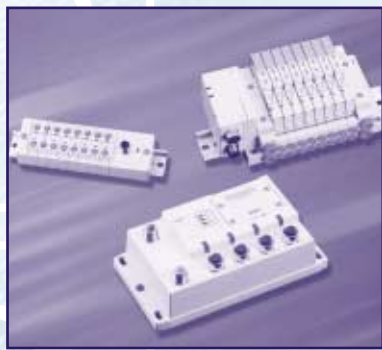


## New CC-Link products



### SMC Manifold with CC-Link interface

The use of multi-pin connectors to replace wiring inside manifold blocks, provides flexibility when adding stations or changing manifold configuration.

The SV series from SMC Pneumatics employs a multi-connector instead of the conventional lead wires for internal manifold wiring. By connecting each block

with a connector means changes to manifold stations are greatly simplified.

The SV manifold series (Type V) also includes the facility to have CC-Link modules fitted which are ideal for applications such as automation machinery, automatic lathes, transfer lines etc.

## In the News

As featured in the last newsletter, RKC has connected their SR series loop controller onto CC-Link. This was announced to the press and good coverage was achieved – to the benefit of both parties.

If you have a product that's connected to CC-Link and want to tell the world about it, let us know. Please send details to [malcolm.robins@clpa-europe.com](mailto:malcolm.robins@clpa-europe.com).



## Members European Branch (See web sit for full list)

### European Vendors

Pneumatic Valve Manifolds	Temperature Controller	Gateway Devices	Pneumatic Valve Manifolds	Load Cell Equipment	Gateway Devices	Master/Local Stations, Decentral I/O Inverter Drives, Robots, LVS, Positioning and Motion Controllers
SMC Pneumatics UK Ltd Vincent Avenue, Crownhill Milton Keynes, MK8 0AN Tel: +44-0800 1382930 Fax: +44-1908-555064	TC Ltd PO Box 130 Uxbridge UB8 2YS Tel: +44-1895-252222 Fax: +44-1895-273640	Pepperl + Fuchs GB 77 Ripponden Road Oldham, Lancs. OL1 4EL Tel: +44-161-6336431 Fax: +44-161-6246537	Festo Limited Harvest Crescent, Ancells Business Park Hants. GU13 8XP Tel: +44-1252-775000 Fax: +44-1252-775001	Yamato Scale (UK) Ltd 5 Maple Park, Lowfields Avenue Leeds SL12 6HH Tel: +44-0113-2717999 Fax: +44-0113-2717012	Bihl & Wiedemann GmbH Flaßwörthstraße 41 D-68199 Mannheim Tel: +49-621-339960 Fax: +49-621-3392239	Mitsubishi Electric Europe B.V. Gothaer Straße D-40880 Ratingen Tel: +49-2102-4860 Fax: +49-2102-486112
SMC Pneumatik GmbH Boschring 13-15 D-63329 Egelsbach Tel: +49-6103-4020 Fax: +49-6103-402139		Pepperl + Fuchs GmbH Königsberger Allee 87 D-68397 Mannheim Tel: +49-621-7760 Fax: +49-621-7761000	Festo AG & Co Ruiter Strasse 82 D-73734 Esslingen Tel: +49-711-347-0 Fax: +49-711-347-2144			

For more information, contact:

### CC-Link Partner Association – Europe

PO Box 50 • Hatfield • UK • AL10 8ZH • Tel: +44 1707 278953 • Fax: +44 1707 282873

e-mail: [partners@clpa-europe.com](mailto:partners@clpa-europe.com)

[www.CC-Link.org](http://www.CC-Link.org)



