

STANDARD ANALOG CURRENT OUTPUT MODULES

Features

- > Provides a single channel of optically-isolated digital-to-current conversion
- > The "T" module is transformer isolated, which eliminates any ground loop problems
- > Modules plug into any Standard Classic analog I/O rack and are secured by a captive screw



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DESCRIPTION

The current output modules provide a single channel of optically-isolated digital-to-current conversion. The "T" module is transformer isolated, which eliminates any ground loop problems. The DA3 and DA8 modules are UL approved.

Specifications

	DA3	DA3T	DA8
Output Current	4-20 mA	4-20 mA	4-20 mA
Minimal Current Draw	1.6 mA	1.6 mA	1.6 mA
Accuracy	16 μ A	16 μ A	20 μ A
Power Requirements	20 mA at +15 (+/- 0.25) VDC 10 mA at -15 (+/- 0.25) VDC 24 mA at 5 VDC	22 mA at +15 (+/- 0.25) VDC 22 mA at -15 (+/- 0.25) VDC 24 mA at 5 VDC	20 mA at +15 (+/- 0.25) VDC 10 mA at -15 (+/- 0.25) VDC 24 mA at 5 VDC
Agency Approvals	UL, CE, RoHS, DFARS; UKCA	CE, RoHS, DFARS; UKCA	UL, CE, RoHS, DFARS; UKCA

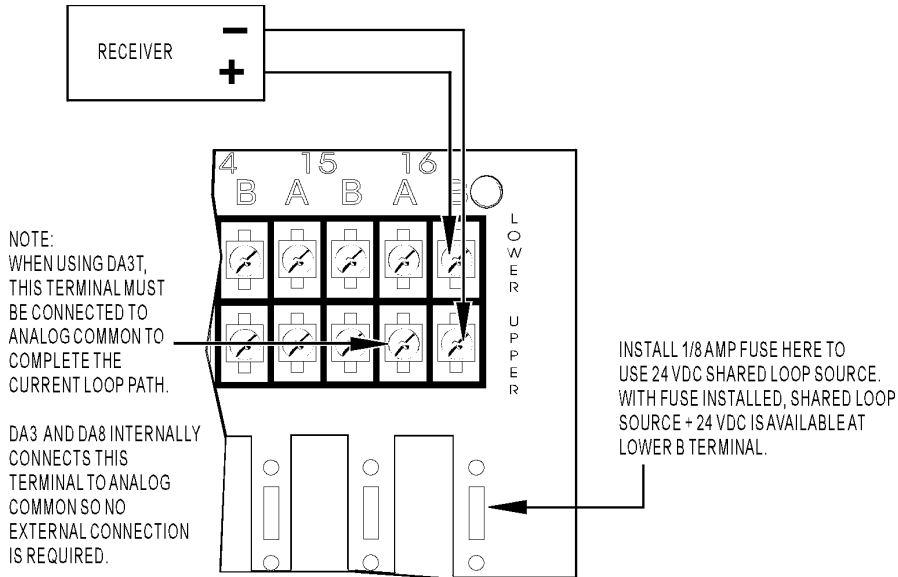
Response Time	Full scale step change in 3 ms
Resolution	12 bits
Isolation	
Input-to-Output	4,000 Vrms
Input-to-Analog Supply (T Modules)	4,000 Vrms
Temperature	
Operating	0 °C to 70 °C
Storage	- 25 °C to 85 °C

DA3T: All of the lower A terminals on the mounting rack are tied together. These provide a convenient tie point for shared loop source return. To use the DA3T with a common loop supply, connect any one lower A terminal to the shared loop source "-", then jumper upper A to lower A for each DA3T.

