

Product Data Sheet

TMR Digital Input Module

[illegible]

Triconex 3502E acquires thirty-two nominal 48 VAC/VDC digital inputs commoned in groups of eight. Its self-test checks the ability to detect a normally energized circuit changing to the off state.

VERIFIED PRODUCT PARAMETERS

Input points	32, commoned in groups of 8
Nominal field voltage	48 VAC/VDC
Recommended input range	35-95 VAC/VDC
Maximum input voltage	95 VAC/VDC
Input frequency	DC or 47-63 Hz
Off-to-on threshold	27 VAC/VDC typical; 32 VAC/VDC worst-case
On-to-off threshold	14 VAC/VDC typical; 11 VAC/VDC worst-case
Typical hysteresis	7 VAC/VDC
Nominal turn-on current	6-9 mA
Nominal input impedance	Greater than 2.9 kohm

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02 ADDITIONAL TECHNICAL DATA

Input transition delay	Off to on <8 ms; on to off <15 ms
Optical isolation	1000 VAC minimum; 1500 VDC minimum
Logic power	Less than 10 W
Field power per on point	1.0 W nominal; 3.2 W at maximum field voltage
Diagnostic glitch duration	20 ms typical

03 SYSTEM ROLE AND APPLICATIONS

The recommended field range is 35-95 VAC/VDC, with DC or 47-63 Hz input frequency. Assess threshold margin, grouping and diagnostic coupling against the connected circuit instead of substituting the ratings of a 24 V input module.

- Read field status within the recommended 35-95 VAC/VDC range. Check the voltage actually delivered at the input and preserve the four groups of commoned connections.
- Use the documented self-test behavior when monitoring loss of an energized signal. Include the applicable input-transition delay in the complete engineered response.
- Review an adjacent de-energized point that shares a circuit with another receiver. The manufacturer warns that diagnostic glitch output can falsely energize a paralleled external input.

04 OFFICIAL INSTALLATION FACTS

- Confirm the exact 3502E label and 48 VAC/VDC input class.
- Check field voltage, common groups and the approved termination.
- Resolve a field fault before attributing the problem solely to the module.
- Ensure the replacement or hot spare is Active and the faulty module is not Active before removal.

05 OFFICIAL DOCUMENTATION

Invensys 9700077-012, February 2009

AMIKON PRODUCT SUPPORT

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