molex®

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

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

SST™ Modbus Serial Communication Module
112078-0001
4 Serial Ports

CLXT Modbus Serial Communication Module
112078-0003

molex®

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

Automotive production lines

Water, wastewater treatment

Food and beverage

Oil and gas, chemical and petrochemical Plants

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
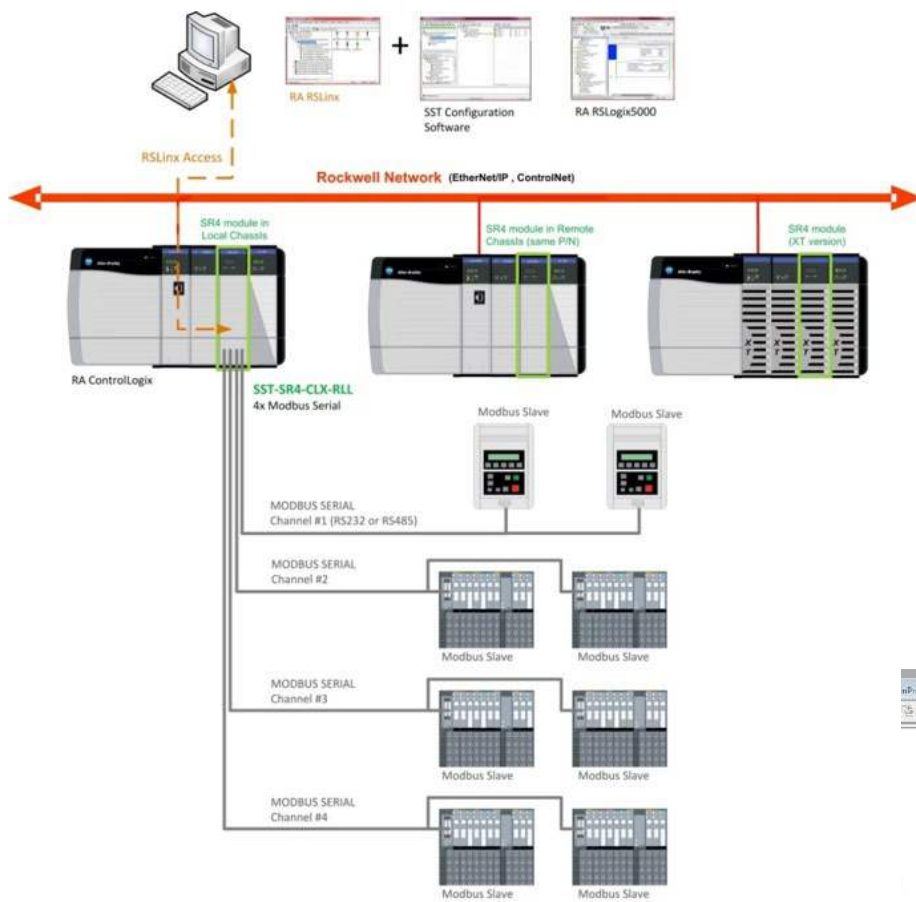RS232 and RS485, 500V galvanic insulation

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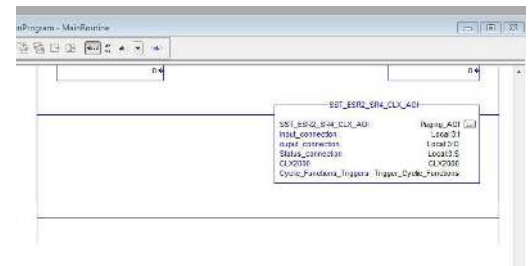Function code: 0, 1, 2, 3, 4, 5, 6, 15, 16
Data format: Intel® / Motorola®

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

molex®

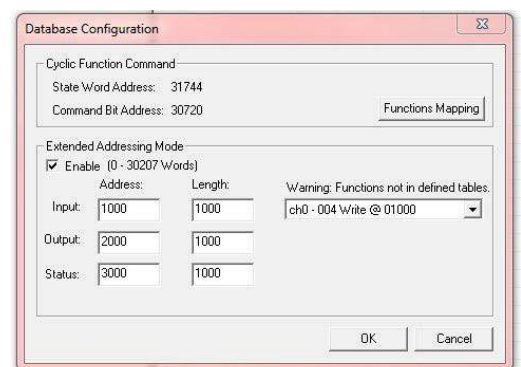## Typical System Architecture

Additional Product Information

Simple to transfer data with Add-On Instructions

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

Flexible Database Configuration options

Ordering Information

Order No.	Engineering No.	Serial Ports	PLC Supported	Product Attributes
112078-0001	SST-SR4-CLX-RLL	4	Rockwell ControlLogix	Remote Link Library (RLL) feature
112078-0002	SST-SR4-CLX-RLL-CC		Rockwell ControlLogix	Remote Link Library (RLL) feature Conformal Coated
112078-0003	SST-SR4-CLXT-RLL		Rockwell ControlLogix XT	Remote Link Library (RLL) feature Conformal Coated CLXT module components

www.molex.com/link/sstcommunicationmodules.html