



Maximise network flexibility with SST™ Communication Modules for rapid connection of Rockwell ControlLogix systems to Modbus TCP or Siemens Industrial Ethernet and 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.

The ESR2 family module connects ControlLogix controllers to various non-Rockwell protocols such as, Modbus serial, Modbus TCP and Siemens Industrial Ethernet.. Each module such as, Modbus TCP and Siemens Industrial Ethernet has 1x Ethernet + 2x Serial channels protocols that act independently to perform powerful data exchange with industrial devices such as Modbus Masters or Slaves and Siemens S5/S7 PLCs.

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 RSLinx 5000 software. The I/O data transfer 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

Simultaneously run Ethernet and Serial protocols: Modbus TCP and Siemens Industrial Ethernet (Simatic® S5/S7 PLCs)

Extremely versatile solution; perfect for concentrator or gateway applications

More communications channels and protocols supported on a single module compared to the competition

Reduce number of modules required; save space in the backplane and lower 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

Benefit from faster configuration, reduced configuration errors and a short learning curve

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

Suitable for large applications, no need to use multiple cards

Independent, electrically isolated serial channels

Improves reliability; prevents noise transfer to other channels

Simultaneously manage Ethernet protocols in both Client and Server modes

Module can receive unsolicited data from a remote PLC (such as critical alarm bits)

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

112073 Modbus Serial, Modbus TCP and Siemens Industrial Ethernet connectivity

MODBUS TCP

SIEMENS



ESR2-CLX Module: 112073-0001
1 Ethernet + 2 Serial Ports
Supporting Modbus TCP,
Siemens Industrial Ethernet
+ Modbus Serial supporting
Modbus Serial, Modbus TCP and
Siemens Industrial Ethernet



ESR2-CLXT Module:
112073-0003

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



Automotive production lines



Food and beverage

Brad® SST™ Communication Modules for Rockwell ControlLogix



Water, wastewater treatment



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

DIAGNOSTICS

4 characters display
3 LED indicators

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

RoHS compliant
CE
FM approved, C, US
Class I Div 2, Groups A,B,C,D
Marine (RINA)
Korea CC

CONFIGURATION/ DIAGNOSTICS

Windows-based software tools
OS Supported:
Windows XP, 7 (32, 64-bit),
Vista, 8 (32, 64-bit)