# CC-Link

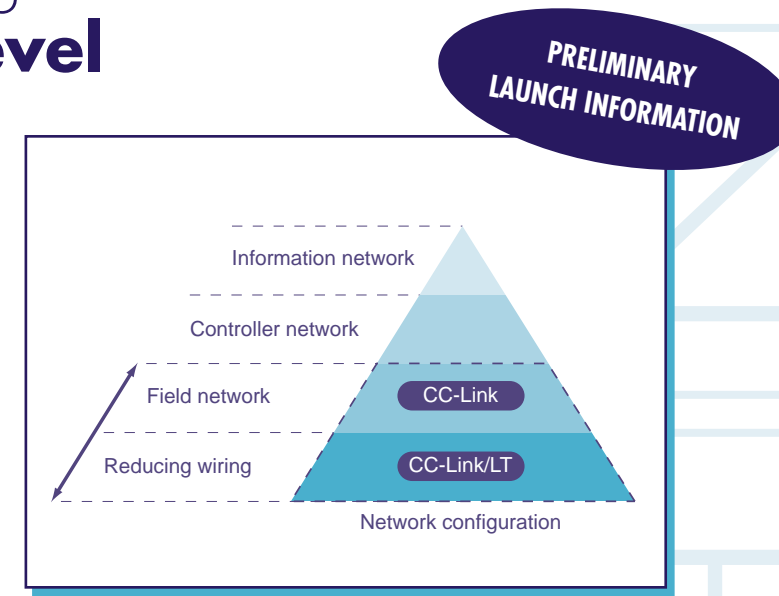
# NEWS

EUROPEAN EDITION

ISSUE 3 2002

## New CC-Link/LT targets individual sensor/actuator level

Based on the highly successful CC-Link field-level network specification, CC-Link/LT is designed to be utilized down to the individual sensor/actuator level. This allows CC-Link technology to accommodate factory automation communication while at the same time reducing wiring in control panels and field devices. Even small and medium sized machinery and equipment (with limited I/O points) can benefit by using CC-Link/LT technology. The new addition to the CC-Link open field network will contribute widely to the growth of the industrial sector worldwide.



It has been 5 years since CC-Link was originally released. The establishment of CC-Link Partner Association (CLPA) in November 2000 promoted the global use of CC-Link technology. As a result CC-Link has been approved as an international standard by SEMI in May 2001. CC-Link has been adopted in numerous industries such as automobiles, semiconductors, material handling and food processing, where a large volume of data must be communicated.

Because of the need to further reduce wiring costs by making it economical to connect fewer number of I/O points to the network, the CLPA Technical Taskforce established a Working Group to develop a solution. The result was the CC-Link/LT specification. It achieved the difficult task of providing for reduced wiring and maintaining the high communication performance for which CC-Link is known.

CC-Link/LT is optimised for bit data communication and it functions well as a branch line of a CC-Link network. It integrates seamlessly with CC-Link and provides high performance communication from the system controller down to the field

sensors and actuators. Therefore it is particularly suited for use in small to medium size machinery and equipment having limited I/O requirements. CC-Link/LT offers distinct advantages in wire reduction and costs and increased user convenience. Industries that can benefit from its use include semiconductor manufacturing equipment, material handling and conveyor systems and many others.

For the full facts visit [www.cc-link.org](http://www.cc-link.org) or return the enclosed faxback.

### Open network support

CC-Link/LT is an "open" network with specifications freely available to all registered members of the CC-Link Partner Association. Technical support in the use of CC-Link/LT is available to members of the CLPA.

### INSIDE

- Hanover Show results
- CC-Link in action
- New Products

# CC-Link helps Longslow Dairies improve productivity

## CC-Link in action

Even though the current trend from consumers is to use plastic bottles rather than glass, Longslow Dairies Group believe that in this new age of environmental friendliness and re-cycling, supplying products in glass bottles will give consumers a sensible cost effective environmental solution to milk packaging. To this end they have installed the UK's first totally automated milk bottle packing plant at their Central Dairies plant at Colwyn Bay to meet the demand.

To precipitate a modular construction of the plant, Dawson chose to use CC-Link, the latest in fieldbus technologies. The uniquely easy to install and configure fieldbus, with its high immunity to noise and flexible additional station insertion system, made it the natural choice for the backbone of communication between sections of the newly automated plant.

Longslow Dairies was Dawson's first installation to use CC-Link. The ease of adding sensors and stations to the CC-Link system made it simple to adapt to the changing customer needs that invariably happen whilst installing new equipment.

The system for the plant is divided into 7 basic sections. Each section is controlled by a small PLC, which controls all local operations and connects back to a central Master PLC using CC-Link. Utilising intelligent slaves rather than one large PLC to control the whole plant allows sections to continue operation, even if there are problems in other plant areas, ensuring high throughput and increased section efficiency.

All communications are co-ordinated by the central Master PLC. CC-Link's 10 Mega baud speed of data transfer the flexible deterministic data packaging is crucial to the success of the entire system. Using CC-Link for the distributed control, permits simultaneous controlled shut downs of even the remote sections, and makes warm starting the production process much easier.

