

TRICON HIGH-DENSITY DIGITAL INPUT

Product Data Sheet

3504E

64-point 24/48 VDC TMR digital input module

INPUT POINTS	VOLTAGE	DC RANGE	TYPE
64	24 / 48 VDC	20 - 72 VDC	TMR DI

Triconex 3504E is a high-density TMR digital input module for Tricon systems. It provides 64 commoned, DC-coupled input points and supports software-selected 24 or 48 VDC operation.

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VERIFIED TECHNICAL DATA

Product type	High-density TMR digital input module
Model number	3504E
Input points	64, commoned, DC-coupled
Nominal voltage	24 or 48 VDC; selected in TriStation 1131
DC input range	20 - 72 VDC
Maximum voltage	72 VDC
Input delay	< 10 ms off-to-on / on-to-off
Input impedance	> 30 kOhm nominal
Diagnostic indicators	One per point; PASS, FAULT, ACTIVE
Color code	Dark red

Technical values are limited to the supplied Tricon Product Specifications and applicable Schneider Electric Triconex system information.

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PRODUCT IDENTITY AND FUNCTION

The 3504E continuously verifies the ability of the Tricon to detect transitions to the opposite state. On this TMR module, critical signal paths are triplicated and each channel conditions field signals independently between the field and the Tricon.

All Tricon digital input modules support hot-spare modules and use a separate external termination panel with a cable interface to the Tricon backplane. Mechanical keying helps prevent installation in an improper chassis slot.

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OFFICIAL APPLICATIONS

- Emergency shutdown discrete-input monitoring
- Burner-management permissive and trip input monitoring
- Fire-and-gas detector and alarm input monitoring
- High-integrity pressure-protection interlock monitoring
- Turbomachinery protection and critical-control input monitoring

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SYSTEM COMPATIBILITY

Confirm the Tricon chassis, mechanically keyed slot, external termination panel and cable, field-voltage selection, TriStation 1131 configuration, input thresholds and hot-spare arrangement. Do not approve substitution from appearance or a partial model reference.

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OFFICIAL SOURCES

[Tricon Product Specifications - Standard Tricon Products table \(page 20\) and 64-Point Digital Input Module Specifications \(page 36\)](#)

[Schneider Electric - EcoStruxure Triconex Safety Instrumented Systems and documented safety applications](#)

AMIKON PRODUCT SUPPORT

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