

Schneider Series Service Manual

TSXCSY84

1. Description

The TSXCSY84 from Schneider Electric is a multi-axis control module within the Modicon Premium Automation platform. This device features an industrial structure type that complies with EN 61491 and supports advanced control for various applications.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type Multi-axis control module
Product	Line TSX Micro PLCs
Part	Number TSXCSY84
EAN	3595860287137
Weight	0.56 lbs (0.26 kg)
Structure	Type Industrial, conforming to EN 61491
Set	of Axes 4 coordinated, 4 followers
Cam	Profile 7
Topology	Ring
Transmission	Support Medium Fiber optic cable
Transmission	Rate 4 Mbit/s
Cycle	Time 2 ms for 2 axes, 2 ms for 4 axes, 4 ms for 8 axes
Power	Dissipation 9 W
Current	Consumption 1800 mA at 5 V DC
Range	of Product Modicon Premium Automation platform
Number	of Channels 32
Number	of Axes 4 imaginary, 4 remote, 8 real
Path	Function Following of auxiliary axes, simple linear path
Communication	Network Type SERCOS 2
Range	of Product
Modicon	Premium Automation platform
Product	or Component Type
Multi	axis control module
Product	Specific Application
SERCOS	digital servo drives
Number	of Channels
32	
Number	of axis
4	imaginary
4	remote
8	real
Path	function
Following	of auxiliary axes
Simple	linear path
Communication	Netwo

3. Product Information

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Technical specifications for TSXCSY84

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Communication Network Type SERCOS 2

Range of Product

Modicon Premium Automation platform

Product or Component Type

Multi axis control module

Product Specific Application

SERCOS digital servo drives

Number of Channels

32

Number of axis

4 imaginary

4 remote

8 real

Path function

Following of auxiliary axes

Simple linear path

Communication Network Type

SERCOS 2

Structure type

Industrial EN 61491

Complementary

Set of axes

4 followers

4 coordinated

Cam profile

7

Topology

Ring

Transmission support medium

Fiber optic cable

Transmission Rate

4 Mbit/s

Cycle time

2 ms 2

2 ms 4

4 ms 8

maximum number of segment of SERCOS network

Maximum optic fiber length

492.1 ft (150 m) glass

124.7 ft (38 m) plastic

Maximum length of segment

328.08 ft (100 m) bus X

Power dissipation in W

9 W

Local signalling

1 LED (green) for module operating (RUN)

1 LED (red) for external fault (I/O)

1 LED (red) for internal fault, module failure (ERR)

1 LED (yellow) for flashing indicates data transmission and reception (SER)

1 LED (yellow) for flashing module reinitializing (INI)

24 LEDs (green) for channel diagnostic

Current consumption

1800 mA 5 V DC

Net Weight

1.15 lb(US) (0.52 kg)

Environment

Standards

EN/IEC 61491

IP Degree of Protection

IP20

Ambient Air Temperature for Operation

32...140 °F (0...60 °C)

Relative Humidity

10...95 % without condensation

Ordering and shipping details

Category

US1PC2222558

Discount Schedule

PC22

GTIN

3595860287137

Returnability

No

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)

25.6 oz (726.0 g)

Description

The Schneider Electric TSXCSY84 is a multi-axis control module designed for industrial applications within the TSX Micro PLCs series. Adhering to the EN 61491 standard ensures high reliability in demanding environments. The system supports eight axes, comprising four real axes, four imaginary axes, and four follower axes, enabling coordinated control over multiple movements.

This control module is equipped with a cam profile of 7 that further enhances operational flexibility. Data transmission is facilitated via fiber optic cables, ensuring rapid communication with a transmission rate of 4 Mbit/s. Cycle times are optimized for performance: 2 milliseconds for configurations involving 2 or 4 axes, increasing to 4 milliseconds when managing 8 axes.

In terms of electrical specifications, the power dissipation is rated at 9 W, and it has a current consumption of 1800 mA at 5 V DC. The system's topology is designed in a ring configuration, while the communication network operates on the SERCOS 2 protocol. The module's design also includes a simple linear path function, allowing for efficient tracking of

auxiliary axes. The TSXCSY84 is a robust solution for complex automation tasks, seamlessly integrating into sophisticated control environments.