

EtherNet/IP to CC-Link Local & Intelligent Station Gateway 5209-DFNT-CCLINK

ProSoft Technology's EtherNet/IP® to CC-Link communication gateway allows Rockwell Automation® control platform users to integrate CC-Link Master compatible products with existing EtherNet/IP control networks.

The EtherNet/IP protocol driver supports the Explicit Messaging implementation of the protocol and is user-configurable as both a Client and/or a Server. As a Client, the gateway can send commands and manage data flow among a large number of devices on the EtherNet/IP network. As a Server, the gateway can provide concurrent data transfer to multiple Clients.

The CC-Link protocol driver acts as a Local or Intelligent Station, which enables easy connection to the CC-Link Master-controlled network for data transfer. Configuration options allow the gateway to occupy up to four (4) stations on the CC-Link network. Transient Messaging capability increases overall I/O data transfer capacity by more than 8,000 words. When configured as a Local Station, the gateway allows read-only viewing of the entire CC-Link Master cyclic database from all configured slave on the CC-Link network.



Features	Benefits
Powerful network integration	<ul style="list-style-type: none"> ◆ Communicate between dissimilar networks ◆ A shared, 10,000-word database exchanges information from devices on both networks ◆ Allows integration of EtherNet/IP-based systems onto a CC-Link Master-controlled network
EtherNet/IP	<ul style="list-style-type: none"> ◆ Client/Server Explicit Messaging communication supported ◆ Allows up to five concurrent Server connections from multiple network Clients ◆ Provides three concurrent Client connections, supporting up to 100 commands per Client
CC-Link Intelligent or Local Station	<ul style="list-style-type: none"> ◆ Compatible with CC-Link Version 1.10 ◆ Transient Message support for peer station communication adds more than 8,000 words of additional I/O data transfer capacity ◆ Supports up to 4 occupied slave stations with 4 data words and 32 data bits per station ◆ As a Local Station, provides a read-only list of all network slaves' cyclic and status data ◆ CC-Link Partner Association (CLPA) Certification
Backed by ProSoft Technology®	<ul style="list-style-type: none"> ◆ 20-year history of delivering high-quality, reliable solutions designed with you in mind ◆ Free, unlimited, worldwide Technical Support by phone anytime for pre-sale, set-up, or troubleshooting support help you get going sooner and stay running longer ◆ Three-Year Warranty ensures reliability and protects against equipment failures ◆ Free ProSoft Software tools tightly integrated with our gateway hardware...a simple and quick, total solution to help you make our gateways fit your applications

Configuration

ProSoft Configuration Builder (PCB) provides a PC-based software configuration solution for quick and easy management of gateway configuration files, as well as viewing gateway and network diagnostics. The CC-Link Setup Guide and sample configuration provide a quick and easy example with step by step instructions on how to move data from one network to the other.

General Specifications

ProLinx® Communication Gateways provide connectivity for two or more dissimilar network types. The gateways, encased in sturdy extruded aluminum, are stand-alone DIN-rail-mounted solutions that provide data transfer between many of today's most widely used industrial automation.

EtherNet/IP

The EtherNet/IP protocol is one of the primary connectivity tools used by different Rockwell Automation® platforms.

- ◆ The Explicit Messaging aspect of the protocol has been implemented to provide asynchronous data transfer between the ProLinx gateway and Rockwell Automation hardware.
- ◆ Supported PLC Types PLC-2®, PLC-3®, PLC-5®, SLC™500, ControlLogix™, CompactLogix™, and MicroLogix™
- ◆ Messaging Types As a Client, PCCC Explicit Messaging
As a Server, PCCC or CIP Explicit Messaging
- ◆ Command Sets PLC-2/PLC-3/PLC5 Basic Command Set
PLC5 Binary Command Set
PLC5 ASCII Command Set
SLC500 Command Set

CC-Link

CC-Link (Control & Communication Link) is an open-standard-based communication protocol that enables easy connection to Mitsubishi and other Master PLCs.

