

Overview

This chapter provides information for determining field termination options using module part numbers or module types, and it describes how to install and remove termination panels and fanned-out cables.

Determining Field Termination Options by Module Part Number

This table identifies which termination products you can use with a given I/O module. Match your module part number in the left column to termination options on the right.

Table 1 Termination Product Options (Listed by Module Part Number)

Module Part #	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.	9561-810	9561-110	9551-110	n/a	n/a	9101-010	n/a	9141-010
3502E	DI, 48 VAC/VDC, 32 pts.	9562-810	n/a	9552-610	n/a	n/a	9101-010	n/a	9142-010
3503E	DI, 24 VAC/VDC, 32 pts.	9563-810 9563-910	n/a	9553-610	9572-610	n/a	9101-010	BP9228-010	9143-010
3504E	DI, 24/48 VDC, non-isolated, 64 pts.	9566-810, 24V	n/a	9750-310, 24V	9570-610, 24V	n/a	n/a	BP9229-010	n/a
		9565-810, 48V	n/a	9750-410, 48V	n/a		n/a	n/a	n/a
3505E	DI, 24 VDC, low threshold, 32 pts.	9563-810 9563-910	n/a	9553-610	9572-610	n/a	9101-010	BP9228-010	9143-010
3510	PI, 20-20,000 Hz, 8 pts.	n/a	n/a	9753-110	n/a	n/a	n/a	n/a	n/a
3511	PI, 20-20,000 Hz, 8 pts.	n/a	n/a	9753-110	9793-110	9794-110	n/a	n/a	n/a
3515	Pulse totalizer, 24 VDC, 32 pts.	n/a	n/a	9753-110	9572-610	n/a	n/a	n/a	n/a
3564	DI, 24 VDC, single, 64 pts.	9566-710	n/a	9553-610	9571-610	n/a	9101-010	n/a	n/a
3601E	DO, 115 VAC, 16 pts.	9661-610	9661-110	9651-110	n/a	n/a	9101-010	n/a	9670-110
		9663-610	9664-110						9670-610
3601T	DO, 115 VAC, 16 pts.	9663-610	9664-110	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

commoned panels, or one 9561-810 commoned panel and one 9561-110 non-commoned panel, or one 9551-110 basic panel and one 9101-010 fanned-out cable.

This table identifies termination products you can use with 64-point digital input modules.

Table 3 Termination Products for 64-Point Digital Input Modules

Termination Option	24/48 VDC (3504E)	24 VDC (3564)
Standard termination panel, commoned	9566-810 (24 V) 9565-810 (48 V)	9566-710
Basic termination panel	9750-310 (24 V) 9750-410 (48 V)	9553-610
Nonincendive termination panel	9570-610	9571-610
Bypass panel	BP9229-010	n/a
Fanned-out cable	n/a	9101-010

Pulse Input Modules

This table identifies termination products you can use with pulse input modules. You can use only one termination listed in a particular module's column.

Table 4 Termination Products for 8-Point Pulse Input Modules

Termination Option	20 Hz-20 kHz (3510)	20 Hz-20 kHz (3511)
Basic termination panel	9753-110	9753-110
Nonincendive termination panel	n/a	9793-110
RG 1.180 Term Panel	n/a	9794-110

Note You need one termination panel for each 8-point PI module.