Installation for the entire system took only 6 weeks with Dawsons working around the daily production requirements of the dairy. The use of CC-Link drastically reduced wiring installation time, which was critical as they could only install the system at night, or during shut down periods.

Dawson's re-crate machine can crate 500 bottles per minute, with



the communication (using CC-Link) between filling and re-crating being critical in avoiding bottlenecks in the production process.

The automated combination of all sections in the process allows all parts of the system to work seamlessly together. If the production is running at 100% all sections take this into account and set speeds accordingly. The high data processing of the CC-Link communications between sections ensures that all parts of the process are real-time speed synchronised. This intelligent linking of all sections, including crate washing, harmonise production and greatly reduce energy waste, as sections only run as fast as they need to.

Flexibility in the system is very important, and the one supplied by Dawson can produce any type of bottled milk without any reconfiguration. Using CC-Link's flexible station recognition system means that stations can be taken off-line without any errors occurring, and introduced at any time without fuss. This means that even a change of the system to the production of bottled orange juice takes only 20 minutes, including all wash downs and physical changeover of the actual filler carousel suitable for orange juice.

The increased efficiencies that have been achieved over the last 12 months that the system has been running are staggering. Dawson, working in partnership with Longslow Dairies, will soon expand the system even more, by linking it to Longslow's high level management system and installing remote maintenance and diagnostics tools, which will give Longslow even more control of their plant and reduce downtime even further.

# CC-Link makes its mark at Hanover

This year was the second year for CLPA-Europe to exhibit at the Hanover Messe. The booth was in Hall 7 at location B36. The booth was 8 mtr wide by 9mtr deep and was open on two sides. The location this year was much better than before and improved the image of CLPA and the number of visitors to our booth.

CLPA-EU contacted a number of its local vendor members and was successful in having a range of products on show, all of which are available in Europe, either from the manufacturer, or their local agent. Companies providing products were:-

- Contec (Panel PC)
- SMC
- Pepperl and Fuchs
- RKC
- HMS Network Communications
- Festo
- Bihl and Wiedemann
- Yaskawa
- Mitsubishi UK and Germany

In general the attendance at the fair was reduced by 3 - 5% this year, according to the Hanover Messe Management. We at CLPA had an excellent show with an increase of 10% in the total number of visitors to the booth.

The company HMS provided us with two sample products on the morning the show began, one piece of their latest CC-Link "AnyBus" embedded product, and one piece of the CC-Link "AnyBus" Communicator product. The embedded product is being sent to Japan directly after the show for compliance testing.

Visitors to the booth over the 6 days of the exhibition were as follows:-

Qty	Total	Filtered out	Valid
Monday	158	42	116
Tuesday	114	26	88
Wednesday	174	40	134
Thursday	183	35	148
Friday	129	27	102
Saturday	79	29	50
Total	837	199	638

Apart from the very good attendance at the booth, we also had many visitors from the manufacturers of Remote I/O systems, such as Hirschmann, Wago, Beckhoff, Hilscher, Muerr and Phoenix Contact.

It was evident from our discussions with visitors to the booth that there is a greater understanding of what CC-Link is, and what the



purpose of the CLPA is. This was very encouraging as this shows the position of CC-Link is being recognised and means the level of understanding is increasing. From discussions with visitors to the booth, there is now a bigger demand for businesses to export to Asia and, consequently, the theme of CC-Link being the key to open networking for Asia continues to work well for us.

During the show, we had visits from the following CLPA Board Member Companies:-

- Matsushita Electric Works (NAIS)
- WoodHead Connectivity (UK)
- Mitsubishi Electric
- CONTECT Europe
- Idec Izumi

In summary – a better result than last year in more difficult trading circumstances, so overall a very good result. We are now following up the new potential vendors who are showing interest in building CC-Link compliant product.

### New compliance tested CC-Link compatible cables

Good news! - Belden have now successfully completed compliance testing of two new CC-Link compatible cables.

Both cables are compliance tested from 156Khz at 1200 metres, up to the maximum 10Mhz at 100 metres.

Cable 1 - CC-Link Cable (without power conductors included):  
ref Belden No. YR47205

Cable 2 - CC-Link Cable (with power conductors included):  
ref Belden No. YR47198

email: [Malcolm.robins@dpa-europe.com](mailto:Malcolm.robins@dpa-europe.com) for information.