

Schneider Series Service Manual

TSXP571634M

1. Description

The TSXP571634M is a communication module designed for Schneider Electric's TSX Micro PLCs series. This unit accommodates up to 2 communication module connections and supports multiple integrated connection types, including Ethernet TCP/IP via RJ45 and a serial link using 2 female mini-DIN RS485 interfaces.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Line TSX Micro PLCs
Part	Number TSXP571634M
EAN	3595863812558
Weight	1.00 lbs (0.45 kg)
Communication	Module Processor Capacity 2 modules
Integrated	Connection Type Ethernet TCP/IP RJ45, Serial link 2 female mini DIN RS485 19.2 kbit/s
Analogue	I/O Processor Capacity 24 I/O
Discrete	I/O Processor Capacity 512 I/O
Number	of Racks 2 (12 slots), 4 (4/6/8 slots)
Internal	RAM 96 KB data
Application	Structure 1 master task, 1 fast task, 32 event tasks
System	Overhead 0.3 ms fast task, 1 ms master task
Memory	Description Internal RAM (with PCMCIA card) 224 KB program, Internal RAM (with PCMCIA card) 96 KB data, Internal RAM (without PCMCIA card) 96 KB program and data
PCMCIA	Card 256 KB additional data storage
Execution	Time per Instruction 0.19 µs Boolean without PCMCIA card, 0.25 µs Boolean with PCMCIA card
Number	of Instructions per ms 2.1 Kinst/ms (65% Boolean + 35% fixed arithmetic with PCMCIA card), 3.71 Kinst/ms (65% Boolean + 35% fixed arithmetic)

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Technical specifications for TSXP571634M

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Current Consumption 1650 mA, 5 V DC

Module Format Standard

Description

The Schneider Electric TSXP571634M communication module is engineered to operate within the TSX Micro PLCs series. This versatile module can handle 2 modules for communication purposes, providing robust options such as Ethernet TCP/IP through RJ45 and a serial link via 2 female mini-DIN RS485, supporting a baud rate of 19.2 kbit/s. This module boasts a discrete I/O capacity of 512 and an analog I/O capacity of 24 for I/O processing. It can be utilized across multiple rack configurations, accommodating 2 racks with 12 slots and 4 racks with varying slots (4, 6, or 8).

Equipped with 96 KB of internal RAM, the module's memory can be expanded via a PCMCIA card, which offers 256 KB of data storage capacity. When using this card, the internal RAM supports a program size of 224 KB while holding 96 KB of data. Additionally, the system execution time per instruction is efficient, operating at 0.19 microseconds for Boolean instructions without a PCMCIA card and 0.25 microseconds with the card installed.

This module structure features one master task, one fast task, and up to 32 event tasks, optimizing processing capabilities while maintaining manageable system overheads of 0.3 milliseconds for fast tasks and 1 millisecond for the master task. Furthermore, the task performance can handle a maximum of 2.1 K instructions per millisecond with a PCMCIA card or 3.71 K instructions per millisecond without it.

Notably, this module's current consumption is rated at 1650 mA at 5 V DC, ensuring efficient power usage. Weighing 0.84 lbs. (0.38 kg), the compact design allows easy installation and integration into various automation systems.

Range of Product

Modicon Premium Automation platform

Product or Component Type

Unity processor

Software Designation

Unity Pro

Complementary

Number of racks

2 12 slots

4 4/6/8 slots

Number of slots

24

16

32

Discrete I/O processor capacity

512 I/O

Analogue I/O processor capacity

24 I/O

Number of application specific channel

8

Integrated connection type

Non isolated serial link 2 female mini DIN RS485)19.2 kbit/s)

Ethernet TCP/IP RJ45

Port Ethernet

10BASE-T/100BASE-TX

Communication module processor capacity

2

1

Memory description

Internal RAM (with PCMCIA card) 224 kB program

Internal RAM (with PCMCIA card) 96 kB data

Internal RAM (without PCMCIA card) 96 kB program and data

PCMCIA card 256 kB additional data storage

Maximum size of object areas

32 kB (elementary and derived data) unlocated internal data

4096 %Mi located internal bits

64 %KWi constant words located internal data

64 %MWi internal words located internal data

64 kB (DFB and EFB function blocks) unlocated internal data

Application structure

1 master task

1 fast task

32 event tasks

Execution time per instruction

0.19 µs Boolean without PCMCIA card

0.25 µs Boolean with PCMCIA card

0.25 µs word or fixed-point arithmetic without PCMCIA card

0.5 µs word or fixed-point arithmetic with PCMCIA card

1.75...2.6 µs floating points with PCMCIA card

1.75...2.6 µs floating points without PCMCIA card

Number of instructions per ms

2.1 Kinst/ms 65 % Boolean + 35 % fixed arithmetic with PCMCIA card

3.1 Kinst/ms 100 % Boolean with PCMCIA card

3.71 Kinst/ms 65 % Boolean + 35 % fixed arithmetic without PCMCIA card

4.76 Kinst/ms 100 % Boolean without PCMCIA card

System overhead

0.3 ms fast task

1 ms master task

Marking

CE

Local signalling

1 LED (green) for Ethernet TCP/IP port ready (RUN)

1 LED (green) for processor running (RUN)

1 LED (red) for collision detection (COL)

1 LED (red) for Ethernet TCP/IP port fault (ERR)

1 LED (red) for I/O module or configuration fault (I/O)

1 LED (red) for processor or system fault (ERR)

1 LED (yellow) for activity on TER or AUX terminal port (TER)

1 LED (yellow) for Ethernet link diagnostics (STS)

1 LED (yellow) for reception activity (RX)

1 LED (yellow) for transmission activity (TX)

Current consumption

1650 mA 5 V DC

Module format

Double

Net Weight

1.63 lb(US) (0.74 kg)

Environment

Standards

89/336/EEC

CSA C22.2 No 213 Class I Division 2 Group A

UL 508

CSA C22.2 No 213 Class I Division 2 Group D

73/23/EEC

CSA C22.2 No 213 Class I Division 2 Group C

IEC 61131-2

93/68/EEC

92/31/EEC

CSA C22.2 No 213 Class I Division 2 Group B

CSA C22.2 No 142

Product Certifications

GL

RMRS

LR

ABS

DNV

RINA

BV

Ambient Air Temperature for Operation

32...140 °F (0...60 °C)

Ambient Air Temperature for Storage

-13...158 °F (-25...70 °C)

Relative Humidity

10...95 % without condensation for operation

5...95 % without condensation for storage

Operating altitude

0...6561.68 ft (0...2000 m)

Protective treatment

TC

IP Degree of Protection

IP20

Pollution degree

2

Ordering and shipping details

Category

US1PC2222558

Discount Schedule

PC22

GTIN

3595863812558

Returnability

No