PRODUCT HIGHLIGHTS

- **Compatible with all RTP3000 TAS systems (SIS, DCS, PLC)**

- **Cost Effective**

- **Supports Source Voltages of 10 VDC to 30 VDC**

- **Inductive Load Protection Available**

- **Source up to 0.5 A per Channel**

- **I/O Bus Checking Diagnostics**

Product Overview

The 32-Channel Digital Output card is designed to be used with any 3000TAS family control system. It provides the user with means to switch up to 32 points of DC voltage under program control. It can support a range of source voltages from 10 VDC to 30 VDC.

Output switching is performed by 32 optically isolated power MOSFET drivers. The 32 output channels are factory configured as sourcing outputs. When connected to field devices such as an indicator lamp, solenoid valve, interposing relay, and other discrete control devices, the 3238 32-Channel Digital Output card can source up to 0.5 amps per channel, 12 amps maximum per card.

I/O bus checking diagnostics, card address tests and configuration tests are performed each time the chassis processor accesses the card. All data and control transfers are performed twice, once using the actual data and then using inverted data. Both versions of the data are compared to verify that all I/O bus data bits are functioning properly on the backplane. I/O bus slot address and control signal contention tests are also performed, as it is similarly done on the safety cards.

Available termination modules provide options for LED indication, fuse protection, and/or diode protection for each channel. Each card includes a five foot termination cable. You may choose to use the RTP field termination module or existing terminal blocks.
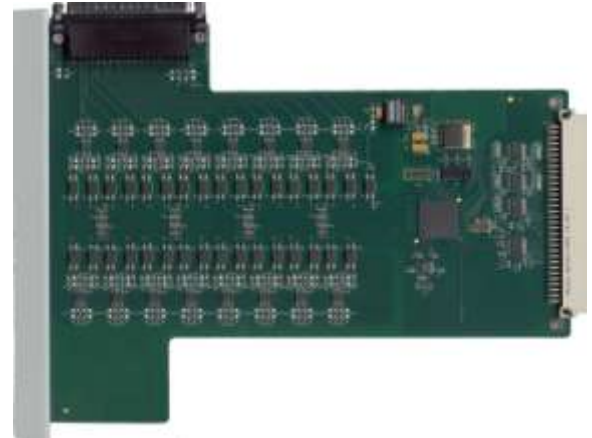
3238 32-Channel Digital Output Card

The 3238 card can be ordered with a termination cable that includes a connector on one end to mate to the card and stripped wires on the other end to mate to existing terminal blocks.

Should a card need replaced, it can be done while the system is running. Simply disable the card from within NetArrays, remove the cable attached to the card, replace the card, attach the cable to the card, and enable the card within NetArrays. A front panel LED indicates if the card is online or offline.

RTP is the Best Technology for Your Investment,
Here's why:
The 3000 TAS is a multi-processor architecture that delivers exceptional Performance and Comprehensive Diagnostics. The results speak for themselves: A reaction time of 12 msec, true 1 msec SOE (Analog and Digital), an MBTF of greater than 50000 years an MTTFS of greater than 60000 years, and a PFDavg of $5x10^{-5}$. *Compare these numbers to any other system.*
Built-in proof test diagnostics means it will never be necessary to shut down at the proof test interval. Unlimited online downloads of logic and configuration changes do not require a periodic shut down like other systems. *Compare this functionality to any other system.*
NetSuite Software: One-time price includes unlimited use of Logic Development, Alarm Manager, Data Archive and Historian and HMI without hardware or software keys. *Compare this functionality and price to all other systems.*
Finally, a Safety Instrumented System (SIS) should always take the process it protects to a safe state when it is required to do so, and it should never interfere with the operation of the process at the time. *The 3000 TAS does this better than any other system.*
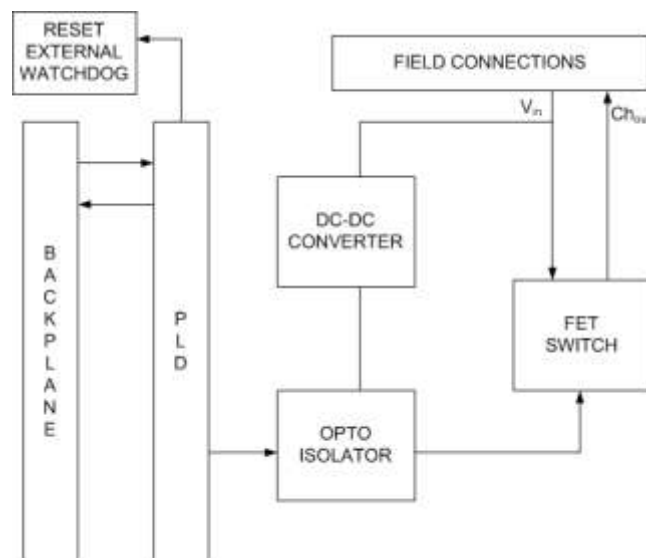
Specifications

Maximum open circuit voltage	30VDC
Maximum closed circuit current	0.5 Amp Note: Total Current for all channels not to exceed 12 Amps
Maximum power dissipation per channel	0.30 Watts
Maximum voltage drop @ 0.5 Amps	0.60 Volts
Minimum Load	0 mA
Maximum Leakage Current with Outputs off	125 uA
Backplane to Card Output Delay Time	<175μS (resistive load) (ON to OFF)
Backplane to Card Output Delay Time	<175μS (resistive load) (OFF to ON)
Isolation from RTP system	500V AC/DC
Channel to channel isolation	None
Backplane Power	+5VDC @300 mA
Field Power	+10 VDC to +30 VDC, 12.2 Amps maximum
Power Dissipation	8.7 Watts – 30 BTU/hr
Hardware Watchdog timer	.6 to 1.5 seconds
Programmable Watchdog timer	150 msec

Environmental Specification

Operating Temperature Range	–20ºC to +60ºC
Storage Temperature Range	–25ºC to +85ºC
Relative Humidity Range	10% to 95%, non-condensing

Termination Module

3099/48-001	Single Termination Module - 32 channel 24 VDC sourcing (breaks the positive)
3099/48-000	Dual Termination Module - 32 channel 24 VDC sourcing (breaks the positive)
3099/56-100	Single Termination Module - 32 channel 24 VDC digital output sourcing (breaks the positive) - rotatable mounting
3099/56-101	Single Termination Module - 32 channel 24 VDC digital output sourcing (breaks the positive) field replaceable fuses, diodes, and channel LEDs - rotatable mounting
3099/56-102	Single Termination Module - 32 channel 24 VDC digital output sourcing (breaks the positive) diodes - rotatable mounting
3099/56-103	Single Termination Module - 32 channel 24 VDC digital output sourcing (breaks the positive) channel LEDs - rotatable mounting