

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

TRICONEX

3625

TMR DIGITAL OUTPUT 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

24 VDC Supervised or Non-Supervised Digital Output Modules

This figure is a simplified schematic for model 3625, which is a 32-point TMR Supervised or Non-Supervised Digital Output Module with a nominal range of 24 VDC.

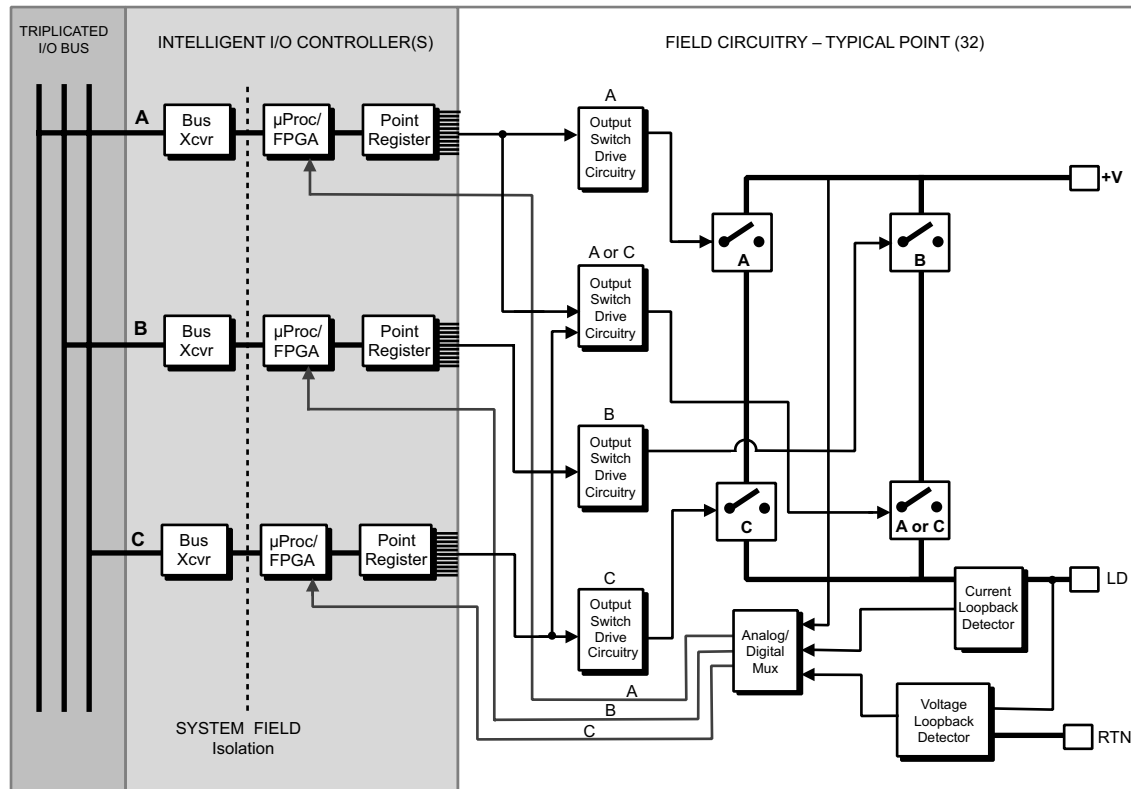


Figure 46 3625 Simplified Schematic

This figure shows the front panel of model 3625.

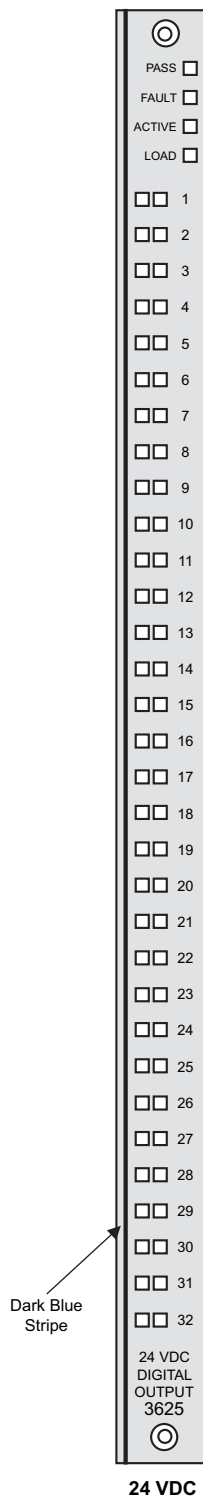


Figure 47 3625 Front Panel

3625 Specifications

This table lists the specifications for model 3625, which is a 32-point TMR Supervised or Non-Supervised Digital Output Module. This module is compatible with 16-point commoned field termination panels, and is intended for energize-to-trip and de-energize-to-trip applications. The 3625 module can be installed only in Tricon v10.2 and later systems.

