

3624

16-Point 24 VDC Supervised Digital Output Module

Triconex 3624 is a 16-point 24 VDC supervised digital-output module for Tricon safety systems. It uses opto-isolated, commoned, self-protected TMR outputs and is documented with the 9662-610 termination panel.

PRODUCT SNAPSHOT

BRAND

Triconex

FAMILY

Tricon v9-v10 digital output

PART

3624

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PRODUCT OVERVIEW

Triconex 3624 is a 16-point 24 VDC supervised digital-output module for Tricon safety systems. It uses opto-isolated, commoned, self-protected TMR outputs and is documented with the 9662-610 termination panel.

1

Drives sixteen supervised 24 VDC digital-output points

2

Uses opto-isolated, commoned output channels in a TMR Tricon architecture

3

Interfaces to the documented 9662-610 digital-output termination panel

4

Reports missing-load conditions for controlled field commissioning

SYSTEM COMPONENTS

Tricon main and I/O chassis

9662-610 commoned digital-output termination panel

24 VDC field supply and supervised loads

Tricon v9-v10 configuration

TECHNICAL NOTE

Confirm the 9662-610 pairing, commoned power polarity and load at every point before energization; prove the missing-load diagnostic and a controlled output response before release.

TECHNICAL DATA

PARAMETER	VALUE
Module type	TMR digital output
Output voltage	24 VDC
Output points	16
Output arrangement	Opto-isolated, commoned, supervised

PARAMETER	VALUE
Protection	Self-protected
Compatible termination panel	9662-610
Panel current limit	16 A maximum
Required load	Load at every point; 470 ohm, 10 W resistor if no field load

ENGINEERING NOTE

Confirm the 9662-610 pairing, commoned power polarity and load at every point before energization; prove the missing-load diagnostic and a controlled output response before release.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
Triconex 3625	Supervised Digital Output Module	View Triconex 3625 page
Triconex 3664	Dual Digital Output Module	View Triconex 3664 page
Triconex 9662-610	Digital Output Termination Panel	View Triconex 9662-610 page
Triconex 3703E	Analog Input Module	View Triconex 3703E page
Triconex 3511	Analog Input Module	View Triconex 3511 page
Triconex 3704E	Analog Input Module	View Triconex 3704E page
Triconex EMPII 3006	Main Processor Module	View Triconex EMPII 3006 page
Triconex 9853-610	Termination Panel	View Triconex 9853-610 page

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Emergency shutdown and trip-valve outputs

Drives sixteen supervised 24 VDC digital-output points

Fire-and-gas final-element actuation

Uses opto-isolated, commoned output channels in a TMR Tricon architecture

Burner-management shutdown circuits

Interfaces to the documented 9662-610 digital-output termination panel

Supervised solenoid and relay outputs

Reports missing-load conditions for controlled field commissioning

PRODUCT PRECAUTIONS

- 1 Verify the complete 3624 marking and assigned Tricon output slot before removal.
- 2 Isolate commoned 24 VDC power and prove the connected safety loads de-energized.
- 3 Confirm 9662-610 compatibility and keep the panel within its 16 A total-current limit.
- 4 Preserve the numbered 1-16 channel identity and documented PWR+ / PWR- polarity.
- 5 Install a field load at every point; use the documented 470 ohm, 10 W resistor when no load is present.
- 6 Use ESD controls and inspect the keyed module and termination-panel connectors.
- 7 Exercise a controlled output and confirm the field response, load indication and module diagnostics.
- 8 Retain the channel-to-load record and commissioning result before returning the safety function to service.

ENGINEER FAQ

Q1 Does 3624 match Tricon main and I/O chassis in a Emergency shutdown and trip-valve outputs installation?

Verify the complete 3624 marking, the documented Tricon v9-v10 digital output position and the installed Tricon main and I/O chassis before fitting the assembly.

Q2 How should 3624 be wired when it must drives sixteen supervised 24 vdc digital-output points?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for 3624; then continuity-test the affected path.

Q3 Which Tricon v9-v10 digital output records should be captured before removing 3624?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with 3624 before disconnection.

Q4 What controlled test confirms that 3624 can uses opto-isolated, commoned output channels in a tmr tricon architecture?

Apply the approved field or simulated stimulus, observe the Tricon v9-v10 digital output indication and confirm the intended response without bypassing the normal interlocks.

Q5 Which 9662-610 commoned digital-output termination panel condition should be checked when 3624 reports an abnormal state?

Check the 9662-610 commoned digital-output termination panel supply, seating and connection first, then compare channel diagnostics with the recorded 3624 baseline.

Q6 Can 3624 be moved directly into Fire-and-gas final-element actuation without validating Tricon v9-v10 configuration?

No. Confirm the Tricon v9-v10 configuration, revision, connection scheme and Tricon v9-v10 digital output configuration before transferring 3624 to that duty.

Q7 What maintenance evidence is required after 3624 is used for Burner-management shutdown circuits?

Retain the nameplate record, corrective action, final diagnostics and a controlled burner-management shutdown circuits functional-test result for 3624.

Q8 How should 3624 be returned to service in Supervised solenoid and relay outputs?

Restore power under control, verify interfaces to the documented 9662-610 digital-output termination panel, exercise the intended signal path and release 3624 only after the Tricon v9-v10 digital output remains in its approved operating state.

SOURCE Tricon Systems Technical Product Guide | 9791007-013, Product Specifications pp. 19, 26; Field Terminations Guide 9700052-018 pp. 106-109

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