interface for start up and diagnostic



■ The Design

The netTAP is based on the well known field bus protocol converter of the Hilscher GmbH. The aim of being able to cover as many variants as possible with one device series and at the same time to develop a space-saving and economical alternative to existing Gateway solutions, led to the development of the netTAPes.

■ The netTAP

is a modular, universal Gateway with two interfaces for connecting to field devices and field bus systems. Besides the standard field bus connections such as PROFIBUS, DeviceNet and CANopen, also RS 232 or RS-422/485 and Ethernet are available

Each netTAP can additionally be equipped with an extension memory for saving and reactivating the configuration.

By means of a further independent interface, the configuration of the Gateway functionality or a diagnostic during operation can be carried out either via an RS 232 connection or via Bluetooth.

The new diversity in fieldbus technology



■ Continuous Communication

from the command to the field level is the aim of the integration of different field bus or field device protocols in unified network structures.

With the development of the netTAP, the previously necessary Gateway and communication technology is made as easy as possible for the user.

■ The Interfaces

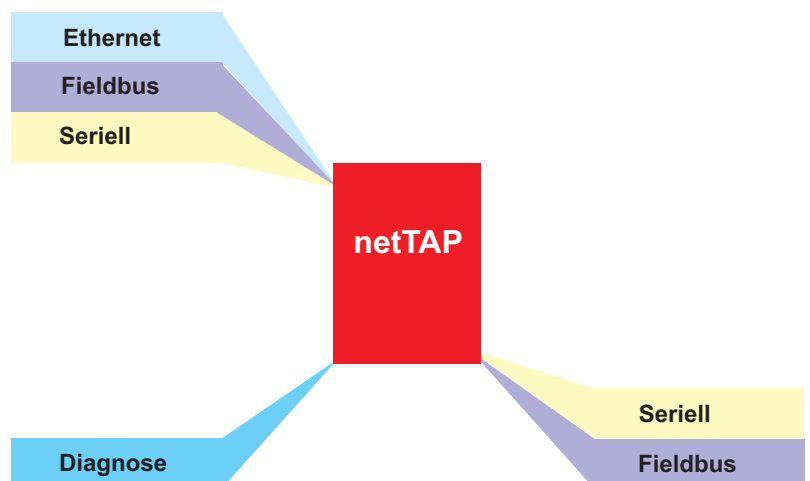
of the netTAP are its greatest strength. Because of the different possibilities, numerous areas of application can be covered with the netTAP.

Each netTAP has a connection at the front of the device and this is equipped with a suitable plug depending on the selected protocol variant.

The second connection is directly supplied with a finished cable. This simplifies the installation effort substantially for the start up as the finished cable need only be plugged into the field device and the field connection is undertaken at the netTAP.

■ The Protocols

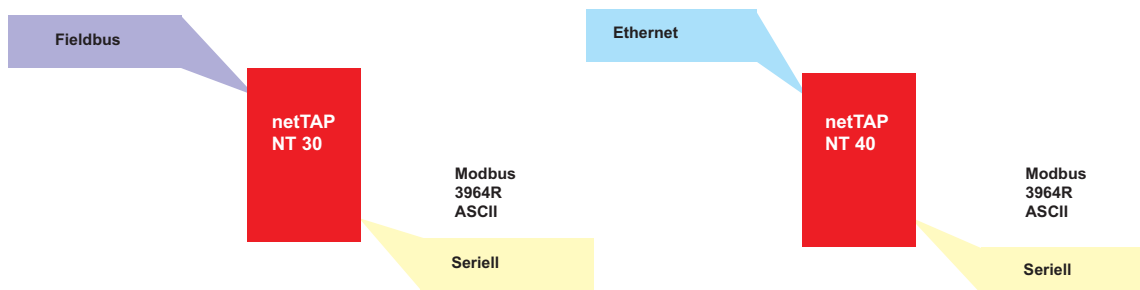
were supported directly on the respective interface of the netTAP. PROFIBUS, DeviceNet, and CANopen in the variations of Master of Slave are available as field bus protocols for this purpose with more to come. For serial connections, use is made of 3964R, Modbus or ASCII, and for Ethernet the Open Modbus/TCP protocol is used.