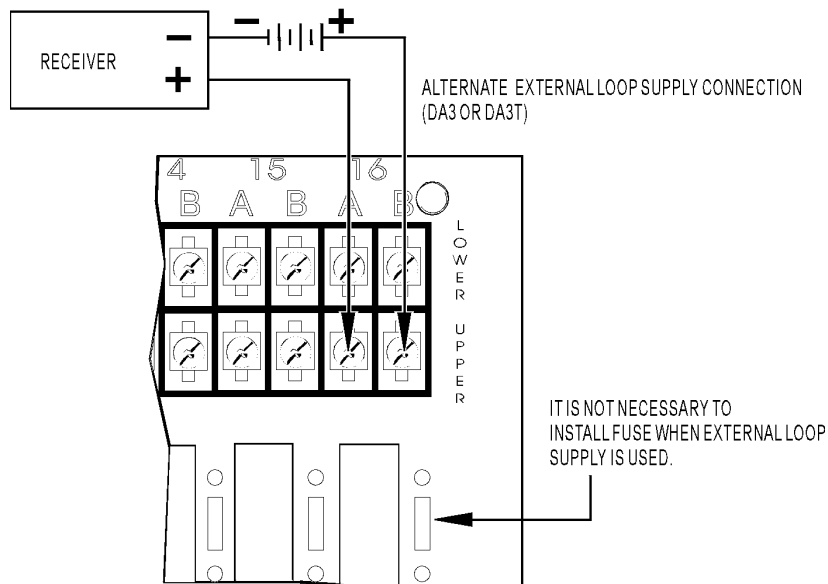
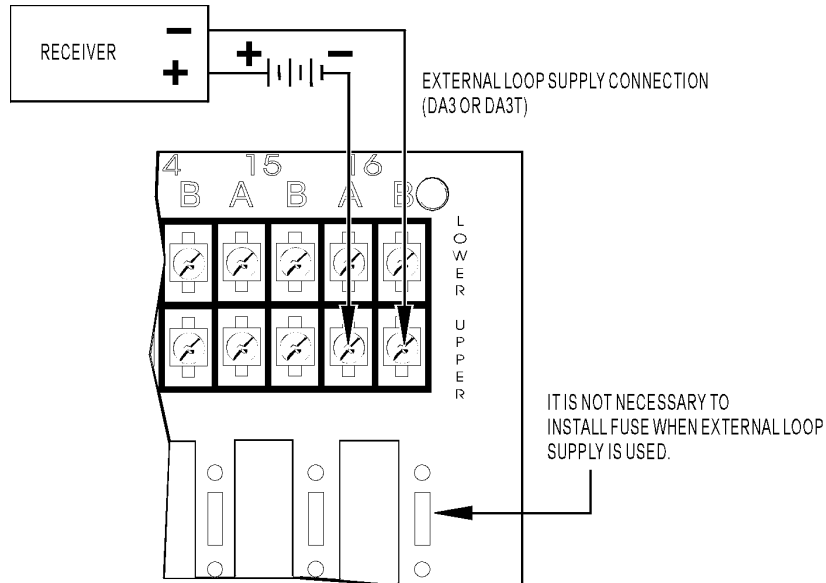
Part Numbers

Part	Description
DA3	4-20 MA Output
DA3T	4-20 MA Output Isolated
DA8	0-20 MA Output