Network – Ethernet Port

PORT

1 Ethernet port

SPEED

10/100 Mbps, auto-negotiation

PROTOCOL

Simultaneous Client/Server
Support TCP and UDP connection

Client mode

Siemens S7 (S7-1200, S7-200,
S7-300, and S7-400) Client and
Server modes

Siemens S5 Client and Server
modes

Connect up to 128 Modbus, Siemens
server devices

Support up to 4 simultaneous
requests to a target device

Function code: 0, 1, 2, 3, 4, 15,16

Server mode

32K words / 32K bits shared memory

Function Code: 0, 1, 3, 15, 16

Connect up to 60 Siemens PLCs

Network – Serial Port

PORT

4 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®

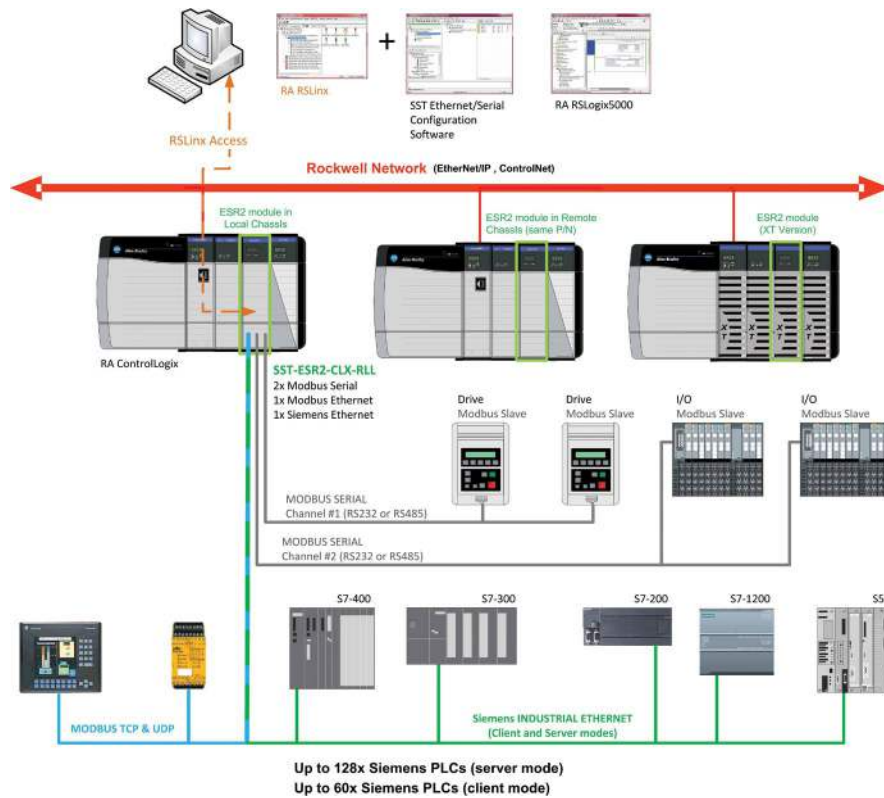
Slave

RTU or ASCII Mode

32K words / 32K bits shared
memory devices

Function Code: 0, 1, 3, 5, 6, 15, 16

Typical System Architecture

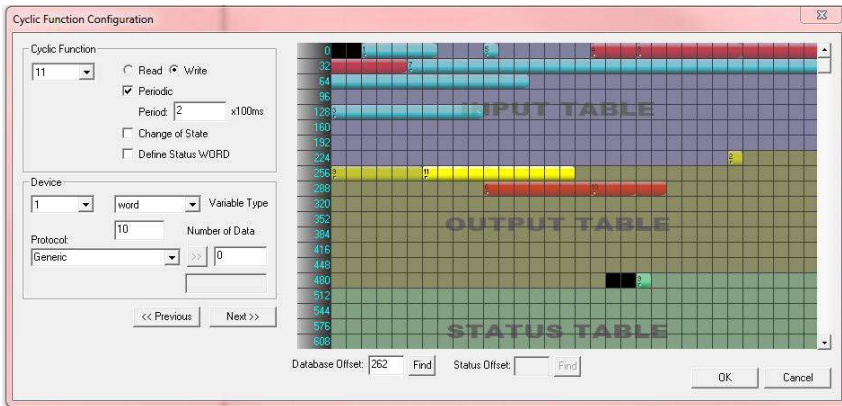


**Brad® SST™
Communication
Modules for Rockwell
ControlLogix**

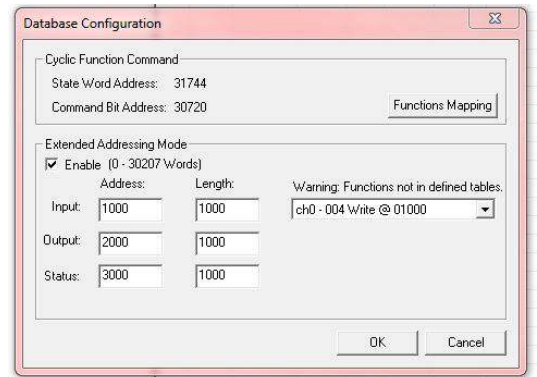
Additional Product Information



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.	Ethernet Ports	Serial Ports	PLC Supported	Product Attributes
112073-0001	SST-ESR2-CLX-RLL	1	2	Rockwell ControlLogix	Remote Link Library (RLL) feature
112073-0003	SST-ESR2-CLX-RLL-CC				Remote Link Library (RLL) feature Conformal Coated
112073-0002	SST-ESR2-CLXT-RLL			Rockwell ControlLogix XT	Remote Link Library (RLL) feature Conformal Coated CLXT module components

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