Compatible Modules

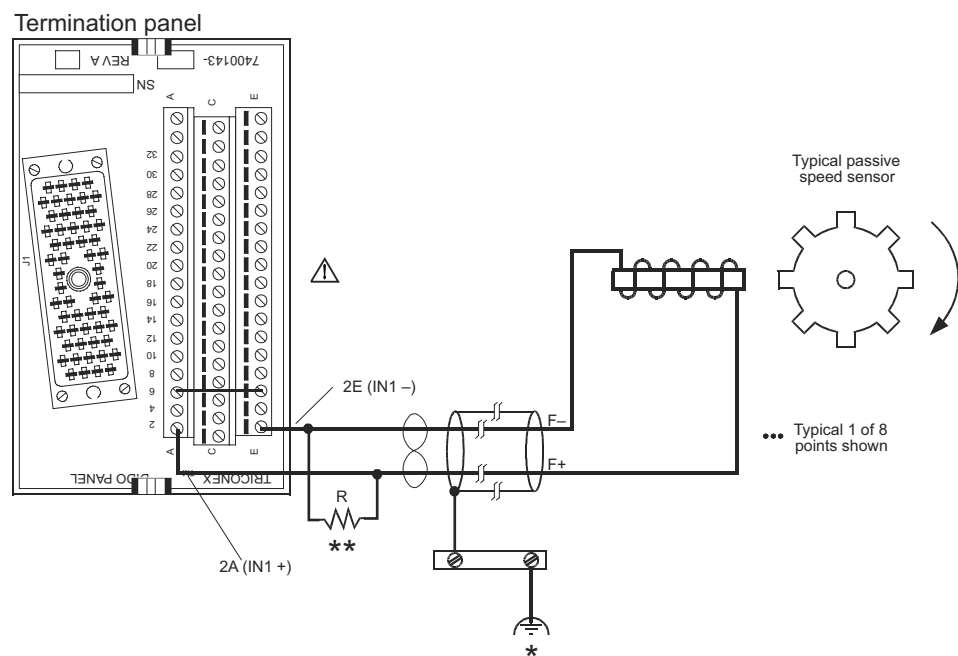
This table describes pulse input and pulse totalizer input modules compatible with 9753-110.

Table 47 Modules Compatible with 9753-110

Module Part Number	Points per Module	Module Description
3510	8	20 Hz to 20 KHz pulse input, non-commoned, AC-coupled, 50 ms typical input update rate
3511	8	20 Hz to 20 KHz pulse input, non-commoned, AC-coupled, 25 ms typical input update rate
3515	32	0 to 1 kHz pulse totalizer input, non-commoned

Field Wiring Diagrams

This figure illustrates how to connect an 8-point pulse input module and a 9753-110 to the field.



* Functional earth ground (quiet ground) is recommended for shield connections.

For shield grounding instructions, see Appendix E.

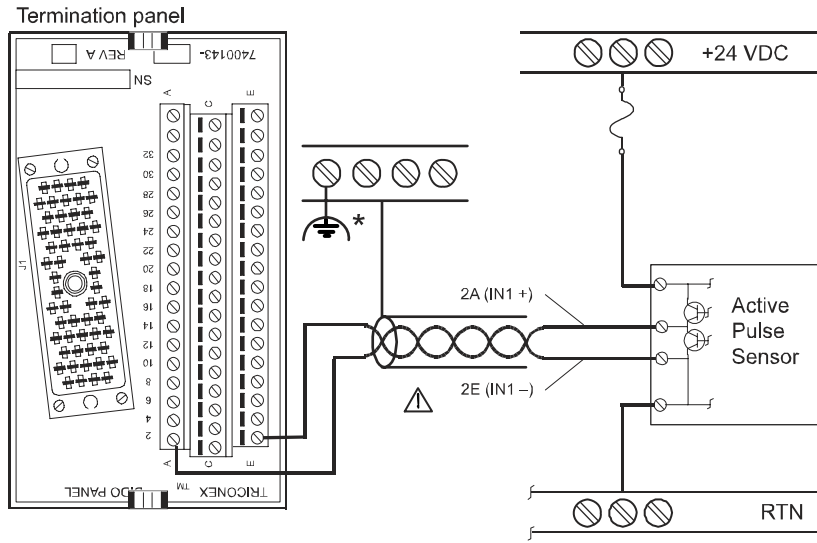
** When possible, install a terminating resistor as shown. For further information, see Technical Application Note (TAN) #006.

Figure 37 Field Wiring for 9753-110 with a 3510 or 3511 PI Module

CAUTION

Unused points must be shorted together.

