

16-Point Current Input Term Panels

This section describes 16-point current input term panels. Model numbers of these term panels are:

- 9761-210 (current input, 0–5 VDC, 16 pts.)
- 9761-410 (current input, 0–10 VDC, 16 pts.)
- 9762-210 (current input, 0–5 VDC, 16 pts.)
- 9762-410 (current input, 0–10 VDC, 16 pts.)
- 9771-210 (current input, 0–5 VDC, user configurable, 16 pts.)

This figure represents a typical 16-point current input termination panel.

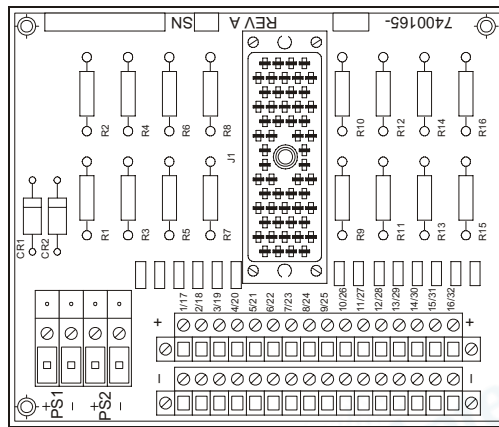


Figure 133 Typical 16-Point Current Input Term Panel

This figure represents a typical 16-point, current input, user-configurable, termination panel.

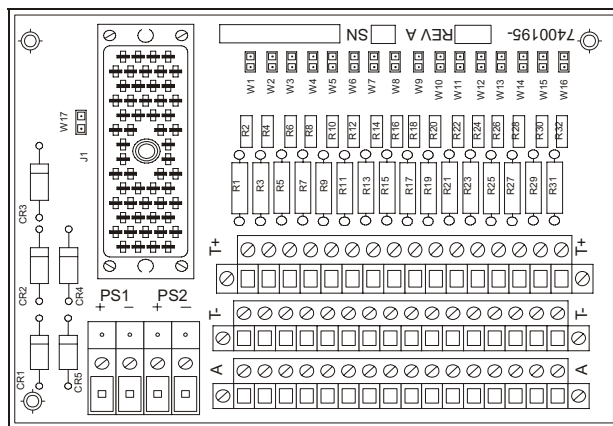


Figure 134 Typical 16-Point Current Input User-Configurable Term Panel

9771-210 (current input, 0-5 VDC, user configurable, 16 pts.)

Termination panel 9771-210 is compatible with 0 to 5 VDC, 0 to 10 VDC, and -5 to +5 VDC analog input modules. It has 16 power output terminals (+) and 16 current input terminals (-).

Each positive terminal is current-limited with a 180 Ohm series resistor. Each input has a precision 250 Ohm resistor for 0-5 VDC current-to-voltage conversion.

The panel supports redundant 24 VDC power sources with diode ORing.

When using 32-point modules, you must use two term panels for each analog input module. Each term panel comes with two sets of labels: 1-16 and 17-32. For information on how to apply the labels, see [Appendix F, Panel Labels](#).

Specifications

This table describes specifications for 9771-210.

Table 113 Specifications for Term Panel 9771-210

Feature	Description
Panel type	Current input, user-configurable
Points	16

Compatible Modules

This table describes analog input modules compatible with 9771-210.

Table 114 Modules Compatible with 9771-210

Module Part Number	Points per Module	Module Description
3700	32	0-5 VDC, non-commoned, differential, DC-coupled, TMR
3700A	32	0-5 VDC, non-commoned, differential, DC-coupled, TMR, +6% input over-range measurement
3703E	16	0-5 VDC or 0-10 VDC (Use TriStation to configure for 0-5 VDC), non-commoned, differential, isolated, TMR
3721	32	0 to 5 VDC or -5 to +5 VDC (Use TriStation to configure input range), differential, DC-coupled, TMR

Field Wiring Diagrams

This figure illustrates how to connect a 16-point or 32-point analog input module and a 9771-210 to the field (1 of 16 or 32 module points shown). See [Appendix E, Shield Ground](#) for shield ground installation guidelines.

