

Schneider Series Service Manual

TSXP574634M

1. Description

The TSXP574634M from Schneider Electric is part of the TSX Micro PLCs series and incorporates advanced features for effective control and automation. This model supports a maximum of eight racks, each with twelve slots, or up to sixteen racks with configurations of four, six, or eight slots, enhancing modularity and scalability.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Line TSX Micro PLCs
Part	Number TSXP574634M
EAN	3595863811681
Weight	1.00 lbs (0.45 kg)
Number	of Racks 8 racks with 12 slots each, 16 racks with 4/6/8 slots each
Protective	Treatment TC
Compliance	CE Marking
Module	Format Double
Current	Consumption 1880 mA at 5 V DC
Local	Signalling 1 LED (green) for processor running (RUN), 1 LED (red) for processor or system fault (ERR), 1 LED (red) for I/O module or configuration fault (I/O)
System	Overhead Fast task: 0.08 ms, Master task: 1 ms
Boolean	Execution Time 0.039-0.057 µs (without PCMCIA card), 0.048-0.057 µs (with PCMCIA card)
Floating	Points Execution Time 0.55...0.63 µs (with or without PCMCIA card)
Internal	RAM (with PCMCIA card) 2048 kB program, 440 kB data
Internal	RAM (without PCMCIA card) 440 kB program and data
Communication	Options Ethernet TCP/IP RJ45, USB port (12 Mbit/s), Serial link female mini-DIN RS485 (19.2 kbit/s)
Analog	I/O Capacity Up to 256 I/O points
Discrete	I/O Capacity Up to

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Technical specifications for TSXP574634M

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Communication Options Ethernet TCP/IP RJ45, USB port (12 Mbit/s), Serial link female mini-DIN RS485 (19.2 kbit/s)

Analog I/O Capacity Up to 256 I/O points

Discrete I/O Capacity Up to 2040 I/O points

PCMCIA Card 16384 kB additional data storage

Description

The Schneider Electric TSXP574634M is an advanced PLC module within the TSX Micro PLCs lineup. It demonstrates adaptability with its capacity for either eight racks with twelve slots each or sixteen racks featuring configurations of four, six, or eight slots. This flexibility makes it suitable for applications requiring extensive control and automation solutions. This model consumes 1880 mA at a 5 V DC input. Three LEDs provide local indication of the device's operational status: a green RUN LED for normal operations, a red ERR LED indicating processor or system faults, and another red I/O LED for module or configuration errors, ensuring users have instant feedback on system health.

Regarding processing speed, the TSXP574634M exhibits a fast task overhead of merely 0.08 ms and a master task time of 1 ms. Its execution for boolean operations runs between 0.039 to 0.057 microseconds without a PCMCIA card, while floating-point operations have a timeframe of 0.55 to 0.63 microseconds, showcasing impressive performance.

The internal RAM varies based on usage; with a PCMCIA card, users get 2048 kB for programs and 440 kB for data storage. Conversely, without a PCMCIA card, the memory is reduced to 440 kB for both program and data. Furthermore, this model supports multiple communication options, including Ethernet TCP/IP via RJ45, a USB port operating at 12 Mbit/s, and a serial connection through a mini-DIN RS485 link, enhancing connectivity with various devices.

With an expanded analog capacity of up to 256 points and a discrete I/O capacity reaching up to 2040 points, the TSXP574634M is adept at managing complex control system demands. Including a PCMCIA card increases data storage by 16 MB, providing further versatility in data management.

Range of Product

Modicon Premium Automation platform

Product or Component Type

Unity processor

Software Designation

Unity Pro

Complementary

Concept

Transparent Ready

Number of racks

16 4/6/8 slots

8 12 slots

Number of slots

128

64

96

Discrete I/O processor capacity

2040 I/O

Analogue I/O processor capacity

256 I/O

Number of application specific channel

64

Number of process control channel

20 up to 60 simple loops

Integrated connection type

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

Ethernet TCP/IP RJ45

USB port12 Mbit/s)

Port Ethernet

10BASE-T/100BASE-TX

Communication module processor capacity

4

1

3

8

Memory description

Internal RAM (with PCMCIA card) 2048 kB program

Internal RAM (with PCMCIA card) 440 kB data

Internal RAM (without PCMCIA card) 440 kB program and data

PCMCIA card 16384 kB additional data storage

Maximum size of object areas

32768 %Mi located internal bits

64 %KWi constant words located internal data

64 %MWi internal words located internal data

Unlimited (DFB and EFB function blocks) unlocated internal data

Unlimited (elementary and derived data) unlocated internal data

Application structure

1 fast task

64 event tasks

1 master task

Execution time per instruction

0.039...0.057 µs Boolean without PCMCIA card

0.048...0.057 µs Boolean with PCMCIA card

0.054...0.073 µs word or fixed-point arithmetic with PCMCIA card

0.054...0.073 µs word or fixed-point arithmetic without PCMCIA card

0.55...0.63 µs floating points with PCMCIA card

0.55...0.63 µs floating points without PCMCIA card

Number of instructions per ms

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

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

15.75 Kinst/ms 100 % Boolean with PCMCIA card

15.75 Kinst/ms 100 % Boolean without PCMCIA card

System overhead

0.08 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

1880 mA 5 V DC

Module format

Double

Net Weight

1.34 lb(US) (0.61 kg)

Environment

Standards

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

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

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

73/23/EEC

IEC 61131-2

CSA C22.2 No 142

89/336/EEC

93/68/EEC

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

92/31/EEC

UL 508

Product Certifications

BV

RMRS

ABS

RINA

LR

DNV

GL

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

3595863811681

Returnability

No