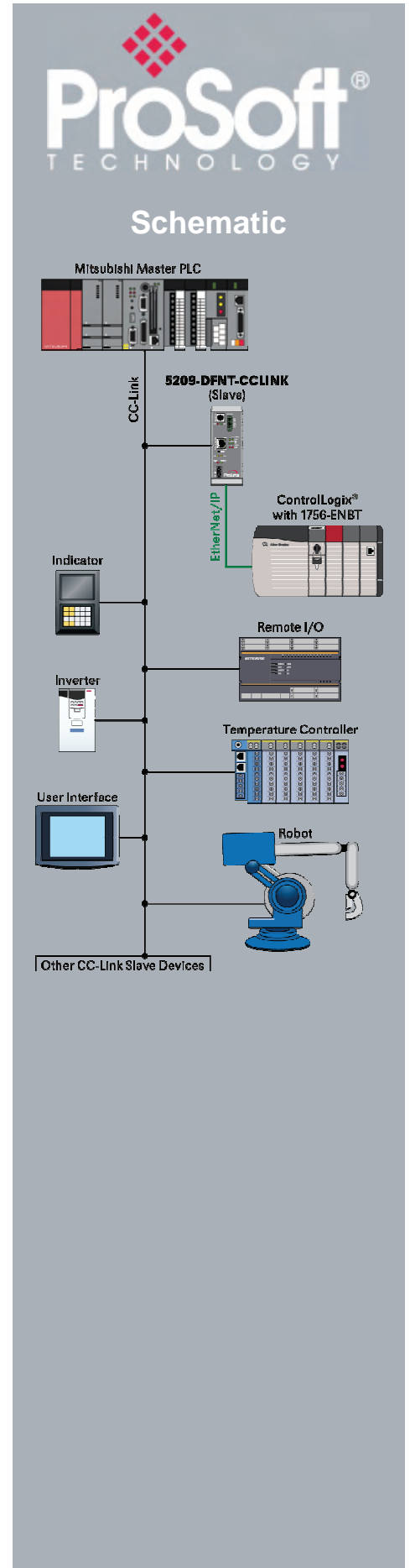
- ◆ CC-Link is one of the dominant protocols used in Asia and is rapidly gaining acceptance worldwide.
- ◆ The ProLinx CC-Link interface is a slave (Local Station or Intelligent Device), which can be connected to a CC-Link Master that controls data transfer.
- ◆ The gateway is a stand-alone, DIN-rail-mounted solution that provides one CC-Link network port with TE-CON7 4P connector and an Ethernet port with RJ45 connector.

Functional Specifications

EtherNet/IP Server

In Server mode, the gateway accepts messages from one or more Clients that want to read data from or write data to the gateway's internal memory database.

Miscellaneous	Binary, Integer or Floating point data supported, as well as other special data types, like timers, counters, ASCII files and more
EtherNet/IP Server	Five independent TCP/IP Server sockets permit multiple Clients to see and change all user data contained in the gateway. The Server supports CIP and PCCC Explicit Message connections from EtherNet/IP Clients.
PCCC Data File Emulation (the Server looks like an SLC 5/05 to the Clients)	Data Table File Size: 100 or 1000 words Data Table File Start: - Fixed at N10 Data Table Range: N10 to N109, based on file size set to 100, or N10 to N19, based on file set to 1000 (Other data table types also supported)
CIP Services Supported	0x4C - CIP Data Table Read 0x4D - CIP Data Table Write



EtherNet/IP Client

In Client mode, the gateway controls read and write data transfers between the itself and other EtherNet/IP devices. Data transfer can be initiated and executed with no logic programming required in the target Rockwell Automation hardware.

EtherNet/IP Client	Three simultaneous Client connections
Command List	Each Client supports up to 100 read or write commands per Client, allowing up to three concurrent connections with Ethernet/IP devices.
Command Poll List	User can enable or disable polling on a per-command basis, as well as choose to write continuously or only on change of data.
Configurable Parameters	Number of commands (Up to 100 per client) Min Command Delay Response Timeout Retry Count (and much more)

CC-Link

CC-Link technology is based on an Application Specific Integrated Circuit (ASIC) designed and provided by Mitsubishi Electric Automation. Each CC-Link station transfers 4 words and 32 bits of I/O data to and from the Master station. The CCLINK gateway can occupy up to 4 consecutive stations on the CC-Link network increasing it's I/O data transfer capacity.

Maximum Number of Occupied Stations	4 stations, consecutive addresses
Maximum Number of Devices per Network	26-64 Devices depending on Local and Slave Stations configured
Device Types Supported	Intelligent Device and Local Station
CC-Link Version supported	CC-Link Version 1.10 cyclic data transmission
Message handling	Cyclic Messages and Transient Messages
Cyclic Data Capacity	24 input data words and 24 output data words. Up to 4 slave stations supporting 4 words/32 bits per slave
Additional I/O Data Transfer Capacity	Transient Messaging extends I/O data transfer capacity by more than 8,000 additional words
Transient Message Commands	System Information, Memory Access Information, RUN, STOP, Line Test, Memory Read, and Memory Write commands
Communication speed	10 Mbps, 5 Mbps, 2.5 Mbps, 625 kbps, 156 kbps
Transmission path format	Bus format (EIA RS485 conformance)
Transmission format	HDLC conformance
Error control system	CRC (X16+X12+X5+1)

Conformance Testing

Conformance testing through the CC-Link partner Association (CLPA) ensures that the gateway meets the performance specifications required to become CC-Link certified.



