

Schneider Series Service Manual

TSXP572634M

1. Description

The TSXP572634M from Schneider Electric's TSX Micro PLCs series is tailored for sophisticated control tasks. It is equipped to manage both analog and discrete I/O with a capacity of up to 80 analog inputs and outputs and 1024 discrete I/O points, enabling a wide range of automation solutions.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Line TSX Micro PLCs
Part	Number TSXP572634M
EAN	3595863761542
Weight	1.00 lbs (0.45 kg)
Analogue	I/O Processor Capacity 80 I/O
Integrated	Connection Type Non-isolated serial link (2 female mini DIN, 19.2 kbit/s) and Ethernet TCP/IP (RJ45, 10/100 Mbit/s)
PCMCIA	Slots 2 slots for memory extension card and either a communication card or a 4 Mb SRAM memory extension card
Communication	Module Processor Capacity 1 fieldbus module (none if CANopen is utilized), 4 AS-Interface bus modules, 1 CANopen
Execution	Time per Instruction 0.19 µs for Boolean operations without a PCMCIA card, 0.21 µs with a PCMCIA card
Application	Structure 1 master task, 1 fast task, 64 event tasks
Max.	Size of Object Areas 30.5% MWi internal words for internal data, 32% KWi constant words for internal data, 8132% of Mi for internal bits
Display	Block Features 5 LEDs on the front panel
Number	of Process Control Channels 10 up to 30 simple loops
RESET	Button Triggers a cold start

3. Product Information

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Technical specifications for TSXP572634M

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Execution Time per Instruction 0.19 µs for Boolean operations without a PCMCIA card, 0.21 µs with a PCMCIA card

Application Structure 1 master task, 1 fast task, 64 event tasks

Max. Size of Object Areas 30.5% MWi internal words for internal data, 32% KWi constant words for internal data, 8132% of Mi for internal bits

Display Block Features 5 LEDs on the front panel

Number of Process Control Channels 10 up to 30 simple loops

RESET Button Triggers a cold start of the PLC when pressed

Memory Description Internal RAM (with PCMCIA card) 48 Kwords for data, Internal RAM (without PCMCIA card) 48 Kwords for program and data, PCMCIA card with 160 Kwords for program, PCMCIA card with 2688 Kwords for additional data storage

Internal RAM 48Kwords for program and data

Number of Racks Supports up to 16 racks

Discrete I/O Processor Capacity 1024 I/O

Number of Application-Specific Channels 24

Description

The Schneider Electric TSXP572634M is part of the TSX Micro PLCs line, designed for flexibility and efficiency in automation processes. The unit features an analog I/O processor capable of handling 80 I/O channels alongside a discrete I/O processor with a 1024 I/O capacity. It supports various connection types, including a non-isolated serial link with dual female mini-DIN connectors operating at 19.2 kbit/s and Ethernet TCP/IP via RJ45, facilitating seamless communication within industrial networks.

For memory expansion, the TSXP572634M includes two PCMCIA slots, one designated for a memory extension card and the other for a communication card or an optional 4 Mb SRAM card. The communication module can accommodate one fieldbus module—though if using CANopen, this module is not applicable, as well as four AS-Interface bus modules and one CANopen interface.

Regarding processing speed, the execution time for instructions is quick, registered at 0.19 µs for Boolean operations without a PCMCIA card and 0.21 µs with one installed. The application structure is adaptable, featuring one master task, one fast task, and a configuration that supports 64 event tasks.

The controller's RAM configuration allows 48 Kwords of memory for both program and data (without PCMCIA). At the same time, with a PCMCIA card, the capacity extends to 48 Kwords for data and a program size of 160 Kwords. Additionally, the controller can support up to 16 racks and includes a RESET button that triggers a cold start when engaged. Status monitoring is easily handled with a display block containing five LEDs on the front panel, enhancing the operator's ability to manage system performance. The TSXP572634M is designed to provide efficient and reliable control for various applications.

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

96

64

Discrete I/O processor capacity

1024 I/O

Analogue I/O processor capacity

80 I/O

Number of application specific channel

24

Number of process control channel

10 up to 30 simple loops

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

4

1

Memory description

Internal RAM (with PCMCIA card) 160 kB data

Internal RAM (with PCMCIA card) 768 kB program

Internal RAM (without PCMCIA card) 160 kB program and data

PCMCIA card 16384 kB additional data storage

Maximum size of object areas

64 %KWi constant words located internal data

64 %MWi internal words located internal data

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

64 kB (elementary and derived data) unlocated internal data

8132 %Mi located internal bits

Application structure

64 event tasks

1 master task

1 fast task

Execution time per instruction

0.19 µs Boolean without PCMCIA card

0.25 µs word or fixed-point arithmetic without PCMCIA card

1.75...2.6 µs floating points with PCMCIA card

1.75...2.6 µs floating points without PCMCIA card

0.21 µs Boolean with PCMCIA card

0.42 µs word or fixed-point arithmetic with PCMCIA card

Number of instructions per ms

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

3.7 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

0.093 lb(US) (0.042 kg)

Environment

Standards

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

IEC 61131-2

93/68/EEC

89/336/EEC

UL 508

92/31/EEC

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

CSA C22.2 No 142

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

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

73/23/EEC

Product Certifications

LR

BV

RMRS

GL

RINA

DNV

ABS

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