

Marketing News

We have been spreading the message about CC-Link with whole page 4-colour adverts in the pan European publications, Industrial Networking and Open Control (INOC) and Control Engineering Europe.

We have also produced a 6-page overview brochure covering several recent application stories. For a copy of this, email malcolm.robins@clpa-europe.com



FESTO Modular Electrical Terminal CPX

The new FESTO CPX-terminal has been designed for easy, flexible connection of pneumatic and electrical control loop systems to automation systems. This enables control of the entire pneumatic control loop system, with I/O modules and valves, at a single fieldbus connection.

The CPX terminal assures optimised linking to the control concept via a wide range of fieldbuses, including CC-Link.

Bus connection is extremely easy via a terminal strip with IP20 protection class, Sub-D connector, T-distributor and connection of an incoming and an outgoing bus cable. Integrated interfaces are with RS485 transmission technology.

CC-Link enables maximum-speed communication at the control and fieldbus levels between data and field devices such as control systems, sensors or actuators with up to 65 stations and without using repeaters. The extremely short response times are the result of uncomplicated and effective protocols.



Members European Branch

European Vendors

Pneumatic Valve Manifolds

SMC Pneumatics UK Ltd.
Vincent Avenue, Crowhill
Milton Keynes MK8 0AN
Tel: +44 0800 1382930
Fax: +44 1908 555064

Temperature Controller

TC Ltd.
PO Box 130
Uxbridge Middlesex UB8 2YS
Tel: +44 1895 252222
Fax: +44 1895 273640

Gateway Devices

Pepperl + Fuchs GB
77 Ripponden Road
Oldham, Lancs OL1 4EL
Tel: +44 161 6336431
Fax: +44 161 6246537

Pneumatic Valve Manifolds

Festo Ltd.
Harvest Crescent, Ancells
Business Park
Hants GU13 8XP
Tel: +44 1252 775000
Fax: +44 1252 775001

Local Cell Equipment

Yamato Scale (UK) Ltd.
5 Maple Park, Lowfields
Avenue, Leeds SL12 6HH
Tel: +44 0113 2717999
Fax: +44 0113 2717012

Gateway Devices

Bihl & Wiedemann GmbH
Flobwörthstraße 41
D-68199 Mannheim
Tel: +49 621 339960
Fax: 49 621 3392239

PCI Cards

Woodhead Connectivity Ltd.
Factory No.9 Rassau Ind. Est.,
Ebbw Vale, Gwent
Wales NP3 5SD
Tel: +44-1495-350436
Fax: +44-1495-350877

Master Computer and PCI Card

NEC (UK) Ltd
NEC House, 1 Victoria Road
London W3 6BL
Tel: +44-208-993-8111
Fax: +44-208-992-7161
www.nec-global.com/office/europe.html

Miscellaneous

NAIS/Matsushita Electric
Works (Europe) AG
Rudolf-Diesel-Ring 2, 83607
Holzkirchen, Germany
Tel: +49-8024-6480
Fax: +49-8024-648111
www.meweuropa.com/mew

Data Acquisition & Computer

Contec Microelectronics
Europe B.V.
Binnenweg 4, 2132 CT
Hoofddorp, Netherlands
Tel: +31-23-567-3030
Fax: +31-23-567-3035
www.contec-europe.com

HMI

Pro-face HMI B.V. Amsteldijk
166 1079 LH, Amsterdam
The Netherlands
Tel: +31-20-6464-134
Fax: +31-20-6464-358
www.proface.com/company_e/offices.htm

Automation Products

Mitsubishi Electric Europe B.V.
Travellers Lane
Hatfield AL10 8XB
Tel: +44 1707 276100
fax: +44 1707 278695
www.mitsubishi.co.uk/automation



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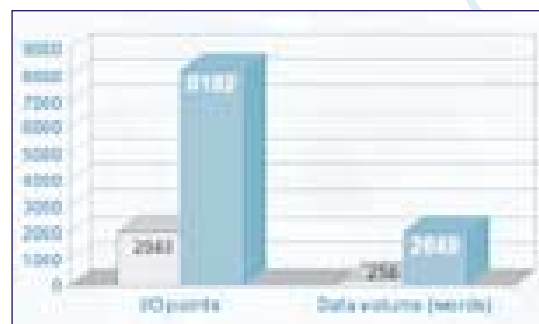
CC-Link V2 – helping to improve productivity with less downtime

Integrators and users alike are benefiting from new features incorporated into the latest version of CC-Link.

Key benefits now include:

- Integrates a wide range of automation devices, from numerous suppliers on a single network, up to 13.2 km
- Significantly reduces wiring and installation costs
- Provides outstanding discrete I/O update performance with 4 times more I/O points
- Maintains fast (8 times faster) throughput of large amounts of data
- Allows network devices to be added while the network is operating
- Allows "HotSwap" of similar devices
- Ensures deterministic response for reliable, real-time control
- Simple communication programming eliminates the need for device personality files, configuration software is available as an option
- Allows automation controllers to be programmed and monitored over the network
- Bypasses network devices needing service without disrupting network traffic
- Provides network diagnostic information to identify any problem areas
- Allows a standby network master to assume network control if the primary master goes off-line
- Automatically restores off-line, bypassed devices to the network

CC-Link is an open technology field-level network that provides high speed, deterministic communication, linking a wide range of automation devices over a single cable. Today's automation systems require an effective, integrated control system. CC-Link provides this necessary multi-vendor communication backbone. CC-Link is ideally suited for machine, cell or process control in industries ranging from semi-conductors to food and beverage, automotive to pharmaceuticals, material handling to building automation. This open network is supported by the non-profit, worldwide CC-Link Partner Association (CLPA). This globally accepted automation network is already the dominant technology in Asia.



