

Schneider Series Service Manual

TSXP572623M

1. Description

The TSXP572623M from Schneider Electric is part of the TSX Micro PLC series. It can handle up to 30 simple process control loops and offers robust functionality for a variety of automation tasks.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Line TSX Micro PLCs
Part	Number TSXP572623M
EAN	3595862058469
Weight	3.00 lbs (1.36 kg)
Number	of Process Control Channels 10 up to 30 simple loops
RESET	Button Initiates a cold start of the PLC when pressed
Memory	Description Internal RAM specifications: 48 Kwords data (with PCMCIA card), 48 Kwords program and data (without PCMCIA card); PCMCIA card allows for 160 Kwords program and 2688 Kwords data storage
Internal	RAM 48 Kwords for program and data
Number	of Racks Supports up to 16 racks
Discrete	I/O Processor Capacity 1024 I/O
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 (one for memory extension card and another for communication card or 4 MB SRAM memory extension card)
Communication	Module Processor Capacity 1 fieldbus module (none if CANopen is used), 4 AS-Interface bus modules, 1 CANopen
Execution	T

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Technical specifications for TSXP572623M

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PCMCIA Slots 2 slots (one for memory extension card and another for communication card or 4 MB SRAM memory extension card)

Communication Module Processor Capacity 1 fieldbus module (none if CANopen is used), 4 AS-Interface bus modules, 1 CANopen

Execution Time per Instruction 0.19 μ s for Boolean without PCMCIA card, 0.21 μ s for Boolean with PCMCIA card

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

Maximum Size of Object Areas 30.5% MWi internal words located in internal data, 32% KWi constant words located in internal data, 8132% Mi located in internal bits

Display Block Comprises 5 LEDs on the front panel

Description

Schneider Electric's TSXP572623M is a compact yet powerful micro PLC belonging to the TSX series. It supports a wide range of process control applications and can manage up to 30 simple loops. This device includes a RESET button that, when activated, causes the PLC to cold start, ensuring a fresh start when needed.

The internal memory architecture comprises 48 Kwords allocated for program and data storage. If a PCMCIA card is utilized, the memory capacity can expand to accommodate 160 Kwords for program storage and 2688 Kwords for data. The PLC supports up to 16 racks, making it suitable for scalable automation systems. Discrete I/O processing is substantial, with a capacity to manage 1024 I/O points and 80 points for analog I/O processing.

Communication capabilities are extensive, featuring a non-isolated serial link (with 2 female mini-DIN connectors at a rate of 19.2 kbit/s) and Ethernet TCP/IP support (using an RJ45 connector at 10/100 Mbit/s). The device offers two PCMCIA slots—one designated for memory expansion and another for either a communication card or a 4 MB SRAM memory extension card.

For field communication, the TSXP572623M supports one fieldbus module (except when CANopen is implemented), and it can connect with up to 4 AS-Interface bus modules and 1 CANopen module for versatile networking options. The execution time is efficient, with 0.19 μ s per instruction for Boolean logic without the PCMCIA card and 0.21 μ s when this card is present.

In terms of operational structure, the PLC consists of 1 master task, 1 fast task, and up to 64 event-driven tasks, facilitating complex automation scenarios. Object area sizes may reach up to 30.5% for MWi internal words, 32% for KWi constant words, and 8132% for internal bits. Additionally, the front panel of this PLC is equipped with a display block featuring 5 LEDs, providing clear operational status indicators.

Range of Product

Modicon Premium Automation platform

Product or Component Type

Double-format PL7 processor

Software Designation

PL7 Junior/Pro

Complementary

Concept

Transparent Ready

Number of racks

16 4/6/8 slots

8 12 slots

Number of slots

64

96

128

Discrete I/O processor capacity

1024 I/O

Analogue I/O processor capacity

80 I/O

Number of application specific channel

Number of process control channel

10 up to 30 simple loops

Integrated connection type

Non isolated serial link 2 female mini DIN19.2 kbit/s)

Ethernet TCP/IP RJ4510/100 Mbit/s)

Communication module processor capacity

1 fieldbus module (none if CANopen used)

4 AS-Interface bus modules

1 CANopen

Memory description

Internal RAM (with PCMCIA card) 48 Kwords data

Internal RAM (without PCMCIA card) 48 Kwords program and data

PCMCIA card 160 Kwords program

PCMCIA card 2688 Kwords additional data storage

Maximum size of object areas

30.5 %MWi internal words located internal data

32 %KWi constant words located internal data

8132 %Mi located internal bits

Application structure

1 master task

1 fast task

64 event tasks

Execution time per instruction

0.19 μ s Boolean without PCMCIA card

0.21 μ s Boolean with PCMCIA card

0.25 μ s word or fixed-point arithmetic without PCMCIA card

0.42 μ s word or fixed-point arithmetic with PCMCIA card

2.6 μ s floating points with PCMCIA card

2.6 μ s floating points without PCMCIA card

Number of instructions per ms

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

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

3.7 Kinst/ms 100 % Boolean with PCMCIA card

4.76 Kinst/ms 100 % Boolean without PCMCIA card

System overhead

0.35 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 the 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

1110 mA 5 V DC

Module format

Double

Net Weight

1.68 lb(US) (0.76 kg)

Environment

Standards

CSA C22.2 No 142

IEC 61131-2

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

73/23/EEC

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

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

93/68/EEC

92/31/EEC

UL 508

89/336/EEC

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

Product Certifications

BV

DNV

RMRS

ABS

GL

LR

RINA

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

22558-TSX PREMIUM, ATRIUM & PL7 PRO

Discount Schedule

PC22

GTIN

3595862058469

Returnability

No

Country of origin

FR

Packing Units

Unit Type of Package 1

PCE

Nbr. of units in pkg.

1

Package 1 Height

3.7 in (9.5 cm)

Package 1 Width

7.09 in (18.0 cm)

Package 1 Length

10.2 in (26.0 cm)

Package weight(Lbs)

26.8 oz (759.0 g)