Dupline®
Serial to Ethernet Converter
Type ETHCONV4

- **Auto-detecting 10/100 Mbps Ethernet**
- **Built-in 15 KV ESD protection for all serial signals**
- **Configuration via web/Telnet/serial console**
- **Easy to Configurate wit the costume designed tool, see website: *www.car-park.dk***
- **2 x RS-485 port and 2 x Ethernet port**
- **Supports TCP server, TCP client and UDP**

Product Description

The ETHCONV4 is a two channel serial-to-Ethernet Converter. The IP-based Ethernet unit makes it possible for the Carpark software to access local serial devices anywhere on a local LAN or Internet.

The ETHCONV4 configuration tool is designed to set up the converter to work with the Carpark software. The tool can be downloaded from the website:
www.car-park.dk

Ordering Key

ETHCONV4

Specifications

LAN	
Ethernet	10/100 Mbps, RJ45
Protection	Built-in 1.5 KV magnetic isolation

Serial	
No. of ports	2 x RS-485 port
RS-485 Signals	DATA+, DATA-, GND
Serial Line Protection	15 KV ESD for all signals

Serial Communication Parameters	
Parity	None, Even, Odd, Space, Mark
Data bits	5, 6, 7, 8
Stop bits	1, 1.5, 2
Flow control	RTS/CTS, XON/XOFF
Speed	110 bps to 230.4 Kbps

Console Ports	RS-485 console

Software Features	
Protocols	ICM, IP, TCP, UDP, DHCP, BootP, Telnet, DNS, SNMP, HTTP, SMTP, SNTP, V1
Utilities	NPort Administrator Suite for Windows 95/98/ME/NT/2000/XP/2003/Vista/Windows 7 32 bit
Real COM/TTY Drivers	Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7 x86/x64, Embedded CE 5.0/6.0, XP Embedded

Fixed TTY Drivers	SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i
Linux Real TTY Drivers	Linux kernel 2.4.x, 2.6.x

Power Requirements	
Power input	12-48 VDC
Power consumption	440 mA@12V
Power Line protection	4 KV Burst (EFT), EN61000-4-4 2 KV Surge, EN6100-4-5

Mechanical Specifications	
Housing	Plastic, IP30 protection
Weight	NPort IA5150: 360 g NPort IA5250: 380 g
Dimensions	29 x 89.2 x 118.5 mm

Environment	
Operating Temperature	
Standard Models	0 to 55°C (32 to 131°F)
Wide Temp. Models	-40 to 75°C (-40 to 167°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Regulatory Approvals	
Safety	UL 508, UL 60950-1, EN 60950-1
Hazardous locations	UL/cUL Class I Division 2 Groups A/B/C/D, ATEX Zone 2
EMC	CE, FCC
EMI	EN 55022 Class A, FCC Part 15 Subpart B Class A

CARLO GAVAZZI

Specifications (cont.)

EMS	EN 55024, EN 61000-4-2 (ESD) Level 3, EN 61000-4-3 (RS) Level 3, EN 61000-4-4 (EFT) Level 4, EN 61000-4-5 (Surge) Level 3, EN 61000-4-6 (CS) Level 3, EN 61000-4-8, EN 61000-4-11
Marine	DNV

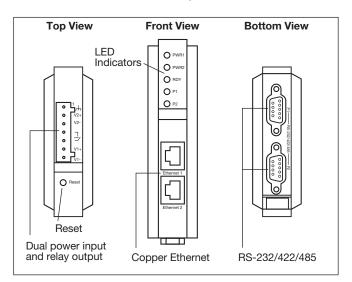| Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Reliability	
Water and Dust Proof	IP30
Alert Tools	Built-in buzzer and RTC (real-time clock)
Automatic Reboot Trigger	Built-in WDT (watchdog timer)

Mode of Operation

The ETHCONV4 serial device server provides TCP Server, TCP Client, UDP Server/Client, Pair Connection, and Ethernet Modem, ensuring the compatibility of network software that uses a standard network API (Winsock, BSD Sockets).

Thanks to ETHCONV4's Real COM/TTY drivers, software that works with COM/TTY ports are now able to work on a TCP/IP network in no time. This exellent feature preserves your software investment and lets you enjoy the benefits of networking your serial devices instantly.

The ETHCONV4 serial device server supports automatic IP configuration protocols (DHCP, BootP) and manual configuration through the web console, Telnet console, serial console, and Utility. All methods ensure a quick and effective installation. And with Windows Utility, your installation job becomes more pleasant than ever, since all system parameters can be stored and copied to many other device servers.

By using the specially designed Moxa NPort configuration tool for the Carpark software, the user is able to set up/adjust the ETHCONV4 unit quickly and easily. The configuration tool can be downloaded from: ***www.car-park.dk.***

Use the installation manual for Carpark for further information.

Reset Button - *Press the Reset button continously for 5 sec to load factory defaults:* Use a pointed object, such as a straightened paper clip or toothpick, to press the reset button. This will cause the Ready LED to blink on and off. The factory defaults will be loaded once the Ready LED stops blinking (after about 5 seconds). At this point, you should release the reset button.

NPort IA LED Indicators (Front Panel)

Name	Colour	Function
PWR1, PWR2	Red	Power is being supplied to power input PWR1, PWR2
Ready	Red	Steady on: Power is on and NPort IA is booting up. Flashing: Indicates an IP conflict, the DHCP or BOOTP server did not respond properly, or a relay output alert occured.
	Green	Steady on: Power is on and NPort IA is functioning normally. Flashing: The device server has been located by Administrator's Location function.
	Off	Power is off, or a power error condition exists.
Ethernet	Orange	10 Mbps Ethernet connection.
	Green	100 Mbps Ethernet connection.
	Off	Ethernet cable is disconnected, or has a short.
P1, P2	Orange	Serial port is receiving data.
	Green	Serial port is transmitting data.
	Off	No data is being transmitted or received through the serial port.

Top View	Front View	Bottom View

LED Indicators — PWR1, PWR2, RDY, P1, P2

Reset

Dual power input and relay output

Copper Ethernet — Ethernet 1, Ethernet 2

RS-232/422/485 — P1, P2

Specifications are subject to change without notice (27.11.2014)