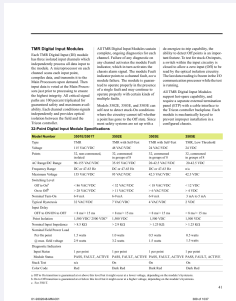


AMIKON TECHNICAL INTELLIGENCE

Product Data Sheet

Triconex 3501E

TMR Digital Input Module



INPUTS	FIELD	ISOLATION	SOURCE
32	115 VAC/VDC	1500 VDC	9791007-024

Triconex 3501E acquires thirty-two isolated, non-commoned 115 VAC/VDC digital inputs through a Triple Modular Redundant architecture. The documented operating range is 90-155 VAC/VDC at DC or 47-63 Hz.

01 VERIFIED PRODUCT PARAMETERS

Input architecture	Triple Modular Redundant
Input points	32, non-commoned and isolated
Nominal field voltage	115 VAC/VDC
Input operating range	90-155 VAC/VDC
Input frequency	DC or 47-63 Hz
Maximum input voltage	155 VAC/VDC
Off-to-on switching level	Less than 86 VAC/VDC
On-to-off switching level	Greater than 28 VAC/VDC
Nominal turn-on current	6-9 mA
Typical hysteresis	32 VAC/VDC

Technical values were verified against Invensys Tricon Technical Product Guide, 9791007-024 Rev 0, November 2012.

02 ADDITIONAL TECHNICAL DATA

Input transition delay	Off to on <8 ms; on to off <15 ms
Nominal input impedance	Greater than 8.5 kohm
Field power per on point	1.5 W nominal; 2.9 W at maximum voltage
Diagnostic indicators	One input status per point; Pass, Fault and Active
Point isolation minimum	1500 VDC

03 SYSTEM ROLE AND APPLICATIONS

Each input is independently conditioned and optically isolated before data is voted at the Main Processors. Model 3501E has a documented point-isolation minimum of 1500 VDC; preserve the exact model and termination arrangement during replacement.

- Read thirty-two separately isolated 115 VAC/VDC field states for the approved Tricon control application while preserving non-commoned wiring.
- Use the triplicated input channels to condition each signal independently before the Main Processors vote the received data for the control program.
- Maintain availability through the documented hot-spare arrangement, approved external termination panel and mechanically keyed chassis slot.

04 OFFICIAL INSTALLATION FACTS

- Confirm the exact module label and approved 115 VAC/VDC input circuit.
- Verify field isolation, the thirty-two non-commoned point assignments and termination panel.
- Confirm the replacement or hot spare is Active before withdrawing the faulty module.
- Remove or insert only one module at a time and use the mechanically keyed slot.

05 OFFICIAL DOCUMENTATION

Invensys Tricon Technical Product Guide, 9791007-024 Rev 0, November 2012

AMIKON PRODUCT SUPPORT

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