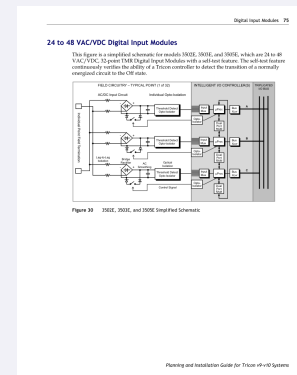


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

Invensys Triconex 3503E

TMR Digital Input Module



PRODUCT	3503E
FAMILY	Tricon v9-v10
FUNCTION	TMR Digital Input Module
STATUS	Verify exact configuration

Prepared by Amikon Limited from Invensys 9700077-012, February 2009. This guide does not replace the complete manufacturer manual, site procedure, hazardous-area drawing, or approval document.

01 CONFIRM THE ORDERED CONFIGURATION

Input points	32, commoned in groups of 8
Input frequency	DC or 47-63 Hz
Recommended DC input range	20-42.5 VDC
Maximum input voltage	42.5 VAC/VDC
Off-to-on threshold	15 VAC/VDC typical; 18 VAC/VDC worst-case
On-to-off threshold	8 VAC/VDC typical; 6 VAC/VDC worst-case
Typical hysteresis	4 VAC/VDC

02 MOUNTING AND CONNECTION

- Verify the 3503E label, 32-point map and approved termination grouping.
- Check 24 VAC/VDC input levels and the four groups of eight commoned inputs.
- Do not use shunt-diode safety barriers without the prescribed design review.
- Review diagnostic coupling if the input signal feeds another device.
- Check Pass, Fault and Active and prove both input transitions.

24 to 48 VAC/VDC Digital Input Modules

This figure is a simplified schematic for models 3502E, 3503E, and 3505E, which are 24 to 48 VAC/VDC, 32-point TMR Digital Input Modules with a self-test feature. The self-test feature continuously verifies the ability of a Tricon controller to detect the transition of a normally energized circuit to the Off state.

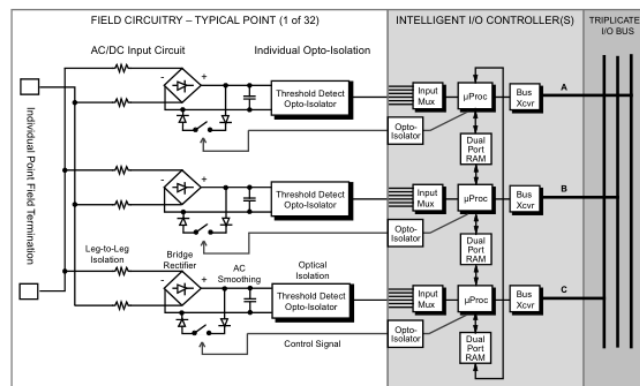


Figure 30 3502E, 3503E, and 3505E Simplified Schematic

04

CABLE ROUTING AND CONNECTION

- Check 24 VAC/VDC input levels and the four groups of eight commoned inputs.
- Do not use shunt-diode safety barriers without the prescribed design review.
- Review diagnostic coupling if the input signal feeds another device.
- Check Pass, Fault and Active and prove both input transitions.
- Apply the specified off-state exercise interval in the site proof-test plan.

05

INITIAL SYSTEM CHECKS

- Confirm model identity and compatible system components before energizing.
- Verify wiring, grounding, enclosure, and applicable hazardous-area requirements.
- Confirm normal indications and fault-contact state after commissioning.
- Record the installed order number and baseline operating condition.

06

CONTROLLED DOCUMENTS

Official source	Invensys 9700077-012, February 2009
Product record	3503E
Manufacturer	Invensys Triconex
Support	INFO@AMIKON.CN