

INDUSTRIAL AUTOMATION PRODUCT

3664

32-Point Dual 24 VDC Digital Output Module

Triconex 3664 is a thirty-two-point dual 24 VDC digital output module. It produces voted source outputs and supervises field-voltage agreement for safety-related control duties.

IDENTITY	VERIFIED VALUE
Manufacturer	Triconex
System family	Tricon dual digital output
Part number	3664
Country	USA
HS code	8537101190

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Technical Specifications

Technical values below are limited to the named Triconex product record.

PARAMETER	TECHNICAL VALUE
Module type	Dual serial digital output
Nominal voltage	24 VDC
Output signals	32 commoned
Voltage range	16 to 30 VDC
Maximum voltage	36 VDC
Typical voltage drop	<1.5 VDC
Power-module load	<10 W
Maximum point current	2 A
Surge current	10 A for 10 ms
Load leakage	2 mA maximum
Output protection	Self-protecting; no field-termination fuses
Point isolation	1500 VDC minimum
Status indicators	1 per point; PASS; FAULT; ACTIVE; LOAD/FUSE
Color code	Dark blue
Compatible commoned panel	9662-610
Compatible basic panel	9653-610
Compatible nonincendive panel	9671-610
Compatible ERT loop-back	9671-810

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System Role and Architecture

Triconex 3664 is a thirty-two-point dual 24 VDC digital output module. It produces voted source outputs and supervises field-voltage agreement for safety-related control duties.

FUNCTION 1

Applies two-out-of-three voting to each of thirty-two output switches

FUNCTION 2

Sources 24 VDC current to commoned field loads through dual output circuitry

FUNCTION 3

Uses voltage loopback to compare commanded state with detected field voltage

FUNCTION 4

Supports online hot-spare replacement with continuous channel diagnostics

Matched system components

- Tricon I/O chassis and hot-spare position
- 9662-610 or compatible termination panel
- 16-30 VDC field supply
- solenoids, relays, or other protected DC loads

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	Tricon I/O chassis and hot-spare position
Companion hardware	9662-610 or compatible termination panel
Field connection	16-30 VDC field supply
Primary system function	Applies two-out-of-three voting to each of thirty-two output switches
Controlled acceptance duty	De-energize-to-trip solenoid output banks

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Applications and Engineering Context

De-energize-to-trip solenoid output banks

Applies two-out-of-three voting to each of thirty-two output switches

Safety shutdown actuator commands

Sources 24 VDC current to commoned field loads through dual output circuitry

Dual-output valve manifold control

Uses voltage loopback to compare commanded state with detected field voltage

Online hot-spare DO module maintenance

Supports online hot-spare replacement with continuous channel diagnostics

TECHNICAL NOTE

Wire field power to every used output through the approved panel, confirm per-point and surge loading, and exercise loopback plus LOAD/FUSE diagnostics before enabling safety commands.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	3664 / 3664 recorded
Physical interface	Tricon I/O chassis and hot-spare position
Companion check	9662-610 or compatible termination panel
Functional proof	Applies two-out-of-three voting to each of thirty-two output switches
Application test	De-energize-to-trip solenoid output banks

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Engineering Precautions

- 1
- Verify 3664 and the de-energize-to-trip application before module replacement.
- 2
- Place all commanded equipment in the approved safe state and isolate field power.
- 3
- Record thirty-two channel assignments, common supply, and expected de-energized states.
- 4
- Confirm each load stays within the two-amp point and ten-amp surge limits.
- 5
- Use a listed termination panel and preserve the sourced-output wiring arrangement.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
Triconex 9662-610	24 VDC Digital Output Termination Panel	Open product page
Triconex 3008	Main Processor Module	Open product page
Triconex 8312	230 VAC Power Module	Open product page

MANUFACTURER SOURCE RECORD

Tricon Systems Technical Product Guide
9791007-013

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