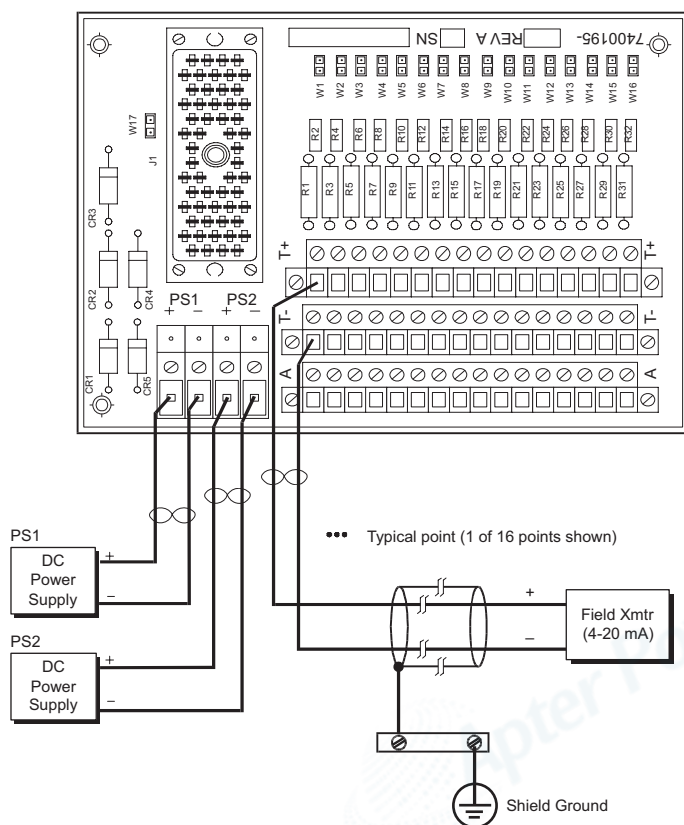


Figure 144 Field Wiring for 9771-210 with a 3700, 3700A, 3703E, or 3721 AI Module

This figure illustrates how to connect a 16-point or 32-point analog input module and a 9771-210 to the field and another system, such as a DCS (1 of 16 or 32 module points shown). See [Appendix E, Shield Ground](#) for shield ground installation guidelines.

