

Triconex 3700A Manual

Brand	Triconex
Product Series	Triconex
Product Type	TMR

Description

Analog Input Modules

An analog input (AI) module includes three independent input channels. Each input channel receives variable voltage signals from each point, converts them to digital values, and transmits the values to the three main processor modules on demand. In TMR mode, one value is then selected using a midvalue selection algorithm to ensure correct data for every scan.

Sensing of each input point is

performed in a manner that prevents a single failure on one channel from

The analog input module requires a separate external termination panel

(ETP) with a cable interface to the Tricon backplane. Each module is

mechanically keyed for proper installation in a Tricon chassis.

affecting another channel. Each analog

input module sustains complete,

ongoing diagnostics for each channel.

Failure of any diagnostic on any

channel activates the Fault indicator for the module, which in turn activates the

chassis alarm signal. The module's

Fault indicator merely reports a channel

fault, not a module failure—the module

can operate properly with as many as

two faulty channels.

Analog input modules support hotspare capability which allows online replacement of a faulty module.

Model Number 3700/3700A

Voltage 0-5V, +6% (only 3700A)

Type TMR

No. of Input Points 32, diff, DC coupled

Isolated Points No

Input Update Rate 55ms

Resolution 12 bits

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Accuracy $< .15\%$ of FSR,
from 0° to 60°C
Input Resistance (load) $30\text{ M}\Omega(\text{DC})$, min.
Power-Off Resistance $30\text{ K}\Omega(\text{DC})$, typical
Common Mode Rejection -80 dB (DC-100Hz),
typical
Common Mode Range -12V to $+12\text{V}$ peak
Leg-to-Leg Isolation $200\text{ K}\Omega$ typical
Normal Mode Rejection
@8Hz -3 dB
@60Hz -17 dB
@120Hz -23 dB
Input Overrange $150\text{ VDC}/115\text{ VAC}$
Protection continuous
Current Range $0\text{-}20\text{ mA}$,
 $250\text{ }\Omega$ shunt
Diagnostic Indicators
Module Status PASS, FAULT, ACTIVE
Color Code Yellow

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