

XLON[®] **PC/104**

Description

The **EXLON**^{PC/104} LonTalk[®] Adapter can be used to connect an embedded PC to a LonWorks[®] network via the PC/104 bus, according to P996 PC standard. It is designed for use in industry control, process control and building automation.

The **EXLON**^{PC/104} supports not only the LNS Network Services Interface (NSI) for all LNS tools, but also the LonManager[®] -API- and DOS Interface on older applications.

Thanks to its Client-Server-Architecture, the LNS network operating system provides simultaneous access to highly diverse applications on the Network-Services-Server (NSS). As a result LonWorks[®] network tools produced by different manufacturers can be simultaneously implemented for installation, maintenance, monitoring and control.

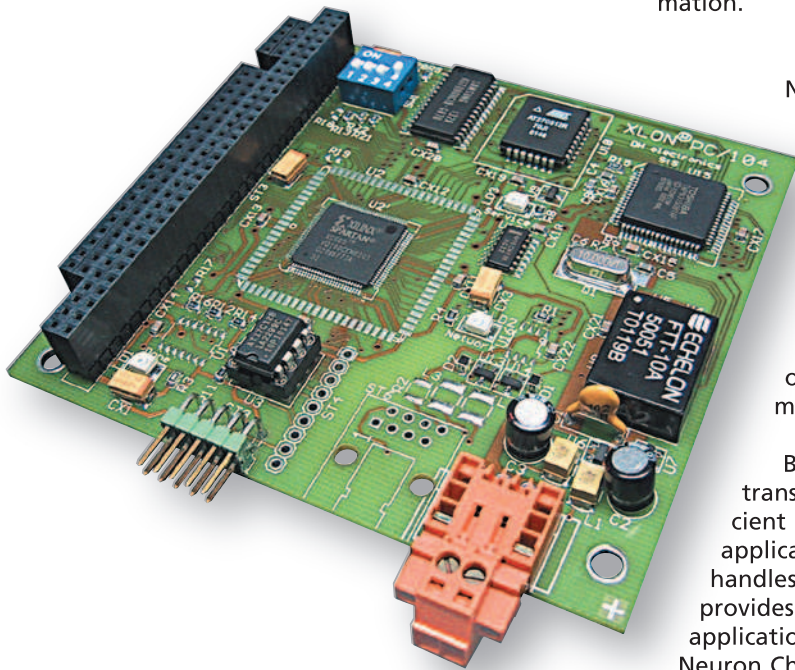
By utilizing the **EXLON**^{PC/104} it is also possible to transform an embedded PC into an extremely efficient LonWorks[®] node. In this case, the LonWorks[®] application runs on the PC, and the **EXLON**^{PC/104} handles the operation of the LonTalk[®] protocol. This provides much more processing power for a LonWorks[®] application, in comparison to a node based only on a Neuron Chip. In addition, the number of possible network variables has been considerably increased from 62 to 4096, which can frequently play an important role when it comes to maintenance and monitoring applications.

The **EXLON**^{PC/104} has an integrated FTT-10A transceiver for Free Topology and Link Power networks or a RS485 transceiver for Twisted Pair networks.








In order to lower the expense for peripheral components in embedded PC applications, the user has additional 8 free configurable digital TTL IO's. The inputs are able to generate an interrupt. More complex hardware functions like counters, encoders, digital filters etc. can be implemented on request.

An external Service button and Service LED is for use with manual installations and for visualization of the state of the LonTalk[®] Adapter. An extra LED displays any bus traffic on the network. The downloadable firmware allows updates without accessing the hardware.

All available drivers are included in the **EXLON**^{PC/104} Kit. Sample programs for accessing the driver with C/C++ and Visual Basic can be downloaded from www.xlon.de.



Features and Benefits

-  LonTalk[®] Adapter for PC/104 bus
-  Ideal for embedded PC applications, optionally available with extended temperature range and coating
-  FTT-10A or RS485 transceiver
-  Supports LNS and LonManager[®] API
-  Supports 7 IO addresses and 5 interrupts
-  Additional 8 digital TTL IO's
-  Drivers for Windows9x/ME, Windows CE, Windows NT/2000, Windows XP, MS-DOS, Linux and VxWorks



Specifications

Bus Interface	PC/104 conform, in accordance with P996 PC standard
Network Connection FTT-10A	2-conductor Weidmueller connector, type BL3.5/2FSNOR (Weidmueller ordering number: 160 664).
Network Connection RS485	3-conductor Weidmueller connector, type BL3.5/3FSNOR (Weidmueller ordering number: 160 665). A RJ45 connector is available on demand.
Power Supply Connection	Via the PC/104 bus
Service Pin Function	Controlled by host
Configuration State	Displayed on host or via Service LED
Network Transceiver	FTT-10A or RS485 (integrated)
Network Topologies	Free Topology and Link Power with FTT-10A or Twisted Pair with RS485
Power Supply Data	5VDC, $\pm 5\%$, 200mA typical
Environment Conditions	Operating temperature 0°C to +70°C (+32°F to +158°F)(standard) -40°C to +80°C (-40°F to +185°F)(extended) Non-operating temperature -45°C to +85°C (-49°F to +185°F) Maximum humidity 90%@+50°C (90%@+122°F), non-condensing
EMI	EN61000-4-2, EN61000-4-4, EN50140, EN50141
Listings	CE mark
Processor	Neuron 3150 [®] Chip@10 MHz
Dimensions	90 x 96 mm (3.6" x 3.8") (length x width)
Weight	55g

Documentation

The User Guide is bilingual (English/German) and is included in the **XLON[®] PC/104** Kit.

Ordering Information

XLON [®] PC/104	Article Number
with integrated FTT-10A	PC12-WM-FTT
with integrated RS485	PC12-WM-485
with RJ45 instead of Weidmueller	Replace WM with RJ in the above article numbers