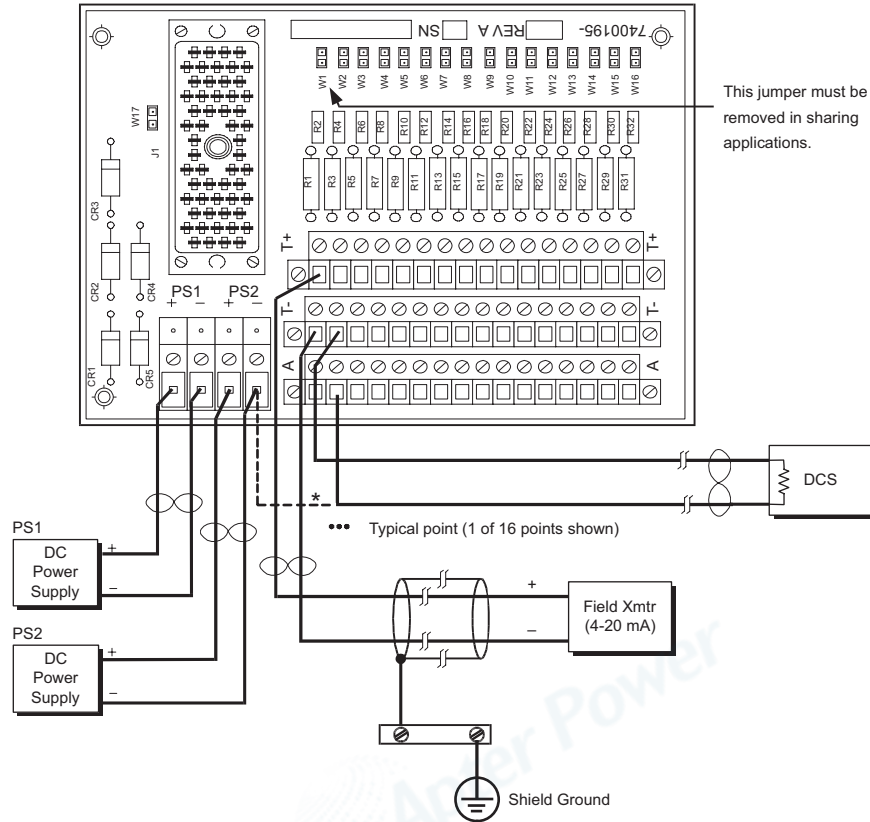


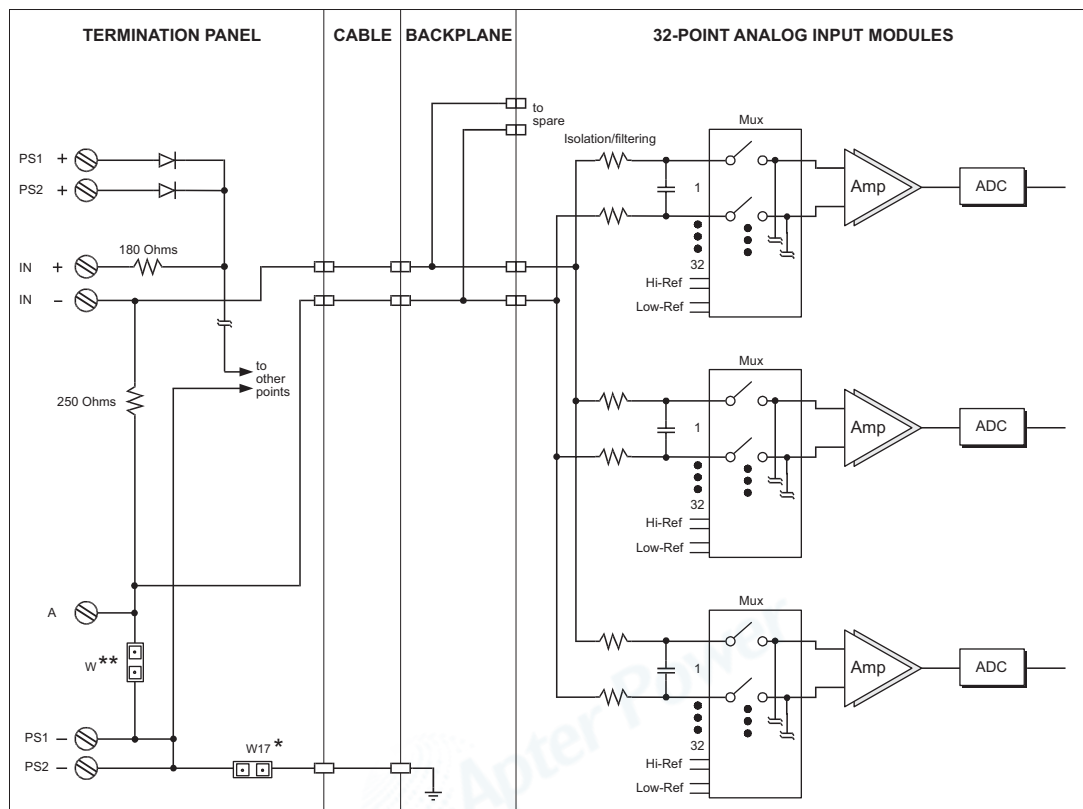
Figure 145 Field Wiring for 9771-210 with a 3700, 3700A, 3703E, or 3721 AI Module—Sharing with Another System



Sharing a transmitter between the Tricon and another system may violate restrictions regarding the segregation of safety and control functions. The sharing capability of this termination panel should only be used in those applications where these restrictions do not exist, or can be otherwise mitigated.

Simplified Schematics

This is a simplified schematic of a typical 32-point analog input module with a current input panel (1 of 32 module points shown).

