

FIELD INSTALLATION QUICK GUIDE

Installation Instructions

Invensys Triconex 3501E
TMR Digital Input Module

[illegible]

PRODUCT	3501E
FAMILY	Tricon v9-v10
FUNCTION	TMR Digital Input Module
STATUS	Verify exact configuration

Prepared by Amikon Limited from Invensys Tricon Technical Product Guide, 9791007-024 Rev 0, November 2012. This guide does not replace the complete manufacturer manual, site procedure, hazardous-area drawing, or approval document.

01 CONFIRM THE ORDERED CONFIGURATION

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

02 MOUNTING AND CONNECTION

- 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.
- Seat the replacement and secure it under the approved maintenance procedure.

OFFICIAL INSTALLATION REFERENCE

Match your I/O module number in the first column with termination options on the right. An I/O module can be wired to a maximum of two termination panels, which may be of two different types—for example, commoned and non-commoned.

Module Model #	Module Description	Commoned Term Panels	Non-Common Term Panels	Basic Term Panels	Nonincendive Term Panels	RG 1.180 Term Panels	Fanned-out Cables	Bypass Panels	ERT Loop-Back Cables/Panels
3501E 3501T	DI, 115 VAC/VDC, 32 pts.	9561-810F	9561-110F	9551-110F	n/a	n/a	9101-010F	n/a	9141-010F
3502E	DI, 48 VAC/VDC, 32 pts.	9562-810F	n/a	9552-610F	n/a	n/a	9101-010F	n/a	9142-010F
3503E	DI, 24 VAC/VDC, 32 pts.	9563-810F 9563-910F	n/a	9553-610F	9572-610F	n/a	9101-010F	BP9228-010F	9143-010F
3504E	DI, 24/48 VDC, non-isolated, 64 pts.	9566-810F, 24V 9565-810F, 48V	n/a	9750-310F, 24V 9750-410F, 48V	9570-610F, 24V n/a	n/a	n/a	BP9229-010F n/a	n/a
3505E	DI, 24 VDC, low threshold, 32 pts.	9563-810F 9563-910F	n/a	9553-610F	9572-610F	n/a	9101-010F	BP9228-010F	9143-010F
3510	PI, 20-20,000 Hz, 8 pts.	n/a	n/a	9753-110F	n/a	n/a	n/a	n/a	n/a
3511	PI, 20-20,000 Hz, 8 pts.	n/a	n/a	9753-110F	9793-110F	9794-110F	n/a	n/a	n/a
3515	Pulse totalizer, 24 VDC, 32 pts.	n/a	n/a	9753-110F	9572-610F	n/a	n/a	n/a	n/a
3564	DI, 24 VDC, single, 64 pts.	9566-710F	n/a	9553-610F	9571-610F	n/a	9101-010F	n/a	n/a
3601E	DO, 115 VAC, 16 pts.	9661-610F 9663-610F	9661-110F 9664-110F	9651-110F	n/a	n/a	9101-010F	n/a	9670-110F 9670-610F
3601T	DO, 115 VAC, 16 pts.	9663-610F	9664-110F	n/a	n/a	n/a	n/a	n/a	n/a
3603B	DO, 120 VDC, 16 pts.	n/a	9251-210	n/a	n/a	n/a	n/a	n/a	n/a
3603E	DO, 120 VDC, 16 pts.	9661-910F ^a 9664-810F ^a	n/a	9651-110F	n/a	n/a	9101-010F	n/a	9673-810F ^a
3603T	DO, 120 VDC, 16 pts.	9664-810F ^a	n/a	n/a	n/a	n/a	n/a	n/a	9673-810F ^a
3604E	DO, 24 VDC, 16 pts.	9662-810F	9662-110F	9653-610F	9671-610F	n/a	9101-010F	n/a	9671-810F
3607E	DO, 48 VDC, 16 pts.	9667-810F	9667-110F	9652-610F	n/a	n/a	9101-010F	n/a	9672-810F
3611E	DO, 115 VAC, 8 pts.	9661-510F	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3613E	DO, 120 VDC, 8 pts.	9661-810F	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3614E	DO, 24 VDC, 8 pts.	9662-910F	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3615E	DO, 24 VDC, low power, 8 pts.	9662-710F	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3617E	DO, 48 VDC, 8 pts.	9667-910F	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3623	DO, 120 VDC, 16 pts.	9661-910F	n/a	9651-110F	n/a	n/a	9101-010F	n/a	n/a
3623T	DO, 120 VDC, 16 pts.	9664-810F	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3624	DO, 24 VDC, self-protected, 16 pts.	9662-610F	n/a	9653-610F	9671-610F	n/a	9101-010F	n/a	n/a
3625 3625A	DO, 24 VDC, self-protected, 32 pts.	9662-610F	n/a	9653-610F	9671-610F	n/a	9101-010F	n/a	9671-810F ^b
3636R 3636T	Relay output (non-triplicated), 32 pts.	n/a	9668-110F	9651-110F	n/a	n/a	9101-010F	n/a	n/a
3664	Dual DO, 24 VDC, self-protected, 32 pts.	9662-610F	n/a	9653-610F	9671-610F	n/a	9101-010F	n/a	9671-810F ^b

Official manufacturer reference reproduced from Invensys Tricon Technical Product Guide, 9791007-024 Rev 0, November 2012. Use the current source document and all referenced drawings and notes for installation.

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CABLE ROUTING AND CONNECTION

- 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.
- Seat the replacement and secure it under the approved maintenance procedure.
- Verify Pass, Fault and Active indications and test every affected input transition.

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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.

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CONTROLLED DOCUMENTS

Official source	Invensys Tricon Technical Product Guide, 9791007-024 Rev 0, November 2012
Product record	3501E
Manufacturer	Invensys Triconex
Support	INFO@AMIKON.CN