Maximise network flexibility with SST™ Communication Modules for rapid connection of Rockwell SLC 500 systems to AS-interface networks

Actuator Sensor Interface (AS-i) is an open fieldbus designed for easy connection of simple field (Slave) I/O devices (e.g., binary ON/OFF devices such as actuators, sensors, rotary encoders, analog inputs and outputs, push buttons, and valve position sensors). AS-i technology offers a low-cost fieldbus networking solution for industrial automation applications, including conveyor controls, packaging machines, process control valves, electrical distribution systems, airport carousels, elevators, bottling lines and food production lines.

SST™ AS-i communication modules are designed for chassis mounting in Rockwell SLC 500 or higher PLCs (controllers). The modules interface with signals coming from AS-i field devices, transfer that information to the PLC and send control information back to AS-i actuator devices.

Molex offers a complete AS-i solution backed up by global Molex technical support and inventory for global users of the most popular Rockwell Automation controllers. For more information visit: www.molex.com/link/sstcommunicationmodules.html

Features and Benefits

- Compliance with AS-Interface specification 3.0
- Supports 2 independent AS-i networks with up to 124 AS-i slave devices
- Flash memory for storage of AS-i master I/O configuration
- Fast, easy setup into SLC backplane
- AS-i I/O data mapped into the SLC processor’s I, O files
- Status information is mapped into the M0 and M1 files
- Multiple SST-ASI-SLC modules can be used in one SLC rack
- Configures scanner with RSLogix™ 500
- Less installation effort required.
- Single flat cable used for both power and data transmission
- Easy diagnostics using built-in LEDs
- High-speed deterministic communication
- No configuration software is required; automatic address mode and automatic identification of analog devices

Applications

**Industrial Automation:**

Food and Beverage
- Valve control
- Tank farms
- Non cross-contamination lines

Pharmaceutical
- Valve control
- Batch processing
- GMP

Material handling
- Conveyors
- Diverters
- Sorters
- Baggage handling

Material Handling

Valve Control, Labelling and Filling
Specifications

NETWORK SPECIFICATIONS
Protocol:
- AS-i Specification Version 3.0
- 2 x AS-i Master channels

AS-i Power Consumption: 70 mA
Slaves Supported: Up to 62 slaves on each channel

I/O Mapping (for SLC 500):
- Maximum I/O:
  - I/O files: 32 words in, 32 words out
  - M0 and M1 files: 32 words in/out

AS-i Cycle Time: 150 µsec* (number of slaves +2)

Required Accessories:
- Certified AS-i power supply required

Connector:
- Two 4-pin (one for each AS-i network)

HARDWARE SPECIFICATIONS
Bus Interface:
- Rockwell SLC 500 or higher

Processor:
- Renesas M16C processor

Memory:
- 31 Kbytes of internal RAM
- 512 Kbytes of internal flash memory (for storage of firmware)
- 32 Kbytes of external RAM
- 16 Kbytes of external EEPROM (for storage of configuration data)

Diagnostics:
- Three LEDs indicate:
  - Overall status of scanner operations
  - Status of channel 1
  - Status of channel 2

Backplane Current Consumption:
- 120 mA @ 5V DC
- The 5 VDC backplane voltage must be from a supply delivering Separate Extra Low Voltage (SELV)

Operating Temperature:
- 0 up to +50°C

Storage Temperature:
- -25 up to +70°C

Humidity: (RH) level 5 to 95%

Vibration: Tested according to IEC 68-2-6 Test Fc

Shock: Tested according to IEC 68-2-27

Ordering Information

<table>
<thead>
<tr>
<th>SAP Material Number</th>
<th>Catalog Number</th>
<th>Protocol Supported</th>
<th>Rockwell PLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>112019-0004</td>
<td>SST-ASI-SLC</td>
<td>AS-i</td>
<td>Rockwell SLC 500</td>
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Conformance:
- RoHs compliant
- CE
- AS-i certified

www.molex.com/link/sstcommunicationmodules.html