Table 43 3625 Digital Output Specifications

Feature	Specification
Color code	Dark blue
Number of output signals	32, commoned
Recommended voltage range	16–32 VDC
Nominal voltage	24 VDC
Maximum voltage	36 VDC
Logic power	< 13 watts
Current ratings, maximum	1.70 ± 10% amps/point, 5 amps surge/7 ms
Total module output current (all points)	10 amps/termination panel
Minimum required load	10 mA
Leakage current to load	4 mA, maximum
Fuses (field termination module)	Not required; output switches are self-protected against over-voltage, over-temperature, and over-current
Status indicator: On or Off state	1 per point
Status indicator: Module status	Pass, Fault, Load, Active
Status indicator: Field alarm ¹	Load (1 per point)
System-to-field isolation	1500 VDC minimum
Point supervision	Can be programmed per point
Short/Open circuit detection threshold	Programmable per supervised point
Output diagnostic fault coverage ² :	
Maximum output toggle rate	Every 60 ms
Diagnostic glitch duration	2 ms maximum, 200 µs typical
On-state voltage drop:	< 0.25 VDC typical @ 250mA
At backplane	< 1.7 VDC @ 1.7A
On-state voltage drop:	< 1.25 VDC typical @ 250mA
With external termination, 10-foot cable	< 4.7 VDC @ 1.7A
On-state voltage drop:	< 2.25 VDC typical @ 250mA
With external termination, 99-foot cable	< 6.7 VDC @ 1.7A
Inductive kick-back protection (reverse EMF)	Output switches are self-protected

1. Power must be supplied to all points, including unused points on non-commoned panels.
2. The maximum output toggle rate enables proper operation of I/O diagnostics and detection of all normally detectable faults.

Note The 3625 can be installed in low-density systems that have been upgraded to v10.2.x or later. For more information, see Appendix I, Low-Density Chassis I/O Module Compatibility in the *Field Terminations Guide for Tricon v9–v10 Systems*.

32-Point Relay Output Modules

This figure is a simplified schematic for models 3636R and 3636T, which are non-triplicated Relay Output Modules.

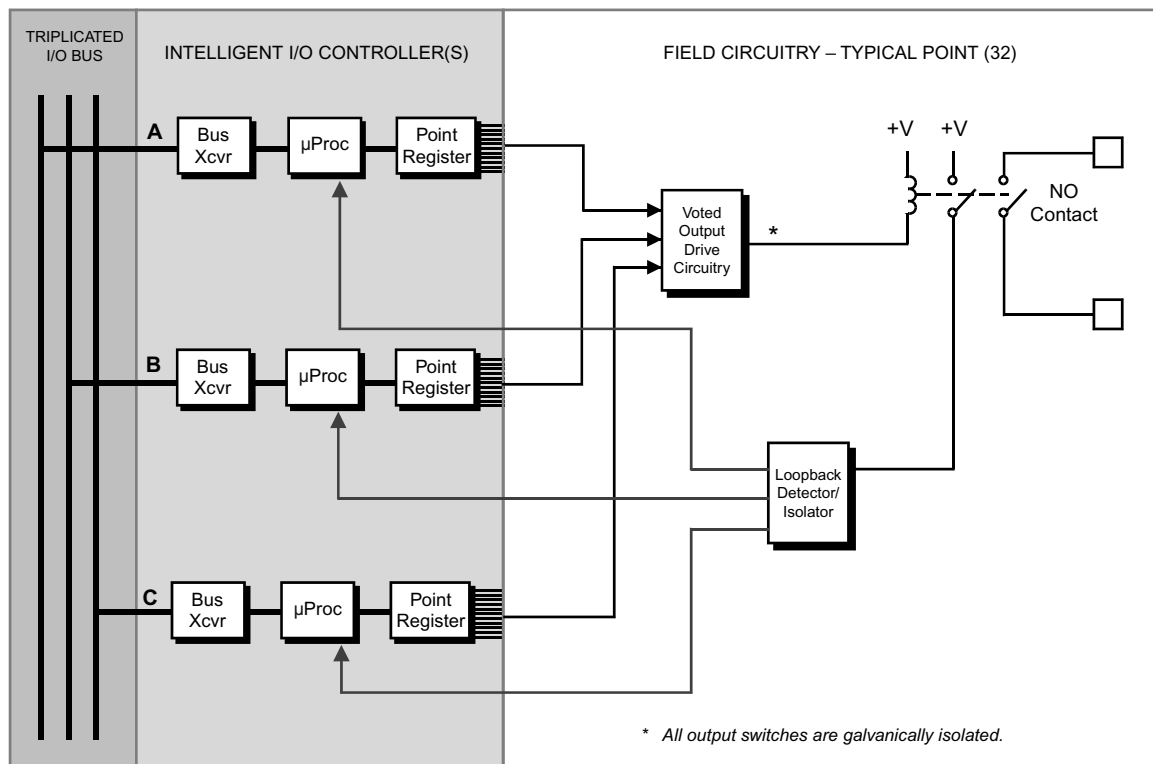


Figure 48 3636R and 3636T Simplified Schematic

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