Schneider □□□ Series Service Manual

TSXDSY08R5A

1. Description

The TSXDSY08R5A unit from Schneider Electric belongs to the TSX Micro PLCs family and functions as a discrete output module. It offers eight relay-protected outputs capable of handling various voltage configurations, supporting AC and DC applications.

2. Specifications

Specification	Value
Manufacturer	**Schneider Electric**
Product	**Type Discrete Output Module**
Product	**Line TSX Micro PLCs**
Part	**Number TSXDSY08R5A**
EAN	**3389110725810**
Weight	**1.00 lbs (0.45 kg)**
Contacts	**Type and Composition 2 x 2 C/O + 2 x 2 NO**
Discrete	**Output Number 8**
Discrete	**Output Type Relay Protected**
Discrete	**Output Voltage 24...48 V DC conforming to EN/IEC 61131-2, 19...60 V, 24...240 V AC conforming to EN/IEC 61131-2, 20...264 V**
Output	**Overvoltage Protection RC Circuit and Ge-Mov**
Output	**Overload Protection 6.3 A, Interchangeable Fuse Per Common Fast Blow**
Short-circuit	**Protection 6.3 A, Interchangeable Fuse Per Common Fast Blow**
Isolation	**Resistance > 10 MΩ at 500 V**
Electrical	**Connection Screw Terminal Block**
Current	**Consumption 80 mA at 24 V DC Rack, 55 mA at 5 V DC**
Power	**Dissipation 0.25 W + 0.24 W x Number of Outputs at State 1**
Response	**Time < 15 ms Deactivation, < 10 ms Activation**
Electrical	**Durability 1,000,000 cycles DC-12 24 W 24 V Resistive, 1,000,000 cycles DC-12 50 W 48 V Resistive, 1,000,000 cycles D**

3. Product Information

The TSXDSY08R5A unit from Schneider Electric belongs to the TSX Micro PLCs family and functions as a discrete output module. It offers eight relay-protected outputs capable of handling various voltage configurations, supporting AC and DC applications.

Technical specifications for TSXDSY08R5A

Manufacturer Schneider Electric

Product Type Discrete Output Module

Product Line TSX Micro PLCs

Part Number TSXDSY08R5A

EAN 3389110725810

Weight 1.00 lbs (0.45 kg)

Contacts Type and Composition 2 x 2 C/O + 2 x 2 NO

Discrete Output Number 8

Discrete Output Type Relay Protected

Discrete Output Voltage 24...48 V DC conforming to EN/IEC 61131-2, 19...60 V, 24...240 V AC conforming to EN/IEC 61131-2, 20...264 V

Output Overvoltage Protection RC Circuit and Ge-Mov

Output Overload Protection 6.3 A, Interchangeable Fuse Per Common Fast Blow

Short-circuit Protection 6.3 A, Interchangeable Fuse Per Common Fast Blow

Isolation Resistance > 10 MΩ at 500 V

Electrical Connection Screw Terminal Block

Current Consumption 80 mA at 24 V DC Rack, 55 mA at 5 V DC

Power Dissipation 0.25 W + 0.24 W x Number of Outputs at State 1

Response Time < 15 ms Deactivation, < 10 ms Activation

Electrical Durability 1,000,000 cycles DC-12 24 W 24 V Resistive, 1,000,000 cycles DC-12 50 W 48 V Resistive, 1,000,000 cycles DC-3 24 W 24 V Inductive, 1,000,000 cycles DC-3 50 W 48 V Inductive

Conventional Free Air Thermal Current 5 A

Description

The TSXDSY08R5A discrete output module from Schneider Electric is engineered to support various control system applications. This module comes with eight discrete outputs utilizing relay protection. The outputs can manage voltages between 24 and 48 V DC and 24 and 240 V AC. Each output is safeguarded with a relay for added protection. Output overvoltage protection is provided through an RC circuit and a Ge-Mov component to sustain stability.

Safety measures include output overload and short-circuit protection, employing a fast-blow interchangeable fuse rated at 6.3 A. With an isolation resistance of over 10 MΩ at 500 V, the TSXDSY08R5A ensures reliable installation performance. Power dissipation is minimal, calculated at 0.25 W plus an additional 0.24 W multiplied by the number of outputs activated.

