

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 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<sup>™</sup> 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 RSLogix 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**

ranges and conformal coated, harsh-duty

components

Fully integrated into Rockwell Integrated Quickly configure a system and create a bill Architecture Builder™ and ProsposalWorks™ of materials Simultaneously run Ethernet and Extremely versatile solution; perfect for Serial protocols: Modbus TCP and Siemens concentrator or gateway applications Industrial Ethernet (Simatic® S5/S7 PLCs) More communications channels and Reduce number of modules required; save protocols supported on a single module space in the backplane and lower system compared to the competition 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 Improves performance; faster system Read/Write cyclic access per channel response and enhanced productivity New user-friendly configuration tool with Benefit from faster configuration, reduced visual cyclic function screen configuration errors and a short learning curve Software package with advanced visual Easy troubleshooting diagnostic tools included Share up to 32K words of I/O process data Suitable for large applications, no need to with a Rockwell CPU using a single module use multiple cards Independent, electrically isolated serial Improves reliability; prevents noise transfer channels to other channels Simultaneously manage Ethernet protocols Module can receive unsolicited data from a in both Client and Server modes remote PLC (such as critical alarm bits) CLXT modules feature wider temperature Use with Rockwell ControlLogix XT PLCs

Designed to operate in harsh, corrosive

environments

# Brad<sup>®</sup> SST<sup>™</sup> 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

# 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



#### **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



Automotive production lines



Food and beverage

#### **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

# Brad<sup>®</sup> SST<sup>™</sup> Communication Modules for Rockwell ControlLogix



Water, wastewater treatment



Oil and gas, chemical and petrochemical plants

#### **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

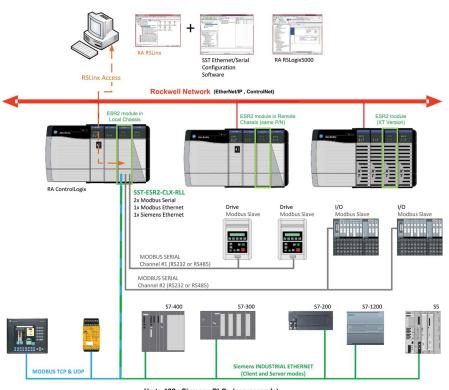
RTU or ASCII Mode Maximum slave: 127 slaves Function code: 0, 1, 2, 3, 4, 5, 6, 15, 16 Data format: Intel® / Motorola®

#### Slave

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



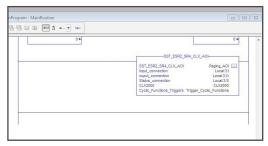
# **Typical System Architecture**



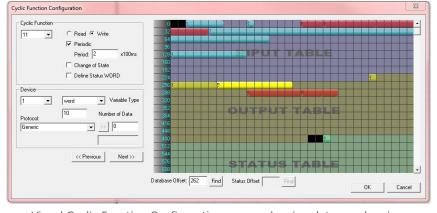
Up to 128x Siemens PLCs (server mode) Up to 60x Siemens PLCs (client mode)

**Additional Product Information** 

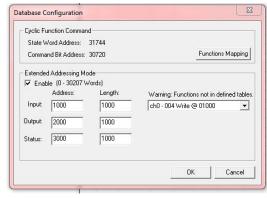
# Brad<sup>®</sup> SST<sup>™</sup> Communication Modules for Rockwell ControlLogix



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.	<b>Ethernet Ports</b>	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

www.molex.com/link/sstcommunicationmodules.html