

3504E

64-Point 24/48 VDC Digital Input Module

CONTROLLED ENGINEERING COPY

Select 24 or 48 V operation in the approved TriStation configuration, match the corresponding termination panel, and prove threshold, channel voting, and stuck-state diagnostics.

INSTALLATION IDENTITY	REQUIRED VALUE
Complete model	3504E
Manufacturer part	3504E
Hardware type	TMR digital input
System family	Tricon high-density digital input



APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com



01 PRE-INSTALLATION PLAN

- 1

Verify 3504E and the configured 24 or 48 V execution before module handling.
- 2

Place affected safety functions in the approved maintenance condition.
- 3

Isolate the field supply and record all sixty-four channel assignments.
- 4

Match the external termination panel to the configured field voltage.
- 5

Use ESD controls and confirm the module keying before insertion.

MATCHED HARDWARE

- Tricon I/O chassis
- voltage-matched external termination panel
- 24 or 48 VDC field input circuits
- hot-spare module position

INSTALLATION CONTROL RECORD

CONTROL ITEM	REQUIRED RECORD
Identity	3504E / 3504E recorded
Physical interface	Tricon I/O chassis
Companion check	voltage-matched external termination panel
Functional proof	Scans sixty-four commoned DC inputs through three independent channels
Application test	High-density shutdown permissive acquisition

02 WIRING & INTERFACE CHECKS

CHECK ITEM	REQUIRED VALUE
Module type	TMR digital input
Input points	64 commoned; DC coupled
Configured voltage	24 VDC or 48 VDC
DC range	20 to 72 VDC
Maximum voltage	72 VDC
OFF-to-ON at 24 V	>18 VDC
ON-to-OFF at 24 V	<6 VDC
OFF-to-ON at 48 V	>32 VDC
ON-to-OFF at 48 V	<11 VDC
Typical hysteresis	4 VDC / 7 VDC
Input delay	<10 ms OFF-to-ON / ON-to-OFF
Nominal input impedance	>30 kOhm
Field power per ON point	Negligible
Input indicators	1 per point

FIELD NOTE

Select 24 or 48 V operation in the approved TriStation configuration, match the corresponding termination panel, and prove threshold, channel voting, and stuck-state diagnostics.

03 COMMISSIONING WORKFLOW



COMMISSIONING ACCEPTANCE EVIDENCE

EVIDENCE ITEM	ACCEPTANCE CONDITION
Identity	3504E / 3504E recorded
Physical interface	Tricon I/O chassis
Companion check	voltage-matched external termination panel
Functional proof	Scans sixty-four commoned DC inputs through three independent channels
Application test	High-density shutdown permissive acquisition

04 RETURN-TO-SERVICE RECORD

- ☐
- Do not apply a threshold or panel selection from a 3503E or 3505E module.
- ☐
- Exercise representative OFF-to-ON and ON-to-OFF transitions on all channel groups.
- ☐
- Review point status, PASS/FAULT/ACTIVE, and hot-spare behavior before release.
- ☐
- Confirm the intended process response before normal operation.

VERIFICATION RECORD

TECHNICIAN

DATE

CABINET / POSITION

FINAL DIAGNOSTIC STATE

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
Triconex 3008	Main Processor Module	Open product page
Triconex 4210	Remote Extender Module Set	Open product page
Triconex 4119A	Enhanced Intelligent Communication Module	Open product page

SOURCE IDENTIFIERS

Tricon Systems Technical Product Guide
9791007-013

APTER POWER SALES TEAM

WHATSAPP / PHONE

+86 180 3023 5313

EMAIL

sales13@apterpower.com

WEBSITE

www.apterpower.com

