



## 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 as 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](http://www.molex.com/link/sstcommunicationmodules.html)

### Features and Benefits

Fully integrated into Rockwell *Integrated Architecture Builder™* and *ProProposalWorks™*

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

## Brad® SST™ Communication Modules for Rockwell ControlLogix

112078 Modbus Serial connectivity



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



CLXT Modbus Serial Communication Module 112078-0003

## 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



Automotive production lines



Food and beverage

## Brad® SST™ Communication Modules for Rockwell ControlLogix



Water, wastewater treatment



Oil and gas, chemical and  
petrochemical Plants

#### 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

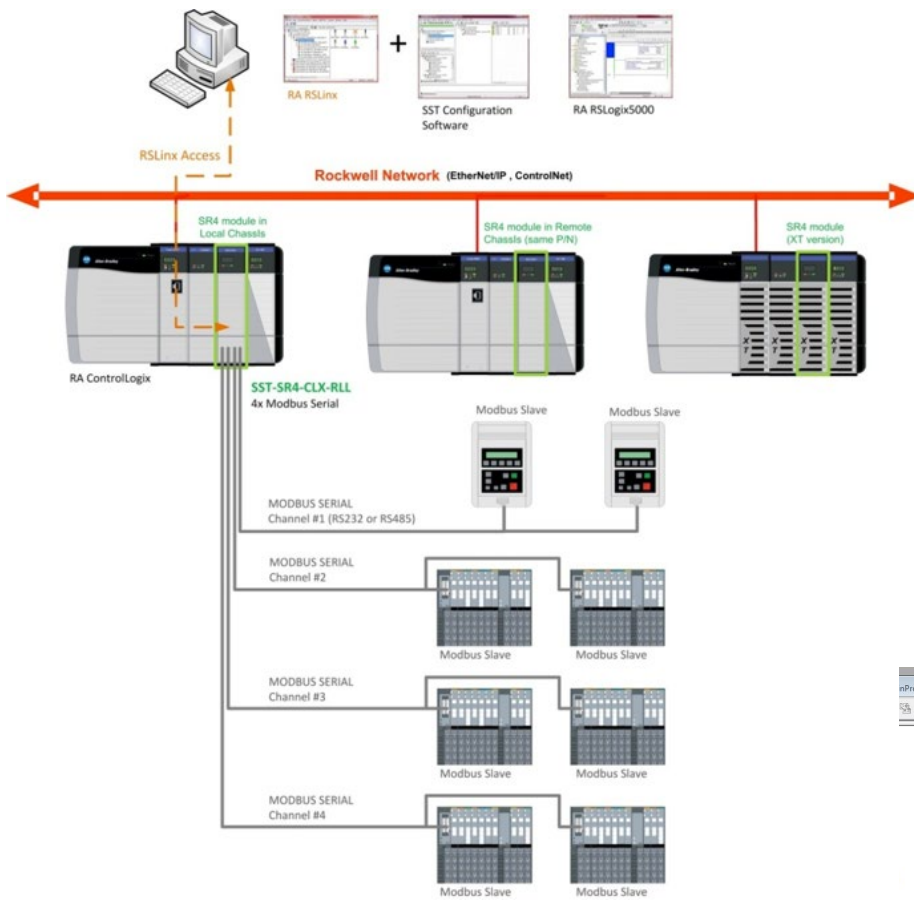
##### Master

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

##### Slave

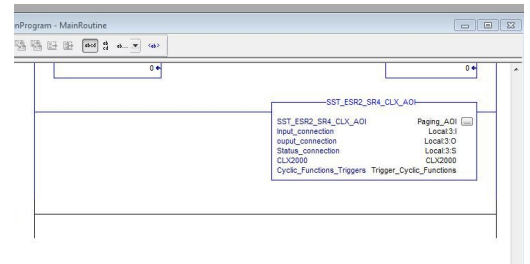
RTU or ASCII Mode  
32K words / 32K bits shared  
memory devices  
Function Code: 0, 1, 3, 5, 6, 15, 16

## Typical System Architecture

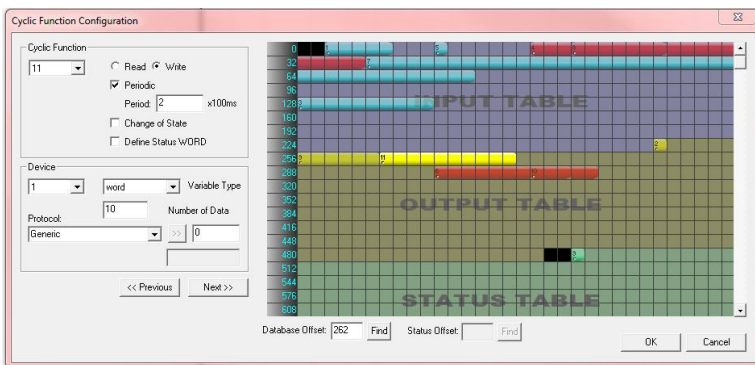


**Brad® SST™  
Communication  
Modules for Rockwell  
ControlLogix**

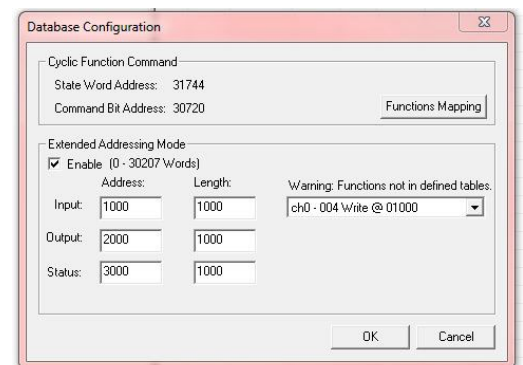
## Additional Product Information



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			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

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