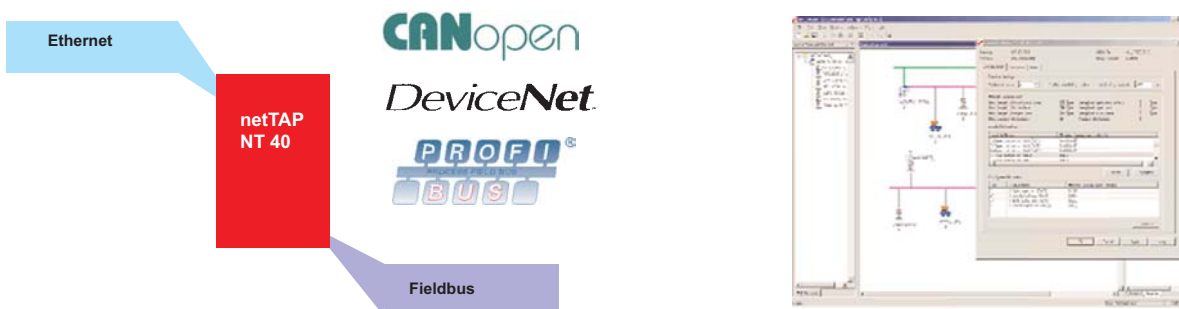
■ Field Devices with serial connections

provide an economical connection to field bus networks or Ethernet via the netTAP technology. On the serial side, Modbus, 3964R or ASCII protocols are available. The connection on the field bus is carried out as Slave



■ Field Devices with Field Bus-Slave Connection

are economically integrated with netTAP into an Ethernet. Open Modbus is available on the Ethernet side. Field bus protocols available are PROFIBUS-DP, DeviceNet and CANopen always as Master-Link to a single Slave.



■ The configuration

is carried out with the SYCON.net configurator and this can be connected by means of an independent serial diagnostic interface or with Bluetooth during operation and runs on any Windows PC. With netTAP 40 devices, the configuration can also be carried out via the Ethernet network.

SYCON.net supports the FDT/DTM technology for intelligent management of the field devices and thus offers the system integrator a central start-up tool with optimum access to the relevant process information of the connected field devices.



Information

The purpose of the field bus Master-LINK interface is for the connection of exactly one Slave field device to the netTAP. The serial interface at the front of the housing is always provided as a potential-free RS-232 / 422 / 485 and is always arranged via the configurator. The type of serial interface with finished connecting cable must be given as a product variant.

Connecting cables

are supplied already completed and connected to an interface with each netTAP. The serial connection cables for RS 232 or RS 422/485 are distinguished by their colours and supplied with free cable ends.

If desired, a Sub-D9 connection for simple installation can be supplied as well for easy serial connections.

Customer-specific cable models

will gladly be produced according to your special requirements. Please contact our sales department.

Product overview

netTAP	Front Connector	Cable Connector
NT 30	Fieldbus Slave	Serial
NT 30-DPS-XIY	PROFIBUS Slave	Serial
NT 30-COS-XIY	CANopen Slave	Serial
NT 30-DNS-XIY	DeviceNet Slave	Serial
NT 40	Serial	Ethernet
NT 40-RS-EN	RS-232/422/485	Ethernet
NT 40	Ethernet	Fieldbus
NT 40-EN-DPL	Ethernet	PROFIBUS Master-Link
NT 40-EN-COL	Ethernet	CANopen Master Link
NT 40-EN-DNL	Ethernet	DeviceNet Master-Link
NT 40-EN-XIY	Ethernet	RS 232/422/485
-X	serial Interface	
-RS2	RS 232	non-isolated
-RS2I	RS 232	potential free
-RS4	RS 422/485	non-isolated
-RS4I	RS 422/485	potential free
IY		Conneter as variant
\D9M		Sub-D9 male
\D9F		Sub-D9 female
Accessories		
NT MEM	memory expansion	
NT DIAG-BT	Diagnostic Interface Bluetooth	
NT DIAG-RS	Diagnostic Interface serial	
NS-5TX	5 * RJ45 Ethernet Switch	

Technical Data

Ethernet twisted pair	
Transmission rate	100 MBaud
Interface	100 BaseT potential free
Connector	RJ45 Plug
CANopen	
Access to	PDOs
Data connection	event-triggered
	emotely requested
Transmission rate	max. 1 Mbaud
DeviceNet	
Access to	Implicit Messaging
Data connection	Polled I/O
	Change of state I/O
	Cyclic I/O
Transmission rates	125 / 250 / 500 Kbaud
PROFIBUS-DP	
Access to	cyc. Process data
Data connection	Data_Exchange
Transmission rate	max. 12 MBaud
Serial	
Interface	RS 232C
	RS 422
	RS 485
Isolation	Dependent on model
Bus termination	can be switched on/off
Transmission rate	50 to 19,2 kBaud
Connector	D-Sub female, 9pin
	or free wire ends
Diagnostic Interface	
Wireless	2.4 GHz ISM Band
Serial	RS232C
	non-isolated
LED Display	
Device status, Communication	
Power supply	
18 .. 30 VDC / 100 mA	
Operating temperature	
0 °C .. 50 °C	
Dimension	
100 x 65 x 25 mm (L x W x H)	
International Protection Class	
IP 20	
Mounting	
Top-hat rail	DIN EN 60715
EMV	
Noise immunity	EN 61000-6-2
Radiated noise	EN 55011 Kl. B

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