This figure illustrates how to connect a 32-point pulse totalizer input module and a 9753-110 to the field.



* Quiet earth

Figure 38 Field Wiring for 9753-110 with a 3515 Pulse Totalizer Input Module

CAUTION

With the 3515 pulse totalizer input module, sensor pulse outputs should be the push-pull type. You may use high-side or low-side, solid-state output, but maximum frequency may be reduced based on cable distance. Do not use mechanical relay/switch contacts. To prevent point-to-point cross-talk, use individually shielded, twisted-pair wire for lengths greater than 50 feet (15 meters).

Simplified Schematics

This is a simplified schematic of a typical 8-point non-commoned pulse input module with a 9753-110 (1 of 8 module points shown).

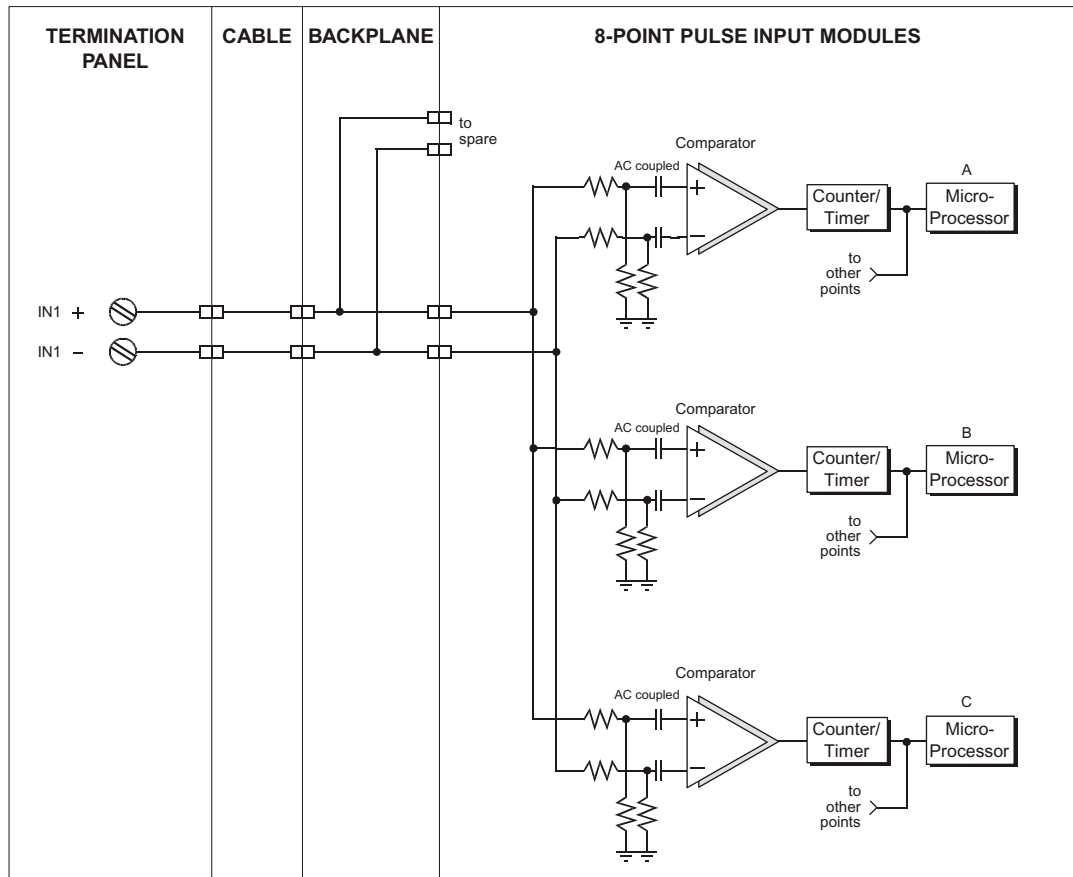


Figure 39 Simplified Schematic of a 3510 or 3511 PI Module with a 9753-110 Panel