Where Automation Connects Global Distribution

We think like you do

ProSoft Technology® products are distributed and supported worldwide through a network of over 500 distributors in over 50 countries. Our knowledgeable distributors are familiar with your application needs. For a complete list of distributors, go to our web site at www.prosoft-technology.com

Global Support

We are there for you


All ProSoft Technology products are backed with free, unlimited technical support. Contact our worldwide Technical Support team directly by phone or email.

Global Offices

We are where you are

ProSoft Technology has regional offices worldwide available to help you with all your industrial application needs. If you need help choosing a ProSoft Technology solution for your particular application check out our contact information under distributor sales on the web site at www.prosoft-technology.com. Whether your application is large or small, our technical professionals are there to help you choose the right communication solution.

Hardware Specifications

Specification	Description												
Power Supply	24 VDC nominal 18 to 32 VDC allowed Positive, Negative, and Ground terminals 2.5 mm screwdriver blade-sized terminals												
Current Load	500 mA max@ 32 VDC max												
Operating Temperature	-20 to 50°C (-4 to 122°F)												
Storage Temperature	-40 to 85°C (-40 to 185°F)												
Relative Humidity	5% to 95% (non-condensing)												
Dimensions	Standard: 5.20H x 2.07W x 4.52D in. (13.2cmH x 5.25cmW x 11.48cmD) Extended: 5.20H x 2.73W x 4.52D in. (13.2cmH x 6.934cmW x 11.48cmD)												
General LED Indicators	Power and General Status Application Status Serial Port Activity LED Serial Activity and Error LED Status												
CC-Link LED Indicators	Run (Network Status) L Run (Data Link Execution) L Err (Data Link Comm Error) SD (Sending Data LED) RD (Receiving Data LED) ERR (Switch Setting Error)												
Configuration Serial Port	DB-9M RS-232 only No hardware handshaking												
Ethernet Port	RJ45 Connector, 10Mbit, half-duplex only Link and Activity LED indicators Electrical Isolation 1500 V rms at 50 Hz to 60 Hz for 60 s, applied as specified in section 5.3.2 of IEC 60950: 1991 Ethernet Broadcast Storm Resiliency = less than or equal to 5000 [ARP] frames-per-second and less than or equal to 5 minutes duration												
CC-Link Interface	 <table border="1"> <thead> <tr> <th>Pin</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>DA</td> <td>Data Communication line A</td> </tr> <tr> <td>DB</td> <td>Data Communication line B</td> </tr> <tr> <td>DG</td> <td>Digital Ground</td> </tr> <tr> <td>SLD</td> <td>Shield</td> </tr> <tr> <td>FG</td> <td>Frame Ground</td> </tr> </tbody> </table>	Pin	Description	DA	Data Communication line A	DB	Data Communication line B	DG	Digital Ground	SLD	Shield	FG	Frame Ground
Pin	Description												
DA	Data Communication line A												
DB	Data Communication line B												
DG	Digital Ground												
SLD	Shield												
FG	Frame Ground												
Shipped with Each Unit	Mini-DIN to DB-9M serial cable 4 ft RS-232 configuration cable 2.5mm screwdriver CD (docs and Configuration utility) CC-Link to Terminal Block connector												

Agency Approval & Certification

ISA

CC-Link Partner Association



Additional Products

ProSoft Technology® offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms.

Visit our web site at <http://www.prosoft-technology.com> for a complete list of products.

Ordering Information

To order this product, please use the following. If you are unsure which product to select, please contact your local distributor.

EtherNet/IP to CC-Link Local Station & Intelligent Device Gateway

5209-DFNT-CCLINK

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to <http://www.prosoft-technology.com>

Distributors:

Place your order by email or fax to:

North American / Latin American / Asia Pacific

orders@prosoft-technology.com,
fax to +1 661.716.5101

Europe
europe@prosoft-technology.com,
fax to +33 (0) 5.61.78.40.52

Copyright © ProSoft Technology, Inc. 2013. All Rights Reserved. 11/7/2013

Specifications subject to change without notice.