This module features a current consumption of 80 mA when connected to a 24 V DC rack and 55 mA at 5 V DC, optimizing energy efficiency during operation. Connection setups are simplified thanks to the screw terminal block design, allowing secure wire attachments.

The response time for the outputs is swift, with activation occurring in less than 10 ms and deactivation in under 15 ms. It boasts impressive electrical durability, rated for 1,000,000 cycles across various operational setups, including resistive and inductive loads. The conventional free air thermal current is rated at 5 A, supporting various industrial applications.

Range of Product

Modicon Premium Automation platform

Product or Component Type

Discrete output module

Discrete output number

8

Discrete output type

Relay protected

Discrete output voltage

24...240 V AC EN/IEC 61131-2 20...264 V

24...48 V DC EN/IEC 61131-2 19...60 V

Complementary

[Ith] conventional free air thermal current

5 A

Response time

< 10 ms (activation)

< 15 ms (deactivation)

Contacts type and composition

2 x 2 C/O + 2 x 2 NO

Output overvoltage protection

RC circuit and Ge-Mov

Output overload protection

6.3 A, interchangeable fuse per common fast blow

Short-circuit protection

6.3 A, interchangeable fuse per common fast blow

isalotion resistance

> 10 MOhm 500 V

Power dissipation

(0.25 W + 0.24 W x No of outputs at state 1)

Electrical durability

1000000 cycles DC-12 24 W 24 V resistive

1000000 cycles DC-12 50 W 48 V resistive

1000000 cycles DC-3 24 W 24 V inductive

1000000 cycles DC-3 50 W 48 V inductive

2000000 cycles DC-3 10 W 24 V inductive

2000000 cycles DC-3 24 W 48 V inductive

300000 cycles DC-12 100 W 48 V resistive

300000 cycles DC-12 50 W 24 V resistive

100000 cycles AC-14 440 VA 220...240 V inductive

100000 cycles AC-15 440 VA 220...240 V inductive

1000000 cycles AC-12 100 VA 48 V resistive

1000000 cycles AC-12 220 VA 100...120 V resistive

1000000 cycles AC-12 440 VA 220...240 V resistive

1000000 cycles AC-14 220 VA 220...240 V inductive

1000000 cycles AC-15 220 VA 220...240 V inductive

10000000 cycles AC-14 20 VA 100...120 V inductive

10000000 cycles AC-15 20 VA 100...120 V inductive

10000000 cycles AC-15 20 VA 220...240 V inductive

150000 cycles AC-14 220 VA 100...120 V inductive

150000 cycles AC-15 220 VA 100...120 V inductive

1500000 cycles AC-14 110 VA 100...120 V inductive

1500000 cycles AC-15 110 VA 100...120 V inductive

2000000 cycles AC-14 50 VA 48 V inductive

2000000 cycles AC-15 50 VA 48 V inductive

3000000 cycles AC-14 110 VA 220...240 V inductive

3000000 cycles AC-15 110 VA 220...240 V inductive

500000 cycles AC-12 200 VA 48 V resistive

500000 cycles AC-12 440 VA 100...120 V resistive

500000 cycles AC-14 50 VA 24 V inductive

500000 cycles AC-15 50 VA 24 V inductive

5000000 cycles AC-14 20 VA 48 V inductive

5000000 cycles AC-15 20 VA 48 V inductive

700000 cycles AC-12 100 VA 24 V resistive

Marking

CE

Electrical connection

Screw terminal block

Current consumption

55 mA 5 V DC

80 mA 24 V DC rack

Module format

Standard

Net Weight

0.93 lb(US) (0.42 kg)

Environment

Dielectric strength

2000 V 50/60 Hz 60 s

Standards

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

73/23/EEC

93/68/EEC

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

92/31/EEC

89/336/EEC

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

CSA C22.2 No 142

IEC 61131-2

UL 508

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

Product Certifications

DNV

LR

ABS

BV

RMRS

GL

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

US1PC2222558

Discount Schedule

PC22

GTIN

3389110725810

Returnability

No