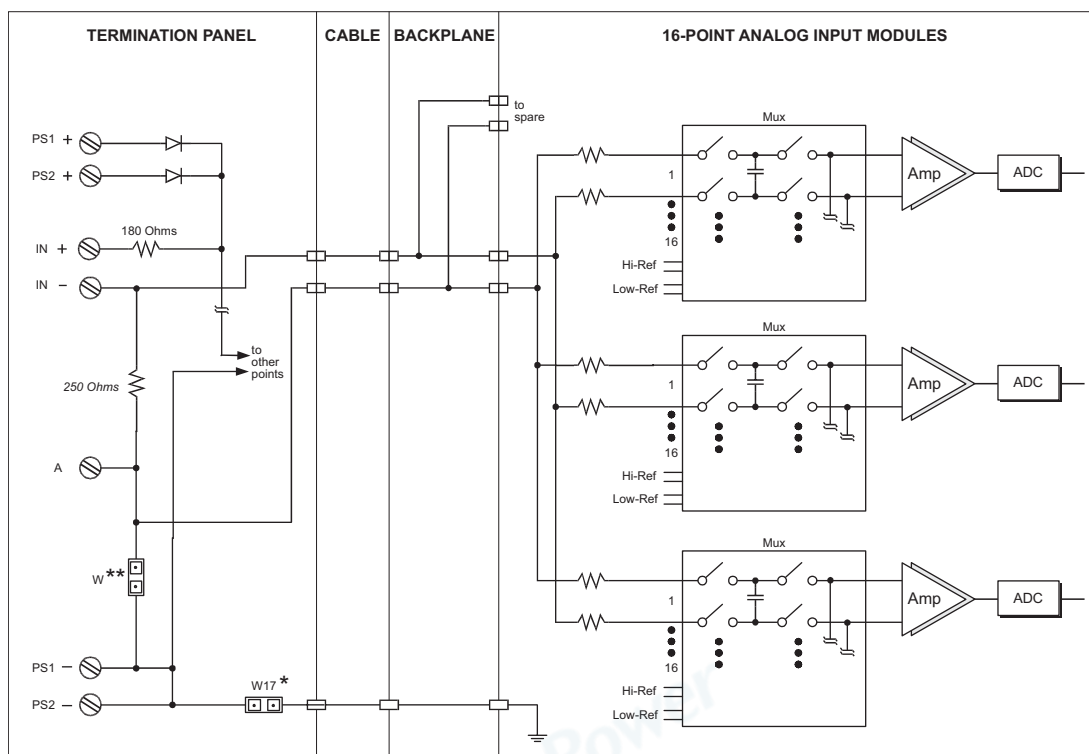


* When the 9771-210 panel is used with a 3700A or a 3721 module, do not remove the W17 jumper.

** To aid sharing the field transmitter with another system (for example, a DCS), the W jumper may be removed.

Figure 146 Simplified Schematic of a 3700, 3700A, or 3721 AI Module with a 9771-210 Panel

This is a simplified schematic of a typical 16-point analog input module with a current input panel (1 of 16 module points shown).



* For extended common-mode operation, you must remove the W17 jumper.

** To aid sharing the field transmitter with another system (for example, a DCS), the W jumper may be removed.

Figure 147 Simplified Schematic of a 3703E AI Module with a 9771-210 Panel

Table 220 Panel Dimensions (*continued*)

Panel Model	Width (across DIN rail)	Length (along DIN rail)	Height (out from DIN rail)
9766-510	4.5 in (11.43 cm)	5 in (12.7 cm)	4.25 in (10.795 cm)
9771-210	4.5 in (11.43 cm)	5.729 in (14.552 cm)	4.25 in (10.795 cm)
9782-110	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9783-110	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9784-610	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9785-610	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9786-110	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9787-110	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9789-610	4.42 in (11.23 cm)	9.88 in (25.08 cm)	4.25 in (10.795 cm)
9790-610	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9791-610	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9792-610	4.42 in (11.23 cm)	7.75 in (19.685 cm)	4.25 in (10.795 cm)
9793-110	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9794-110	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9795-610	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9853-610	3 in (7.62 cm)	5 in (12.7 cm)	4.25 in (10.795 cm)
9860-610	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9861-610	4.42 in (11.23 cm)	5.02 in (12.75 cm)	4.25 in (10.795 cm)
9863-710	3 in (7.62 cm)	6.66 in (16.9164 cm)	4.25 in (10.795 cm)
9871-810	3 in (7.62 cm)	5 in (12.7 cm)	4.25 in (10.795 cm)
BP9228-010	3.5 in (8.89 cm)	19 in (48.26 cm)	8 in (20.32 cm)
BP9229-010	3.5 in (8.89 cm)	19 in (48.26 cm)	8 in (20.32 cm)