CC Link V1 CC Link V2

INSIDE

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- CC-Link in action
- New Products News

For Fast, Easy Development of "CC-Link Compatible" OEM Products

Join hundreds of companies who produce CC-Link compatible products. Mitsubishi Electric have introduced a range of embedded I/O Adapters which allow you to quickly design and produce CC-Link compatible versions of your product.

These adapters:

- Greatly reduce your engineering development effort
- Get your CC-Link compatible product to the marketplace fast

CC-Link Embedded I/O Adapter features include:

- Small footprint (53mm Wx31.5mm H x 22mm D)
- Equipped with pins for easy PCB mounting
- Handle all CC-Link network communication and interfacing requirements
- Provide 16 or 32 lines of digital I/O for easy integration into your product, three versions are available:
 - 1) 16 inputs (24 VDC)
 - 2) 16 outputs (100ma transistor – sinking)
 - 3) 8 inputs and 8 outputs

(Note – 2 adapters can be mounted on a PCB to provide 32 digital lines.)



The OEM benefits include:

- Significant reduction in engineering development time and costs
- Faster time-to-market
- Can be either a permanent solution or an interim solution. You can use these adapters in the interim while developing an even more inexpensive CC-Link interface using the CC-Link LSI communication chip and recommended components.

For more information contact your local Mitsubishi Industrial Automation distributor.

SPS/IPC Nuremberg Review

The recent IPSS Show at Nuremberg was another resounding success with lots of interest shown in CC-Link Standby Master Function and Hot Swap capability, which was highlighted through an interactive Demo Unit.

The number of visitors at SPS IPC was 31,822 compared to 27,642 in 2003, Malcolm Robins – CLPA's General Manager – is confident that the show will be a core part of CLPA's future marketing activity



CC-Link reduces noise levels and energy costs on Building Management System

CC-Link in action

AGSY TEC, a German based specialist building Technology Company have utilised the power of the latest Open fieldbus, CC-Link, for one of their customers to totally automate and link four factories and one office building on a single Building Management System.

Before the new Building Management System (BMS) was installed all the buildings facilities had to be operated by hand. These facilities included lights, heating, windows, window blinds, presentation screens and a host of other functions.

Most people do not appreciate that using a manually operated building facilities system can at times be more expensive to operate than a totally automated one. But when viewed from an energy management perspective the long term cost savings of using an automated BMS system can be considerable. Apart from giving precise facility control, the use of the new BMS system also enhances security of the buildings as it can immediately indicate if windows are left open.

Old BMS systems do not allow for energy efficient heating of the rooms, nor do they compensate for hot spots created by other factors such as sunlight.

The new Building Management System from AGSY TEC changes all this with a new approach to the technology. It uses the latest in high speed automation to ensure precise real time control of all building facilities.

Mr. Heuchemer, Product manager for AGSY TEC states "We chose to use CC-Link at our customer's site as it has a remarkable tolerance to electro-magnetic noise. We have used other networks but CC-link worked without noise or expensive cabling and expensive earth precautions. Another reason we used CC-Link was because it was extremely fast, not just in network speed but actual speed of response due to its low overhead protocol. This high speed will allow us to expand the system at a later date without having to slow down or re-configure the network. A major advantage for us is that it allows us to offer customers the ability to connect to building controls and machines over the same network, dramatically reducing installation costs".

The site system consists of 4 micro PLCs connected back to a central modular PLC via CC-Link running at 10 mega baud per second. The central PLC takes care of all co-ordination, monitoring and reporting for the overall system. Each Building has its own independent PLC giving localised intelligent control, which is needed in order to ensure the system operates even if the network gets interrupted between buildings.



Each of the local PLC stations uses digital and analogue signalling to control a building. The stations use PT100s to input temperature data into PID loops in the PLC which calculate temperature heating and cooling, ensuring the buildings are heated efficiently. Each Temperature control loop uses clever damping which prevents the loop control switching heaters on and off every time a door is opened or people move within a room.

Every room has a dual temperature sensor, with one in the north and one in the south. The System compensates area temperature changes due to sunlight heating through the windows, again adding to energy savings.

Connected to the centralised master PLC is a PC running AGSY TEC's own Visual Basic monitor and control software. From this central PC system operators can check status (such as which windows are open etc.) and change any building element and their associated set points from a central position.

To avoid unnecessary network traffic, the remote stations send back digital data when states have changed, but all analogue data such as temperature etc. is reported back on a real-time basis to the central master.

Christoph Lohmn, installation and service manager for AGSY TEC comments "With CC-Link we can remove station cabling when the system is running with any problems as the network is very industrialised. What we liked about CC-Link from a maintenance point of view is that we can programme the network and connected stations over a modem connected to the master PLC. This allows us to offer the customer a very competent after sales maintenance and service, and diagnose problems remotely before going to site".