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Data Sheet: T1F-08AD-1-DS Rev B

Terminator I/O

T1F-08AD-1 Analog Input Module (use base T1K-08B or T1K-08B-1)

Insert Module into Base

Install Assembly on DIN Rail

Slide Assembly into Position

Module Specifications

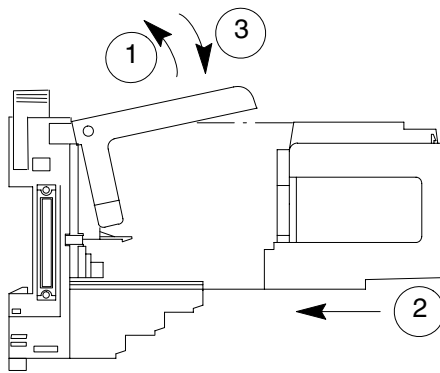
Wiring and Dimensions

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Equipment damage or serious injury to personnel can result from the failure to follow all applicable codes and standards. We do not guarantee the products described in this publication are suitable for your particular application, nor do we assume any responsibility for your product design, installation, or operation.

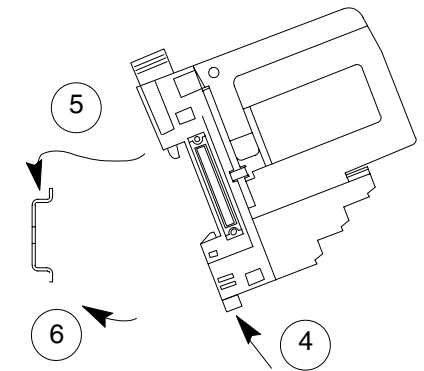
If you have any questions concerning the installation or operation of this equipment, or if you need additional information, please call us at 770-844-4200.

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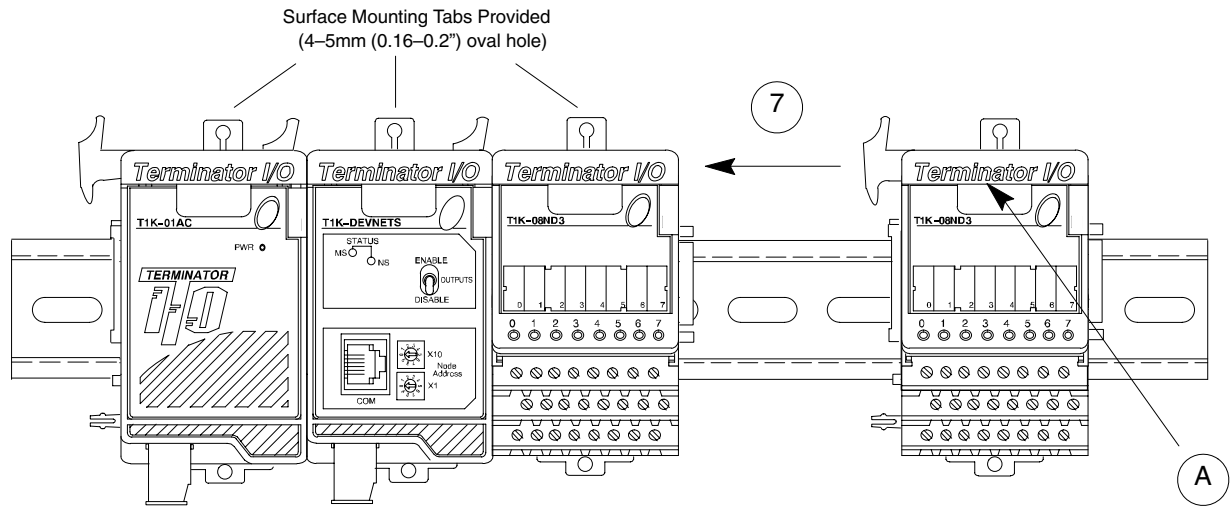
Insert Module into Base

1. Pull base arm back to allow space for module to enter base
2. Align module slides with base track
3. Press module firmly into base



Install Assembly on DIN Rail

4. Make sure the locking tab is in the latched (in) position
5. Hook upper tab over upper flange of DIN rail
6. Tilt assembly toward DIN rail until module snaps securely to DIN rail



Slide Assembly into Position on DIN Rail

7. Slide the module assembly on the DIN rail until the clip arm attaches securely to the adjacent module.

A. To remove the module from the base, lift the center of the base arm slightly outward and upward to release the module. Lifting the base arm further will eject the module.
B. To remove the module assembly from the DIN rail, lift the clip arm up and slide the module assembly away from the adjacent module. Use a small screwdriver to pull the locking tab to the down position.

