Maximise network flexibility with SST™ Communication Modules for rapid connection of Rockwell ControlLogix systems to Modbus Serial networks

SST™ communication modules for Rockwell ControlLogix systems are the perfect choice for a wide range of applications including factory automation, process control and complex machines.

Each SR4 module has 4x Modbus serial communication channels that act independently and are electrically isolated from each other to perform powerful data exchange with industrial devices such Modbus Masters or Slaves.

Time-saving configuration and diagnostics can be achieved using the console software connected remotely via EtherNet/IP or RSLinx. Each module is delivered with its custom Add-On-Profile (AOP) for easy integration into the RSLogix 5000 software. The I/O data transfer between the module and the ControlLogix CPU (processor) supports 2 modes: a “Direct Mode” for sharing up to 248 Input words + 248 Output words without ladder logic, or a “Paging Mode” for sharing up to 32,000 I/O words.

CLXT modules withstand high-temperatures and perform in harsh, corrosive environments to meet a wider range of customer application demands. For additional information visit: www.molex.com/link/sstcommunicationmodules.html

Features and Benefits

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
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<tr>
<td>Fully integrated into Rockwell Integrated Architecture Builder™ and ProposalWorks™</td>
<td>Quickly configure a system and create a bill of materials</td>
</tr>
<tr>
<td>More communications channels and protocols supported on a single module compared to the competition</td>
<td>Reduces number of modules required; saves space in the backplane and lowers system costs</td>
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<td>Direct I/O mapping; no ladder logic to write</td>
<td>Reduces programming time by over 90%; user trials shown time is cut from days to hours</td>
</tr>
<tr>
<td>I/O data refresh every PLC cycle, up to 255 Read/Write Cyclic access per channel</td>
<td>Improves performance; faster system response and enhanced productivity</td>
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<tr>
<td>New user-friendly configuration tool with visual cyclic function screen</td>
<td>Simplifies user training and commissioning; easy configuration</td>
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<tr>
<td>Software package with advanced visual diagnostic tools included</td>
<td>Easy troubleshooting</td>
</tr>
<tr>
<td>Share up to 32K words of I/O process data with a Rockwell CPU using a single module</td>
<td>No need to use multiple cards in large applications</td>
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<tr>
<td>Independent, electrically isolated Serial channels</td>
<td>Improves reliability; prevents noise transfer to other channels</td>
</tr>
<tr>
<td>Each port can be set-up as Modbus Master or Slave</td>
<td>Provides extreme flexibility and can reduce system costs</td>
</tr>
<tr>
<td>CLXT modules feature wider temperature ranges and conformal coated, harsh-duty components</td>
<td>Use with Rockwell ControlLogix XT PLCs Designed to operate in harsh, corrosive environments</td>
</tr>
</tbody>
</table>
Applications

Factory automation and process control:

- Oil and gas plants
- Oil drilling rigs
- Water, wastewater treatment
- Pharmaceutical
- Food and beverage
- Consumer and packaged goods
- Fibers and textiles
- Automotive
- Steel
- Mining, minerals and cement
- Chemical, petrochemical
- Marine
- Military

Specifications

Hardware

BUS INTERFACE
Rockwell Allen-Bradley 1756 ControlLogix
Support multiple modules in a chassis
Local and remote rack

MEMORY
128 MB of onboard memory
8 MB of flash memory (user configuration data and firmware)

DIAGNOSTICS
4 characters display
3 LED indicators:
1 - health of the network (COMM)
2 - communication status (SYS)
3 - initialization complete and module is ok (OK)

USB PORT
Type A, USB 2 and 1.1 compatible
User configuration boot
Module firmware upgrade

CURRENT CONSUMPTION
850 mA @ 5V or 1.75 mA @ 24V

OPERATING TEMP
0 up to +60˚C

STORAGE TEMP
-40 up to +85˚C

REGULATORY APPROVALS
CE, FM Approved C,US
Class 1 Div 2 – UL 1604 RoHS

CONFIGURATION/ DIAGNOSTICS
Windows-based software tools
OS Supported: Windows XP, 7 (32, 64-bit), Vista, 8 (32, 64-bit)
Module USB port (configuration only)

Network
PORT
4 x Serial ports

SPEED
110 to 115200 bps

PARITY
None, even, and odd

DATA BITS
5, 6, 7, or 8
STOP BITS
1 or 2

CONNECTOR
RJ45 (DB9 male supplied cable)

ELEC. INTERFACE
RS232 and RS485, 500V galvanic insulation

PROTOCOL
Master
RTU or ASCII Mode
Maximum slave: 127 slaves
Function code: 0, 1, 2, 3, 4, 5, 6, 15, 16
Data format: Intel® / Motorola®

Slave
RTU or ASCII Mode
32K words / 32K bits shared memory devices
Function Code: 0, 1, 3, 5, 6, 15, 16
Typical System Architecture

Additional Product Information

Visual Cyclic Function Configuration screen showing data-overlapping errors, data mapping, table areas and message details

Simple to transfer data with Add-On Instructions

Flexible Database Configuration options

Ordering Information

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Engineering No.</th>
<th>Serial Ports</th>
<th>PLC Supported</th>
<th>Product Attributes</th>
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<tr>
<td>112078-0001</td>
<td>SST-SR4-CLX-RLL</td>
<td>4</td>
<td>Rockwell ControlLogix</td>
<td>Remote Link Library (RLL) feature</td>
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<tr>
<td>112078-0002</td>
<td>SST-SR4-CLX-RLL-CC</td>
<td></td>
<td>Rockwell ControlLogix</td>
<td>Remote Link Library (RLL) Feature Conformal Coated</td>
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<tr>
<td>112078-0003</td>
<td>SST-SR4-CLXT-RLL</td>
<td></td>
<td>Rockwell ControlLogix XT</td>
<td>Remote Link Library (RLL) Feature Conformal Coated CLXT module components</td>
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