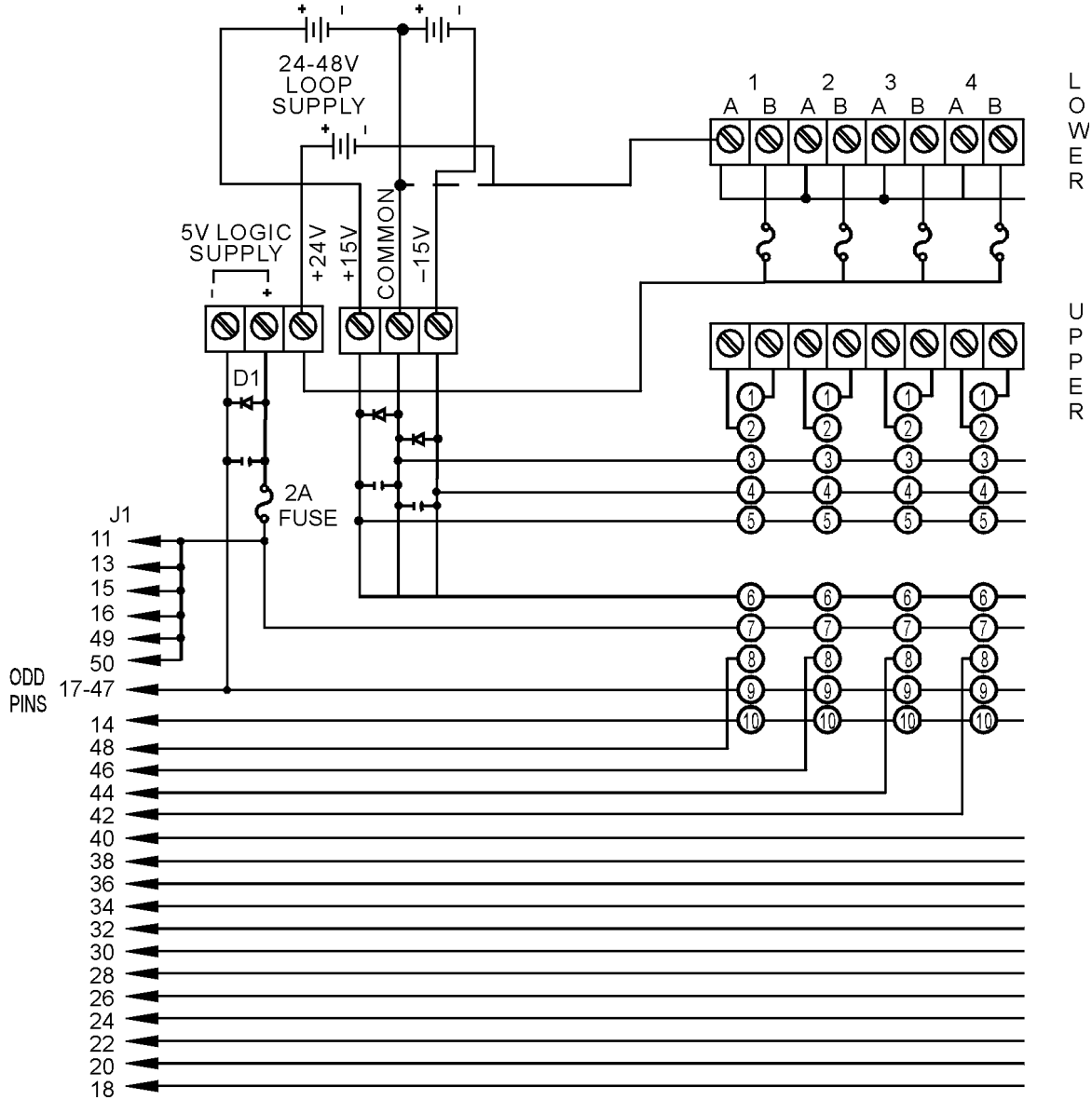
CONNECTIONS



CONNECTIONS (CONTINUED)



SCHEMATICS



PRODUCTS

Opto 22 develops and manufactures reliable, easy-to-use, open standards-based hardware and software products. Industrial automation, process control, building automation, industrial refrigeration, remote monitoring, data acquisition, and industrial internet of things (IIoT) applications worldwide all rely on Opto 22.

groov EPIC® System

Opto 22's *groov Edge Programmable Industrial Controller (EPIC) system* gives you an industrially hardened system with guaranteed-for-life I/O, a flexible Linux®-based processor with gateway functions, and software for your automation and IIoT applications.

groov EPIC I/O

groov I/O connects locally to sensors and equipment with up to 24 channels on each I/O module. Modules have a spring-clamp terminal strip, integrated wireway, swing-away cover, and LEDs indicating module health and discrete channel status.

groov I/O is hot swappable, UL Hazardous Locations approved, and ATEX compliant.

groov EPIC Processor

The heart of the system is the *groov EPIC* processor. It handles a wide range of digital, analog, and serial functions for data collection, remote monitoring, process control, and discrete and hybrid manufacturing.

In addition, the EPIC provides secure data communications among physical assets, control systems, software applications, and online services, both on premises and in the cloud.

Configuring and troubleshooting I/O and networking is easier with the EPIC's integrated high-resolution color touchscreen. Authorized users can manage the system locally on the touchscreen or on a monitor connected via the HDMI or USB ports.

groov EPIC Software

Software included in the *groov EPIC* processor:

- PAC Control engine to run PAC Control and PAC Display
- CODESYS Runtime engine to run IEC61131-3 compliant programs built with CODESYS Development System
- Optional access to the Linux operating system through a secure shell (SSH) to download and run custom applications
- *groov View* for building your own device-independent HMI, viewable on the touchscreen, PCs, and mobile devices
- Node-RED for creating simple logic flows from pre-built nodes
- Ignition Edge® from Inductive Automation®, with OPC-UA drivers to Allen-Bradley®, Siemens®, and other control systems, and MQTT communications with Sparkplug for efficient IIoT data transfer

groov RIO®

groov RIO revolutionizes remote I/O by offering a single, compact, PoE-powered industrial package with web-based configuration, commissioning, and flow logic software built in, plus support for multiple OT and IT protocols.

Standing alone, it meets the needs of small, variable I/O count applications, especially those that require data logging or data communications, commonly found in IIoT applications. *groov RIO* can also be used with a Modbus/TCP master or as remote I/O for a *groov EPIC* system.

Older products

From solid state relays (our first products) to world-famous G4 and SNAP I/O, to SNAP PAC controllers, older Opto 22 products are still supported and still doing the job at thousands of installations worldwide. You can count on us to give you the reliability and service you expect, now and in the future.



QUALITY

Founded in 1974, Opto 22 has established a worldwide reputation for high-quality products. All are made in the U.S.A. at our manufacturing facility in Temecula, California.

Because we test each product twice before it leaves our factory rather than testing a sample of each batch, we can afford to guarantee most solid-state relays and optically isolated I/O modules for life.

FREE PRODUCT SUPPORT

Opto 22's California-based Product Support Group offers free, comprehensive technical support for Opto 22 products from engineers with decades of training and experience. Support is available in English and Spanish by phone or email, Monday–Friday, 7 a.m. to 5 p.m. PST.

Support is always available on our website, including [free online training](#) at OptoU, how-to [videos](#), [user's guides](#), the Opto 22 KnowledgeBase, troubleshooting tips, and [OptoForums](#). In addition, instructor-led, hands-on [Premium Factory Training](#) is available at our Temecula, California headquarters, and you can [register online](#).

PURCHASING OPTO 22 PRODUCTS

Opto 22 products are sold directly and through a worldwide network of distributors, partners, and system integrators. For more information, contact Opto 22 headquarters at **800-321-6786** (toll-free in the U.S. and Canada) or **+1-951-695-3000**, or visit our website at www.opto22.com.