AS-Interface® Scanner

For Allen-Bradley® SLC™ 5/03 Controller or Higher

Features

- **Compliance with AS-Interface specification 2.1**
- **Supports 2 independent AS-i networks with up to 124 AS-i slave devices**
- **Flash memory for storage of AS-Interface Master I/O configuration**
- **Fast, easy set up into SLC backplane**
- **AS-Interface I/O data mapped into the SLC processor's I, O files**
- **Status information is mapped into the MO and M1 files**
- **Multiple SST-ASI-SLC modules can be used in one SLC rack**
- **Configures scanner with RSLogix™ 500**

Common AS-i Advantages

- **Less installation effort required.** Single flat cable used for both power and data transmission.
- **Simple and inexpensive bus interface.** Protocol specific ASICs implemented.
- **Deterministic system behavior.** Cyclic polling with a 10 ms maximum cycle time (150 μsec per slave).
- **Configuration software not required.** Automatic address mode.
- **Reduced maintenance costs.** Standardized components used.

Typical Applications

- **Machine tool industry**
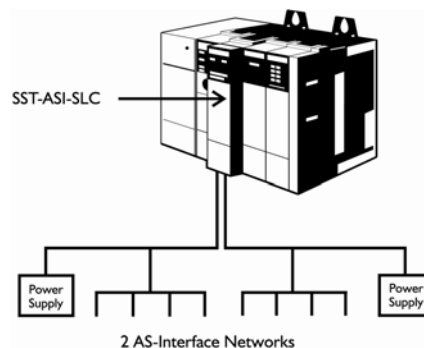- **Handling systems**
- **Conveyor solutions**

AS-Interface Functionality

The AS-Interface network is a single master-slave system with cyclic polling. Each network supports up to 62 slaves, each with up to 4 Inputs and 3 Outputs. Up to 248 inputs and 186 outputs can be connected on each rung. Intelligent slaves with their own integrated AS-i ASIC are assigned their own slave address. A single flat cable transmits both power and information to each slave. In addition to the data exchange, AS-Interface networks provide a detailed diagnostic interface regarding the power behavior of the network.

Description

The SST AS-Interface Scanner connects an Allen-Bradley SLC 500 series PLC to 2 independent AS-Interface networks. The SST AS-Interface Scanner fully supports the new AS-Interface specification 2.1 and is fast and easy to setup into the PLC backplane. The transfer of analog signals via AS-Interface as well as the diagnostics of the AS-Interface peripheral fault are integrated in the SST AS-Interface Scanner.

AS-Interface® Scanner

Other AS-i Solutions

Other PLC Scanners
- Allen-Bradley® ControlLogix®
- Allen-Bradley CompactLogix / MicroLogix™ 1500

Gateways
- Connect AS-Interface to:
  - ➢ PROFIBUS
  - ➢ DeviceNet
  - ➢ CANopen
  - ➢ Ethernet TCP/IP
  - ➢ Serial

I/O Modules
- IP65 Analog I/O Modules
- IP67 Digital I/O Modules

Accessories
- Power Supply
- Cable

PLC Network Interface

Woodhead

Empowering the Industrial Infrastructure

Network Specifications

Protocol	• AS-Interface Master • Compliance with AS-Interface specifications 2.1
AS-Interface Power Consumption	• 50 mA
Slaves Supported	• Up to 62 slaves on each network • Up to two networks supported
I/O Mapping (for SLC™ 500)	Maximum I/O: • I/O files: 32 Words In, 32 Words Out • MO files: Words In - typically 113, maximum 461 • M1 files: Words Out - typically 113, maximum 461
AS-i Cycle Time	• 150µsec * (number of slaves +2)
Required Accessories	• Certified AS-i power supply required
Connector	• Two 4-pin Phoenix connectors (one for each AS-i network) (Phoenix part number: MSTB 2,5/4-ST-5,08)

Hardware Specifications

Bus Interface	Allen-Bradley SLC™ 5/03 controller or higher
Processor	Intel 80C188 processor
Memory	128 Kbytes of local 80C188 RAM 512 Kbytes of sectored flash memory, for storage of firmware and configuration data
Diagnostics	Three LEDs indicate: 1. Overall status of scanner operations 2. Status of channel 1 3. Status of channel 2
Backplane Current Consumption	500 mA @ 5VDC The 5VDC backplane voltage must be from a supply delivering Separate Extra Low Voltage (SELV).
Operating Temperature	0ºC (32ºF) up to +50ºC (122ºF)
Storage Temperature	-25ºC (-13ºF) up to +70ºC (158ºF)
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

Part Number	Description
SST-ASI-SLC	AS-i Scanner for A-B SLC 5/03 or higher

Related Products

Part Number	Description
SST-ASI-CLX	AS-i Scanner for A-B ControlLogix
SST-ASI-CMX	AS-i Scanner for A-B CompactLogix/MicroLogix 1500
DRL-2ASI-PFB	Gateway, AS-i to PROFIBUS DP Slave
DRL-2ASI-DN	Gateway, AS-i to DeviceNet™, Group 2 Slave
DRL-2ASI-CAN	Gateway, AS-i to CANopen Slave, DS 401
DRL-2ASI-ETH	Gateway, AS-i to Modbus TCP/IP, IEEE 802.3
DRL-2ASI-SER	Gateway, AS-i to Modbus Serial, RS485
TAS-ANA-4xx*	I/O Module, IP65 Analog M12
TAS-4xx-CDU-00*	I/O Module, IP67 Digital M12
TAS-PWR-4A	Power Supply, 230V/4A
84-2033	AS-i Cable, Black (AUX Power)– TPE jacket
84-2034	AS-i Cable, Yellow – TPE jacket

*Actual part number will depend on configuration of inputs/outputs required