Table 221 Part Number Cross-Reference *(continued)*

Model #	ETA	Cable
9761-410	3000510-530	4000103-510
9762-210	3000510-560	4000103-510
9762-410	3000510-580	4000103-510
9763-810	3000580-110	4000103-510
9764-310	3000712-200	4000103-510
9765-210	3000475-520	4000093-510
9765-610	3000580-230	4000103-510
9766-210	3000580-210	4000103-510
9766-510	3000580-220	4000103-510
9771-210	3000656-210	4000103-510
9782-110	3000767-280	4000142-510
9783-110	3000767-160	4000142-510
9784-610	3000767-220	4000164-510
9785-610	3000767-210	4000164-510
9786-110	3000767-230	4000164-510
9787-110	3000767-110	4000164-510
9789-610	3000768-510	4000165-510
9790-610	3000771-560	4000142-510
9791-610	3000771-510	4000164-510
9792-610	3000772-660	4000103-510
9793-110	3000767-115	4000164-510
9794-110	3000767-165	4000142-510
9795-610	3000771-460	4000142-510
9853-610	3000400-530	4000098-510
9860-610	3000770-610	4000157-510
9861-610	3000770-560	4000163-510
9863-710	1600049-010 1600049-100	4000098-510
9871-810	3000818-560	4000163-510

3700 and 3700A AI Module ETP Upgrade

This table lists ETPs used with Model 3700 and Model 3700A AI Modules in low-density systems and identifies upgrade RETMA-rail-mount ETP kits that you can replace them with when you are upgrading to the Model 3721 AI Module.

Table 224 3700 and 3700A AI Module—Upgrade to 3721 with RETMA-Rail ETP Kits

RETMA-Rail ETP Model	RETMA-Rail ETP Description	Upgrade RETMA-Rail ETP Kit Model	Upgrade ETP Kit Includes...
2750-2 ¹	Current input, 0–5 VDC, 32 pts.	2750-2L	2 x 4000184-510 (cable) 1 x 3000280-500 (interface module) 1 x 3000142-220 (ETP)
2750-8 ²	Voltage input, 0–5 VDC, 32 pts.	2750-8L	2 x 4000184-510 (cable) 1 x 3000280-500 (interface module) 1 x 3000142-280 (ETP)

1. This ETP does not require an upgrade kit for compatibility with Model 3721 AI Modules in low-density systems; however, if you want to add additional AI points, use the 2750-2L.
2. This ETP does not require an upgrade kit for compatibility with Model 3721 AI Modules in low-density systems; however, if you want to add additional AI points, use the 2750-8L.

This table lists DIN-rail-mount ETPs and associated upgrade ETP kits that you can use to replace ETPs connected to Model 3700 and Model 3700A AI Modules in low-density systems when you are upgrading to the Model 3721 AI Module.

Table 225 3700 and 3700A AI Module—Upgrade to 3721 with DIN-Rail ETP Kits

DIN-Rail ETP Model	DIN-Rail ETP Description	Upgrade DIN-Rail ETP Kit Model	Upgrade ETP Kit Includes...
9761-210	Current input, 0–5 VDC, –5–5 VDC, 16 pts.	9761-210L	2 x 4000182-510 (cable) 1 x 3000280-500 (interface module) 2 x 3000510-510 (ETP)
9763-810	Voltage input, 0–5 VDC, –5–5 VDC, 0–10 VDC, 16 pts.	9763-810L	2 x 4000182-510 (cable) 1 x 3000280-500 (interface module) 2 x 3000580-110 (ETP)
9771-210	Current input, 0–5 VDC, user configurable, 32 pts.	9771-210L	2 x 4000182-510 (cable) 1 x 3000280-500 (interface module) 2 x 3000656-210 (ETP)
9764-310	RTD/TC/AI, 0–5 VDC, –5–5 VDC, 16 pts.	9764-310L	2 x 4000182-510 (cable) 1 x 3000280-500 (interface module) 2 x 3000712-200 (ETP)