netTAP 100

High-end Gateway for industrial Automation

- **For Fieldbus to Fieldbus, to Serial or Ethernet conversions**

- **Combines Master and Slave in any variation**

- **Loadable firmware for flexible use of other conversions**

- **Device replacement in seconds via memory card based loading**

CANopen · CC-Link · EtherCAT · PROFINET · Modbus

DeviceNet · PROFIBUS · EtherNet/IP · sercos the automation bus · ETHERNET POWERLINK

netTAP 100 is the protocol converter for sophisticated conversions and supports 2-port Real-Time Ethernet to serial, Fieldbus to Fieldbus, Real-Time Ethernet to Fieldbus and Real-Time Ethernet to Ethernet automation protocols. It supports slave and master functionality in any combination. Master functionality is unrestricted when licensed.

A memory card slot allows the user to save firmware and configuration data on a removable card. In case of failure all that is necessary to bring the plant back on line within seconds is to move the memory card from the old netTAP 100 onto a spare unit.

Apart from standard protocols, netTAP 100 supports the creation of serial protocols with the Lua-based scripting language netSCRIPT. A full featured development environment is included within the delivery. It allows the comfortable and rapid programming of any proprietary serial protocol as well as the I/O data pre-processing during the conversion into the other field protocol.

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COMPETENCE IN COMMUNICATION

Technical Data / Product Overview

Protocol matrix / Article Description

NT 100-		CANopen		CC-Link		DeviceNet		PROFIBUS		PROFINET		EtherCAT Sercos		EtherNet/IP		Modbus TCP		POWERLINK		Modbus RTU		ASCII netSCRIPT
		Master*	Slave	/	Slave	Master*	Slave	Master*	Slave	Master*	Slave	Master*	Slave	Master*	Slave	Master	Slave	Master*	Slave	Master	Slave	/
CANopen	Master*	/	CO-CO	/	CO-CC	/	CO-DN	/	CO-DP	/	RE-CO	/	RE-CO	/	RE-CO	RE-CO	RE-CO	/	RE-CO	CO-RS	CO-RS	CO-RS
	Slave	CO-CO	CO-CO	/	CO-CC	CO-DN	CO-DN	CO-DP	CO-DP	RE-CO	RE-CO	RE-CO	RE-CO	RE-CO	RE-CO	RE-CO	RE-CO	/	RE-CO	CO-RS	CO-RS	CO-RS
CC-Link	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
	Slave	CO-CC	CO-CC	/	/	DN-CC	DN-CC	DP-CC	DP-CC	RE-CC	RE-CC	RE-CC	RE-CC	RE-CC	RE-CC	RE-CC	RE-CC	/	RE-CC	/	/	/
DeviceNet	Master*	/	CO-DN	/	DN-CC	/	DN-DN	/	DP-DN	/	RE-DN	/	RE-DN	/	RE-DN	RE-DN	RE-DN	/	RE-DN	DN-RS	DN-RS	DN-RS
	Slave	CO-DN	CO-DN	/	DN-CC	DN-DN	DN-DN	DP-DN	DP-DN	RE-DN	RE-DN	RE-DN	RE-DN	RE-DN	RE-DN	RE-DN	RE-DN	/	RE-DN	DN-RS	DN-RS	DN-RS
PROFIBUS	Master*	/	CO-DP	/	DP-CC	/	DP-DN	/	DP-DP	/	RE-DP	/	RE-DP	/	RE-DP	RE-DP	RE-DP	/	RE-DP	DP-RS	DP-RS	DP-RS
	Slave	CO-DP	CO-DP	/	DP-CC	DP-DN	DP-DN	DP-DP	DP-DP	RE-DP	RE-DP	RE-DP	RE-DP	RE-DP	RE-DP	RE-DP	RE-DP	/	RE-DP	DP-RS	DP-RS	DP-RS
PROFINET	Master*	/	RE-CO	/	RE-CC	/	RE-DN	/	RE-DP	/	/	/	/	/	RE-EN	RE-EN	RE-EN	/	/	RE-RS	RE-RS	RE-RS
	Slave	RE-CO	RE-CO	/	RE-CC	RE-DN	RE-DN	RE-DP	RE-DP	/	/	/	/	RE-EN	RE-EN	RE-EN	RE-EN	/	/	RE-RS	RE-RS	RE-RS
EtherCAT Sercos	Master*	/	RE-CO	/	RE-CC	/	RE-DN	/	RE-DP	/	/	/	/	/	RE-EN	RE-EN	RE-EN	/	/	RE-RS	RE-RS	RE-RS
	Slave	RE-CO	RE-CO	/	RE-CC	RE-DN	RE-DN	RE-DP	RE-DP	/	/	/	/	RE-EN	RE-EN	RE-EN	RE-EN	/	/	RE-RS	RE-RS	RE-RS
EtherNet/IP	Master*	/	RE-CO	/	RE-CC	/	RE-DN	/	RE-DP	/	RE-EN	/	RE-EN	/	RE-EN	RE-EN	RE-EN	/	RE-EN	RE-RS	RE-RS	RE-RS
	Slave	RE-CO	RE-CO	/	RE-CC	RE-DN	RE-DN	RE-DP	RE-DP	RE-EN	RE-EN	RE-EN	RE-EN	RE-EN	RE-EN	RE-EN	RE-EN	/	RE-EN	RE-RS	RE-RS	RE-RS
Modbus TCP	Master	RE-CO	RE-CO	/	RE-CC	RE-DN	RE-DN	RE-DP	RE-DP	RE-EN	RE-EN	RE-EN	RE-EN	RE-EN	RE-EN	RE-EN	RE-EN	/	RE-EN	RE-RS	RE-RS	RE-RS
	Slave	RE-CO	RE-CO	/	RE-CC	RE-DN	RE-DN	RE-DP	RE-DP	RE-EN	RE-EN	RE-EN	RE-EN	RE-EN	RE-EN	RE-EN	RE-EN	/	RE-EN	RE-RS	RE-RS	RE-RS
POWERLINK	Master*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
	Slave	RE-CO	RE-CO	/	RE-CC	RE-DN	RE-DN	RE-DP	RE-DP	/	/	/	/	RE-EN	RE-EN	RE-EN	RE-EN	/	/	RE-RS	RE-RS	RE-RS
Modbus RTU	Master	CO-RS	CO-RS	/	/	DN-RS	DN-RS	DP-RS	DP-RS	RE-RS	RE-RS	RE-RS	RE-RS	RE-RS	RE-RS	RE-RS	RE-RS	/	RE-RS	/	/	/
	Slave	CO-RS	CO-RS	/	/	DN-RS	DN-RS	DP-RS	DP-RS	RE-RS	RE-RS	RE-RS	RE-RS	RE-RS	RE-RS	RE-RS	RE-RS	/	RE-RS	/	/	/
ASCII netSCRIPT	/	/	CO-RS	CO-RS	/	/	DN-RS	DN-RS	DP-RS	DP-RS	RE-RS	RE-RS	RE-RS	RE-RS	RE-RS	RE-RS	RE-RS	/	RE-RS	/	/	/

