

Schneider Series Service Manual

TSXH5724M

1. Description

The TSXH5724M from Schneider Electric represents a highly capable micro PLC from the TSX Micro PLCs series. Designed for various automation tasks, it supports significant I/O capacities and multiple integrated connection options.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Line TSX Micro PLCs
Part	Number TSXH5724M
EAN	3595863921243
Weight	1.00 lbs (0.45 kg)
Number	of Racks 1 (6/8/12 slots)
Discrete	I/O Processor Capacity 1024 I/O
Analog	I/O Processor Capacity 80 I/O
Number	of Application-Specific Channels $\leq$ 24
Number	of Process Control Channels $\leq$ 10 (up to 30 simple loops)
Integrated	Connection Types Ethernet TCP/IP RJ45, USB port (USB type A 12 Mbit/s), Serial link (female mini DIN RS485 19.2 kbit/s)
Memory	Description PCMCIA card (16384 kB additional data storage), Internal RAM (with PCMCIA card: 768 kB program, 192 kB data; without PCMCIA card: 192 kB program and data)
Execution	Time per Instruction 0.039-0.057 μ s Boolean (without PCMCIA card), 0.048-0.057 μ s Boolean (with PCMCIA card), 0.054-0.073 μ s word or fixed-point arithmetic (with PCMCIA card), 0.054-0.073 μ s word or fixed-point arithmetic (without PCMCIA card), 0.055-0.063 μ s floating points (with PCMCIA card), 0.055-0.063 μ s floating points (without PCM

3. Product Information

www.sparetechplc.com

The TSXH5724M from Schneider Electric represents a highly capable micro PLC from the TSX Micro PLCs series. Designed for various automation tasks, it supports significant I/O capacities and multiple integrated connection options.

Technical specifications for TSXH5724M

Manufacturer Schneider Electric

Product Line TSX Micro PLCs

Part Number TSXH5724M

EAN 3595863921243

Weight 1.00 lbs (0.45 kg)

Number of Racks 1 (6/8/12 slots)

Discrete I/O Processor Capacity 1024 I/O

Analog I/O Processor Capacity 80 I/O

Number of Application-Specific Channels ≤ 24

Number of Process Control Channels ≤ 10 (up to 30 simple loops)

Integrated Connection Types Ethernet TCP/IP RJ45, USB port (USB type A 12 Mbit/s), Serial link (female mini DIN RS485 19.2 kbit/s)

Memory Description PCMCIA card (16384 kB additional data storage), Internal RAM (with PCMCIA card: 768 kB program, 192 kB data; without PCMCIA card: 192 kB program and data)

Execution Time per Instruction 0.039-0.057 μ s Boolean (without PCMCIA card), 0.048-0.057 μ s Boolean (with PCMCIA card), 0.054-0.073 μ s word or fixed-point arithmetic (with PCMCIA card), 0.054-0.073 μ s word or fixed-point arithmetic (without PCMCIA card), 0.055-0.063 μ s floating points (with PCMCIA card), 0.055-0.063 μ s floating points (without PCMCIA card)

Number of Instructions per ms 11.4 Kinst/ms (65% Boolean + 35% fixed arithmetic without PCMCIA card), 11.4 Kinst/ms (65% Boolean + 35% fixed arithmetic with PCMCIA card), 15.75 Kinst/ms (100% Boolean without PCMCIA card), 15.75 Kinst/ms (100% Boolean with PCMCIA card)

System Overhead 1 ms master task

Marking CE

Port Ethernet 10BASE-T/100BASE-TX

Max. Size of Object Areas 192 kB data exchanged via CPU Sync link

Protective Treatment TC

Range of Product

Modicon Premium Automation platform

Product or Component Type

Unity Hot Standby processor

Software Designation

Unity Pro

Complementary

Number of racks

1 6/8/12 slots

Number of slots

6

8

12

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 female mini DIN RS485)19.2 kbit/s)

Ethernet TCP/IP RJ45

USB port USB type A12 Mbit/s)

Port Ethernet

10BASE-T/100BASE-TX

Communication module processor capacity

2

Memory description

Internal RAM (with PCMCIA card) 192 kB data

Internal RAM (with PCMCIA card) 768 kB program

Internal RAM (without PCMCIA card) 192 kB program and data

PCMCIA card 16384 kB additional data storage

Maximum size of object areas

www.sparetechplc.com

192 kB data exchanged via CPU Sync link

32464 %MWi internal words located internal data

32760 %KWi constant words located internal data

8056 %Mi located internal bits

Unlimited (DFB and EFB function blocks) unlocated internal data

Unlimited (elementary and derived data) unlocated internal data

Application structure

1 master task

Execution time per instruction

0.039...0.057 μ s Boolean without PCMCIA card

0.048...0.057 μ s Boolean with PCMCIA card

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

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

0.055...0.063 μ s floating points with PCMCIA card

0.055...0.063 μ s 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

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

1.23 lb(US) (0.56 kg)

Environment

Standards

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

92/31/EEC

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

UL 508

89/336/EEC

93/68/EEC

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

CSA C22.2 No 142

73/23/EEC

IEC 61131-2

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

Product Certifications

RINA

ABS

LR

RMRS

www.sparetechplc.com

DNV
GL
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
22558-TSX PREMIUM, ATRIUM & PL7 PRO
Discount Schedule
PC22
GTIN
3595863921243
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)
2.38 lb(US) (1.08 kg)
Description

www.sparetechplc.com

The Schneider Electric TSXH5724M is a powerful micro PLC that meets diverse industrial automation needs. This compact controller supports a single rack configuration that holds between 6 and 12 slots, accommodating varied setup requirements. With a discrete I/O processing limit of 1024 I/O and an additional capacity for 80 analog I/O points, the TSXH5724M facilitates substantial input and output capabilities.

Regarding functional versatility, the unit houses up to 24 application-specific channels and provides up to 10 process control channels to manage as many as 30 straightforward loops. Communication is streamlined via integrated connection types, including Ethernet TCP/IP (RJ45), a USB port for fast data exchange, and a serial link (female mini-DIN RS485) supporting 19.2 kbit/s.

Memory management is further enhanced with a PCMCIA card that allows for an additional 16384 kB of data storage. When a PCMCIA card is installed, internal RAM runs at 768 kB for programs and 192 kB for data. Without a PCMCIA card, the RAM limits include 192 kB split equally between programs and data.

Performance-wise, the execution times for various instruction types range from 0.039 µs to 0.073 µs, depending on whether a PCMCIA card is present. The controller can handle 11.4 Kinst/ms for combined Boolean and fixed arithmetic operations or 15.75 Kinst/ms for pure Boolean operations. The system overhead is maintained at a master task duration of 1 millisecond.

CE certification markings indicate compliance with applicable standards, and the controller supports Ethernet connection options at 10BASE-T/100BASE-TX speeds. For object area exchanges, a maximum size of 192 kB is specified via the CPU Sync link, while the device has a protective treatment classified as TC.