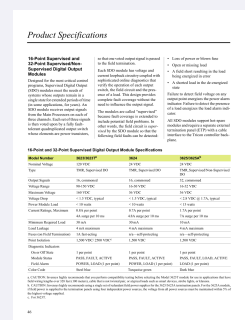


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

3625A

Supervised digital output module



PRODUCT	3625A
FAMILY	Triconex safety system
FUNCTION	Supervised digital output module
STATUS	Verify exact installed equipment

Prepared by Amikon Limited from Triconex documentation. This guide supplements the complete manufacturer manual and site procedure.

01

CONFIRM THE ORDERED CONFIGURATION

Component Type	Supervised digital output module
Order Reference	3625A
System Platform	Triconex safety control system
Primary Function	Supervised final-element control
Channel or Port Capacity	32 commoned output points
Electrical Classification	24 V DC field outputs

02

PREPARATION AND CONNECTION

- Confirm the complete 3625A article number and installed revision.
- Isolate applicable electrical and process energy using the approved site procedure.
- Record every connector, cable, terminal, shield and protective-earth connection before removal.
- Install without forcing keyed parts, then secure terminals, latches, fasteners and cable supports.

Product Specifications

16-Point Supervised and 32-Point Supervised/Non-Supervised Digital Output Modules

Designed for the most critical control programs, Supervised Digital Output (SDO) modules meet the needs of systems whose outputs remain in a single state for extended periods of time (in some applications, for years). An SDO module receives output signals from the Main Processors on each of three channels. Each set of three signals is then voted upon by a fully fault-tolerant quadruplicated output switch whose elements are power transistors,

so that one voted output signal is passed to the field termination.

Each SDO module has voltage and current loopback circuitry coupled with sophisticated online diagnostics that verify the operation of each output switch, the field circuit and the presence of a load. This design provides complete fault coverage without the need to influence the output signal.

The modules are called “supervised” because fault coverage is extended to include potential field problems. In other words, the field circuit is *supervised* by the SDO module so that the following field faults can be detected:

- Loss of power or blown fuse
- Open or missing load
- A field short resulting in the load being energized in error
- A shorted load in the de-energized state

Failure to detect field voltage on any output point energizes the power alarm indicator. Failure to detect the presence of a load energizes the load alarm indicator.

All SDO modules support hot-spare modules and require a separate external termination panel (ETP) with a cable interface to the Tricon controller backplane.

16-Point and 32-Point Supervised Digital Output Module Specifications

Model Number	3623/3623T ^a	3624	3625/3625A ^b
Nominal Voltage	120 VDC	24 VDC	24 VDC
Type	TMR, Supervised DO	TMR, Supervised DO	TMR, Supervised/Non-Supervised DO
Output Signals	16, commoned	16, commoned	32, commoned
Voltage Range	90-150 VDC	16-30 VDC	16-32 VDC
Maximum Voltage	160 VDC	36 VDC	36 VDC
Voltage Drop	< 1.5 VDC, typical	< 1.5 VDC, typical	< 2.8 VDC @ 1.7A, typical
Power Module Load	< 10 watts	< 10 watts	< 13 watts
Current Ratings, Maximum	0.8A per point 4A surge per 10 ms	0.7A per point 4.8A surge per 10 ms	1.7A per point 7A surge per 10 ms
Minimum Required Load	30 mA	30 mA	10 mA
Load Leakage	4 mA maximum	4 mA maximum	4 mA maximum
Fuses (on Field Termination)	1A fast-acting	n/a—self-protecting	n/a—self-protecting
Point Isolation	1,500 VDC/ 2500 VDC ^c	1,500 VDC	1,500 VDC
Diagnostic Indicators			
On or Off State	1 per point	1 per point	1 per point
Module Status	PASS, FAULT, ACTIVE	PASS, FAULT, ACTIVE	PASS, FAULT, LOAD, ACTIVE
Field Alarm	POWER, LOAD (1 per point)	POWER, LOAD (1 per point)	LOAD (1 per point)
Color Code	Steel blue	Turquoise green	Dark blue

a. CAUTION: Invensys highly recommends that you perform compatibility testing before selecting the Model 3623T module for use in applications that have field wiring lengths over 328 feet (100 meters), cable that is not twisted pair, or atypical loads such as smart devices, strobe lights, or klaxons.

b. CAUTION: Invensys highly recommends using a single set of redundant field power supplies for the 3625/3625A termination panels. For the 3625A module, if field power is supplied to the termination panels using four independent power sources, the voltage from all power sources must be maintained within 5% of the highest voltage supplied.

c. For 3623T.

04 COMMISSIONING CHECKS

- 01 Confirm product identity and mechanical seating.
- 02 Verify the documented supply before energising.
- 03 Inspect polarity, shielding and protective-earth connections.
- 04 Restore power in the approved sequence and observe status indications.
- 05 Test each connected input, output or communication path.
- 06 Record diagnostics and functional-test results before return to service.

05 CONTROLLED DOCUMENT

Official source	Tricon Technical Product Guide
Product record	3625A
Manufacturer	Triconex
Warranty	12 months from AMIKON
Support	INFO@AMIKON.CN

AMIKON PRODUCT SUPPORT

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