

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

TRICONEX

3703E

ISOLATED TMR ANALOG INPUT MODULE

Selected official pages follow this cover with source pagination retained.

REFERENCE PACKAGE

Source: Planning and Installation Guide for Tricon v9-v10 Systems

OFFICIAL MANUFACTURER DOCUMENT

Assembly 9700077-012

16-Point Isolated Analog Input Modules

This figure is a simplified schematic for model 3703E, which is a 16-point TMR Analog Input Module that can be configured as 0 to 5 VDC or 0 to 10 VDC.

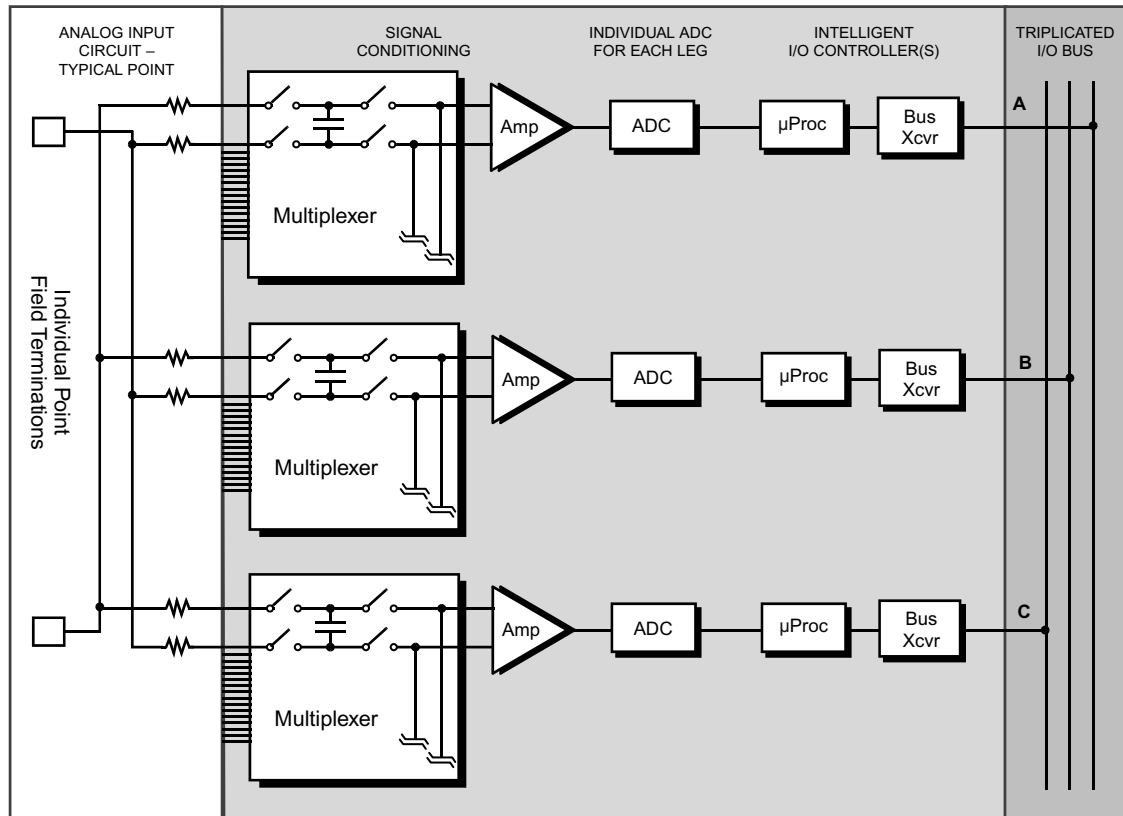


Figure 20 3703E Simplified Schematic

This figure shows the front panel of model 3703E.