Specifications

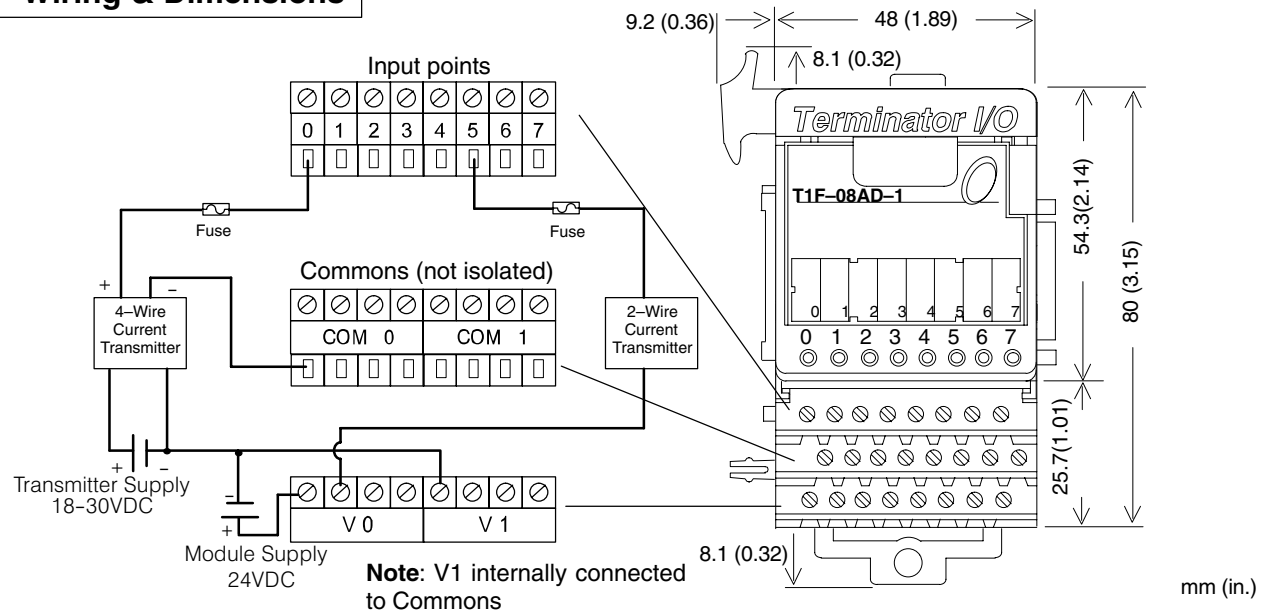
T1F-08AD-1 8 Channel Current Analog Input

Number of Channels	8, single ended (1 common)
Input Ranges	0–20mA, 4–20mA, –20 to 20mA
Resolution	14 bit (13 bit plus sign bit)
–3dB Frequency Response Sampling	Normal: 8ch enabled 30Hz Fast: 8/4/1ch 100/1000/2000Hz
Input Resistance	250 ohm
Absolute Max. Ratings	8V max. input
Conversion Time (Default: Normal Mode)	Normal Mode: 5ms per channel *Fast Mode: 0.5ms per channel
Linearity Error	+ / – 2 count max.
Input Stability (Default: Normal Mode)	Normal Mode: + / – 1 count Fast Mode: + / – 5 counts
Full Scale Error (Offset Error not included)	16 counts max.
Offset Error	2 counts max.
Max. Full Scale Inaccuracy (% of full scale) all errors included	0.18% @ 25°C 0.36% @ 60°C
Master Update Rate	8 channels per scan max.
Input Points Required	256 discrete pts. or 8 dwords (d (double) word = 32 bit word) Network Interface dependent
Base Power Required	75mA @ 5VDC
External Power Supply	18–30 VDC, 50mA, class 2
Recommended Fuse	0.032A, Series 217 Fast Acting
Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature	–20 to 70°C (–4 to 158°F)
Accuracy vs. Temperature	+ / – 50 ppm / °C max. full scale
Relative Humidity	5 to 95% (non–condensing)
Environmental Air	No corrosive gases permitted
Vibration	MIL STD 810C 514.2
Shock	MIL STD 810C 516.2
Noise Immunity	NEMA ICS3–304
Weight	136g

Input Range Resolution:

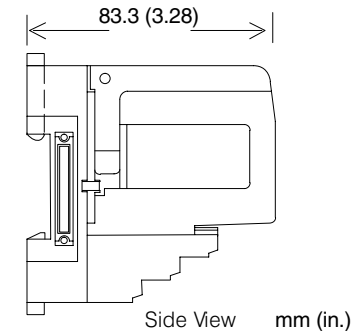
–20 to 20mA	–8192 to 8191 counts
0 – 20mA	0 – 8191 counts
4 – 20mA	1638 – 8191 counts

Wiring & Dimensions

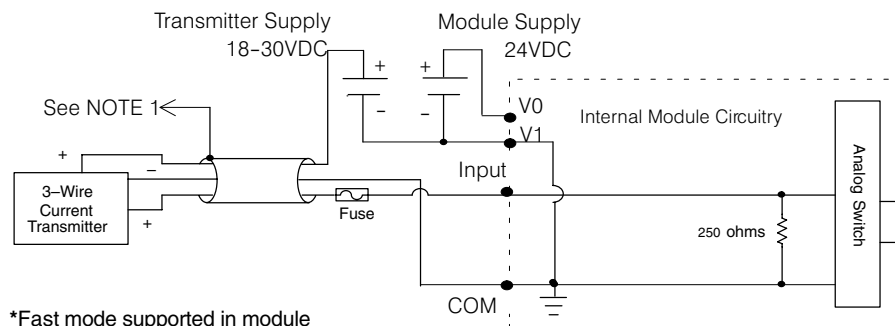


NOTES:

- 1: Shields should be grounded at the signal source.
- 2: More than one external power supply can be used, provided all the power supply commons are connected.
- 3: A Series 217, 0.032A fast-acting fuse is recommended for 4–20 mA current loops.
- 4: If the power supply common of an external power supply is not connected to the 0V terminal on the module, then the output of the external transmitter must be isolated. To avoid “ground loop” errors, recommended 4–20 mA transmitter types are:
 - For 2 or 3 wire connections: Isolation between the input supply signal and the power supply.
 - For 4 wire connections: Isolation between the input supply signal, the power supply and the 4–20mA output.



Equivalent Input Circuit



*Fast mode supported in module hardware version B or later.

Input Signal Ranges

