AS-i Master Module

SIEMENS

- Module used as an AS-i master on an AS-i network
- One AS-i master can be used with the S7-222CPU and two with the S7-224 CPU
- Each AS-i master can have up to 31 slaves connected to it (62 when version 2.1 slaves become available)
- Slaves can be digital or analogue and are available in a wide variety of input and output types
- The AS-i master can also perform diagnostics during the CPUs program cycle to identify faults on the bus e.g. faulty slaves
- Manual contains all the information needed to install and run the modules, as well as a number of worked examples

INC259

	Mftrs. List No.	Order Code	1+	Price Each 5+	10+
AS-i master	6GK7 243-2AX00-0XA0	**329-0013**			
Manual	6GK7 243-2AX00-8BA0	**329-0025**			

Optional Cartridges

SIEMENS

- A range of optional cartridges which allow the user to upgrade the functionality of the CPU
- The EEPROM memory module is used to transfer and back-up programs and store data
- The real time clock can be added to the S7-221/222 CPUs
- The battery module retains the integrity of the RAM, typically for 200 days

INC269

	Mftrs. List No.	Order Code	1+	Price Each 5+	10+
Memory module	6ES7 291-8GE20-0XA0	**313-9890**			
Clock module	6ES7 291-1AA20-0XA0	**313-9888**			
Battery module	6ES7 291-8BA20-0XA0	**313-9876**			

S7-200 Cabling

SIEMENS

- PC/PPI cable is used for connection between a PC and the programming port on the CPU
- Cable length is 5m
- The expansion cable is used to connect between rows of modules – only one per I/O chain

INC270

	Mftrs. List No.	Order Code	1+	Price Each 5+	10+
PC/PPI cable	6ES7 901-3BF20-0XA0	**313-9967**			
Expansion cable	6ES7 290-6AA20-0XA0	**313-9864**			

S7-200 Manual

SIEMENS

- The manual provides information about installing and programming the S7-200 range
- Designed for both novice and expert users alike

INC271

Mftrs. List No.	Order Code	1+	Price Each 5+	10+
6ES7 298-8FA21-8BH0	**313-9906**			

STEP 7-Micro Software

SIEMENS

- Closer resemblance to Microsoft products
- Improved editing
- Improved wizards
- STL and LAD programming languages
- In-built PLC simulator
- **IEC1131-3** compliant
- The upgrade software enhances older versions to version 3.0 allowing them to be used with 2nd generation S7-200

INC266

Software	Mftrs. List No.	Order Code	1+	Price Each 5+	10+
CD	6ES7 810-2BC00-0YX0	**313-9920**			
Diskette	6ES7 810-2BA00-0YX0	**313-9943**			
Upgrade					
CD	6ES7 810-2BC00-0YX3	**313-9931**			
Diskette	6ES7 810-2BA00-0YX3	**313-9955**			

Simatic S7-200 Micro PLC

SIEMENS

The 2nd generation S7-200 offers small but powerful CPUs with flexible I/O that can be tailored to suit simple or complex automation tasks, giving the best optimised and lowest-cost solutions. Easy-to-use, Windows based software unlocks the powerful, in-built computing and communications features. The enhanced expansion modules allow more flexible solutions which, coupled with the upgraded software, mean changing from other solutions is easier than ever.

All models feature:
- High speed – 0.37μs per instruction
- 2 x 20kHz pulse outputs
- 1 x RS485 communications interface
- In-built power supply
- PID instructions

Specifications:
Supply voltage	85-264Vac, 47/63Hz or 20.4-28.8Vdc
Supply for sensors	24Vdc, 180mA(221 & 222 CPU) or280mA(224 CPU)
Inputs	24Vdc, 7mA opto-isolated (sink/source configurable)
Relay outputs	Volt free 2A; 5-30Vdc or 5-250Vac
Transistor outputs	24Vdc,0.75A

INC257

Telemecanique PLCs

Nano Base units

Telemecanique

The **IEC 1131** compliant Modicon TSX Nano PLC range offers versitility & flexibility at a low price. With 5 models of base unit to choose from ranging from 10 I/O through to 24I/O, and a range of accessories, the Nano PLC can be easily configured to the requirements of your small PLC application. Communication protocols include, Modbus, Unitelway, and ASCII, and up to 4 of the units can be simply networked to share a common data area via their own internal communications link. Three models of the Nano PLC have a built in analogue input (0-10V) which can be used to measure variables such as temperature, speed, level, flow, pressure etc.

Programming is performed in reversible Ladder Logic or Instruction List via PC based programming software, or Instruction List via a handheld programming terminal. The addition of a simple program loader makes transfer of programs easy when no programming devices are nearby.

- 10, 16, and 24 I/O expandable base units
- 14, and 20 I/O non expandable base units
- 10, 16, and 24 I/O non expandable base units with 1 analogue input (0-10V)
- 10, 16, and 24 I/O low cost expansion units
- Real time clock available on 14, 16, 20, and 24 I/O units
- First input can be configured as a fast counter (up to 10KHz)
- Programmable input filters on all inputs (12ms, 3ms or 100μs)
- 1000 instruction RAM and EEPROM memory
- Protect facility for PLC program (RAM and EEPROM) to restrict unauthorised access
- In built 24vdc sensor supply (150mA) on AC powered units
- ASCII or Unitelway protocols via programming port
- Modbus slave protocol via extension port
- Built in analogue timer(s)
- Relay outputs on all units
- Simple networking of up to 4 units via extension link configured via selector switch
- Removable terminal covers

INC255

	Mftrs. List No.	Order Code	1+	Price Each 5+	10+
Non-expandable					
8 In/6 Out	TSX073L1428	**321-4990**			
12 In/8 Out	TSX073L2028	**321-5131**			
Base Units, extendable, 24V					
6 In/4 Out	TSX07301022	**321-4977**			
9 In/7 Out	TSX07311622	**321-5003**			
14 In/10 Out	TSX07312422	**321-5143**			
Base Units, extendable, 110/240V					
6 In/4 Out	TSX07301028	**321-4989**			
9 In/7 Out	TSX07311628	**321-5015**			
14 In/10 Out	TSX07312428	**321-5155**			
110/240V with integerated analogue input					
6 In/4 Out	TSX07321028	**329-5722**			
9 In/7 Out	TSX07331628	**321-5027**			
14 In/10 Out	TSX07332428	**321-5167**			

Nano Expansion Units

Telemecanique

Modicon TSX Nano PLCs can either be expanded by the addition of another expandable base unit (set to expansion via a selector switch), or via the addition of specific low cost expansion units. These units are available in sizes of 16 and 24 I/O. A maximum of one expansion unit can be added to a Modicon TSX Nano PLC.

INC253

Supply	I/O	Mftrs. List No.	Order Code	1+	Price Each 5+	10+
110/240V	9 In/7 Out	TSX07EX1628	**329-5710**			
110/240V	14 In/10 Out	TSX07EX2428	**321-5179**			

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