Ordering example: PROFIBUS Master to EtherNet/IP Slave = NT 100-RE-DP

* Master license must be ordered separately (Modbus RTU/TCP without limitations)

Technical Data

Parameter	Value
Diagnostic Interface	Mini-USB
Displays	SYS, COM, LINK, Rx/Tx, protocol specific
Configuration	SYCON.net, Windows® 7 or higher
Power Supply	18 … 30 V / 130 mA @ 24 V
Connector	Mini-COMBICON 2-pin
Operating temperature	0 ... 60 °C
Dimensions (L x B x H)	100 x 52 x 70 mm (without connector)
Mounting	DIN-Rail, DIN EN 60715
Weight	150 g
CE Sign	yes
UL	UL 508
Emission	CISPR 11 Class A
Noise Immunity	EN 61131-2:2003
Card Slot	SD Card

Protocol	Maximum Cyclic Process Data — Master	Slave	
ASCII		2024	Bytes I/O-Data
CANopen	7168	1024	Bytes I/O-Data
CC-Link		736	Bytes I/O-Data
DeviceNet	7168	510	Bytes I/O-Data
EtherCAT	11472	400	Bytes I/O-Data
EtherNet/IP	11472	1008	Bytes I/O-Data
Modbus RTU	11520	11520	Bytes I/O-Data
Modbus TCP	11520	11520	Bytes I/O-Data
netSCRIPT		2048	Bytes I/O-Data
POWERLINK		2980	Bytes I/O-Data
PROFIBUS	11472	488	Bytes I/O-Data
PROFINET	11472	2048	Bytes I/O-Data
Sercos	11472	256	Bytes I/O-Data

Note: *Subject to change without notice.*

The maximum convertible number of I/O data of a protocol combination is determined by the protocol with the lower amount of I/O data.

Overview

Article Description	Article Number	Article
NXLIC-MASTER	8211.000	Master license
SD-CARD	1719.003	SD Card

Headquarters

Germany
Hilscher Gesellschaft für Systemautomation mbH
Rheinstrasse 15
65795 Hattersheim
Phone: +49 (0) 6190 9907-0
Fax: +49 (0) 6190 9907-50
E-Mail: info@hilscher.com
Web: www.hilscher.com

Distributors
More information at www.hilscher.com

Subsidiaries

China
Hilscher Systemautomation (Shanghai) Co. Ltd.
200010 Shanghai
Phone: +86 (0) 21-6355-5161
E-Mail: info@hilscher.cn

France
Hilscher France S.a.r.l.
69500 Bron
Phone: +33 (0) 4 72 37 98 40
E-Mail: info@hilscher.fr

India
Hilscher India Pvt. Ltd.
Pune, Delhi, Mumbai
Phone: +91- 8888 750 777
E-Mail: info@hilscher.in

Italy
Hilscher Italia S.r.l.
20090 Vimodrone (MI)
Phone: +39 02 25007068
E-Mail: info@hilscher.it

Japan
Hilscher Japan KK
Tokyo, 160-0022
Phone: +81 (0) 3-5362-0521
E-Mail: info@hilscher.jp

Korea
Hilscher Korea Inc.
Seongnam, Gyeonggi, 463-400
Phone: +82 (0) 31-789-3715
E-Mail: info@hilscher.kr

Switzerland
Hilscher Swiss GmbH
4500 Solothurn
Phone: +41 (0) 32 623 6633
E-Mail: info@hilscher.ch

USA
Hilscher North America, Inc.
Lisle, IL 60532
Phone: +1 630-505-5301
E-Mail: info@hilscher.us