

Triconex 3502E Manual

Brand	Triconex
Product Series	Triconex
Product Type	Module Type: TMR (Triple Modular Redundant) with Self-Test functionality

Description

Models 3502E can self-test to detect stuck-On conditions where the circuitry cannot tell whether a point has gone to the Off state. Since most safety systems are set up with a de-energize-to-trip capability, the ability to detect Off points is an important feature. To test for stuck-On inputs, a switch within the input circuitry is closed to allow a zero input (Off) to be read by the optical isolation circuitry. The last data reading is frozen in the I/O communication processor while the test is running.

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All TMR Digital Input Modules support hot-spare capability, and require a separate external termination panel (ETP) with a cable interface to the Tricon controller backplane. Each module is mechanically keyed to prevent improper installation in a configured chassis.

3502E Module Technical Specifications

Core Architecture and Type

Module Type: TMR (Triple Modular Redundant) with Self-Test functionality.

Color Code: Dark Red.

Stuck Test: Integrated (Status: On).

Electrical and Input Parameters

Nominal Voltage: 48 VAC/VDC.

Input Points: 32 points, commoned in groups of 8.

Voltage Range: * AC/DC Range: 35 to 95 VAC/VDC.

Maximum Voltage: 95 VAC/VDC.

Frequency Range: DC or 47–63 Hz.

Nominal Input Impedance: Greater than 2.9 K Ω .

Switching Logic and Performance

Switching Thresholds:

Off to On: Less than 32 VAC/VDC.

On to Off: Greater than 11 VAC/VDC.

Typical Hysteresis: 7 VAC/VDC.

Nominal Turn-On Current: 6 to 9 mA.

Input Delay:

OFF to ON: Less than 8 ms.

ON to OFF: Less than 15 ms.

Isolation and Power Load

Point Isolation: 1,500 VDC.

Nominal Field Power Load: www.AutoDCSTech.com

Per On point: 1.0 watts.

At maximum field voltage: 3.2 watts.

Diagnostic and Status Indicators

Input Status Indicators: 1 dedicated LED per point.

Module Status Indicators: PASS, FAULT, and ACTIVE status LEDs.

Models Dark Red.

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