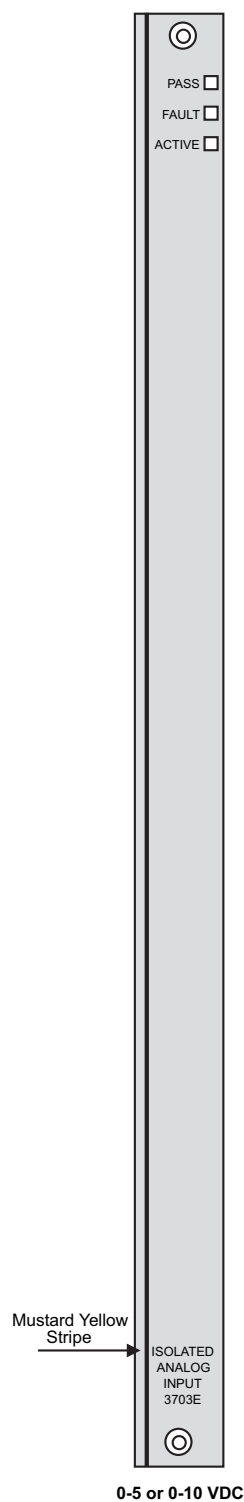


Figure 21 3703E Front Panel

3703E Specifications

This section includes specifications for model 3703E, which is an isolated TMR Analog Input Module.



If the common-mode voltage range of a channel is exceeded, Triconex does not guarantee proper operation of the module and accuracy of other channels.

Table 15 3703E Analog Input Specifications

Feature	Specification
Color code	Mustard yellow
Number of input signals	16 differential, isolated
Input update rate	< 50 ms
Resolution	12 bits
Accuracy	< 0.15% of FSR, from 0° to 60° C
Input resistance (load)	30 M Ω (DC) minimum
Input resistance @ power-off	30 M Ω (DC) minimum
Common mode rejection (typical)	-90 dB @ 60 Hz, minimum, -100 dB @ DC minimum
Common mode range	$\pm$ 200 VDC maximum (channel-to-channel or channel-to-ground)
Channel-to-channel isolation	20 k Ω typical
Normal mode rejection	-3 dB @ 8 Hz -17 dB @ 60 Hz -23 dB @ 120 Hz
Input range voltage	0–5 VDC or 0–10 VDC, TriStation-configurable
Input over-range measurement	+6%, 0–5.3 VDC or 0–10.6 VDC
Logic power	< 15 watts
Input over-range protection	115 VAC continuous, 150 VDC continuous
Open detect	Upscale or downscale, TriStation-configurable
Input range current	0 – 20 mA with 250 Ω shunt resistor
Module status indicators	Pass, Fault, Active
Input diagnostic fault coverage ¹	
Minimum input change	0.5% of full scale
Input change sample period	1 scan or 50 ms, whichever is greater
Minimum period of mis-compares	256 samples

Table 74 I/O and Communication Module Slot Keys *(continued)*

Model	Module Name	Top Key	Bottom Key
3624	24 VDC Supervised Digital Output (TMR)	005	004
3625	24 VDC Supervised or Non-Supervised Digital Output (TMR)	006	007
3664/3674	24 VDC Digital Output (Dual)	006	007
3636R	Relay Output, N0 (SIMPLEX)	006	002
3700	0-5 VDC Analog Input (TMR)	003	004
3700A	0-5 VDC Analog Input (TMR)	003	006
3701	0-10 VDC Analog Input (TMR)	003	003
3703E	0-5, 0-10 VDC Isolated Analog Input (TMR)	005	006
3704E	0-5, 0-10 VDC High Density Analog Input (TMR)	006	008
3706A	Non-Isolated Thermocouple Input (TMR)	003	002
3708E	Isolated Thermocouple Input (TMR)	005	007
3720	0-5 VDC Single-Ended Analog Input (TMR)	006	008
3721	0 to 5 or -5 to +5 VDC Differential Analog Input (TMR)	003	004
3805E/H	4-20 mA Analog Output (TMR)	003	008
3806	6 outputs @ 4-20mA, 2 outputs @ 8-320 mA, Analog Output (TMR)	003	008
3807	-60 to +60 mA BiPolar Analog Output (TMR)	003	008
4119	Enhanced Intelligent Communication (EICM)	001	003
4119A	Enhanced Intelligent Communication (EICM)	001	003
4200-3	Primary RXM Multi-Mode Fiber-Optic Module Set	002	003
4201-3	Remote RXM Multi-Mode Fiber-Optic Module Set	002	003
4210-3	Primary SRXM Single-Mode Fiber-Optic Module Set	002	003
4211-3	Remote SRXM Single-Mode Fiber-Optic Module Set	002	003
4329, 4329G	Network Communication (NCM) and NCMG (GPS)	001	003
4351, 4351A, 4351B, 4352, 4352A, 4352B, 4353, 4354	Tricon Communication Module (TCM)	001	003
4409	Safety Manager Module (SMM)	001	003
4509E	Hiway Interface Module (HIM)	001	004
4609	Advanced Communication Module (ACM)	001	003