

Model 3074-A1A  
24-bit Isolated Output Register  
INSTRUCTION MANUAL

February, 1987

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**\*\*\*Special Option\*\*\***

Model 3074-S003

24-bit Isolated Output Register

December, 1992

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*Model 3074-S003*

**\*\*\*Special Option\*\*\***

Model 3074-S003

The Model 3074-S003 is the same as the Model 3074-A1A with the following exception:

Channel 1 is loaded with optical isolator (MCA255) rather than a reed relay.

KJC:rem  
December 28, 1992

# 24-bit Isolated Output Register

Available with reed-relay, optical isolator or ac-switch outputs

3074

## Features

- 24 isolated output circuits (isolated from each other and ground)
- Reed relay, optical isolator, and ac switch options available
- Internal register can be written and read from the Dataway
- Front-panel LEDs indicate state of all outputs

## Typical Applications

- General-purpose digital interface
- Remote control applications

## General Description *(Product specifications and descriptions subject to change without notice.)*

The 3074 is a single-width module containing a 24-bit register that drives 24 output circuits. Module options are available with the output circuits composed of reed relays, optical isolators, or isolated ac switches. Each output option is available with a 50-contact ribbon connector or a 50-pin "D" connector; both connector options are front-panel mounted.

Twenty-four LEDs are provided on the front panel for monitoring the states of all output circuits. The optical isolators and ac switches are provided in sockets. Because of size limitations, sockets are not provided on the reed relay option.

For all options the maximum voltage, current, and (for the reed relay option) volt-ampere ratings must be observed. Appropriate external suppression must be provided for inductive loads.

## Function Codes

Command	Q	Action
F(0):A(0) RD1	1	Reads the 24-bit Data Output register.
F(16):A(0) WT1	1	Writes the 24-bit Data Output register.
Z CZ	0	Clears the 24-bit Data Output register.

**Note:** X = 1 for all valid addressed commands.

Since both read and write commands are provided, "selective set" and "selective clear" functions can be achieved by reading the register, performing the appropriate software sequence (logical AND, etc.), and then writing the module register.

## Output Ratings

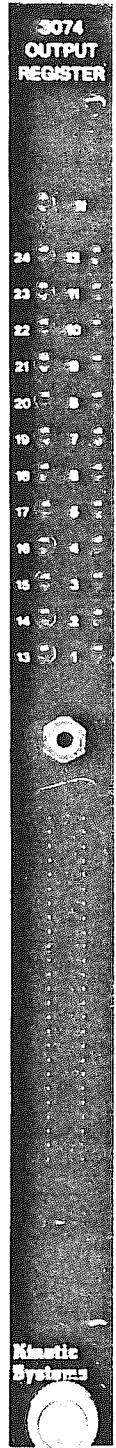
### Models 3074-A1A, E1A (reed relays)

Max. open circuit voltage: 100 volts  
Maximum current: 0.5 amperes  
Maximum switched load: 10 volt-amperes  
Output polarity: Either  
Contact bounce: 3 milliseconds

### Models 3074-A1B, E1B (optical isolators)

Max. open circuit voltage: 30 volts  
Maximum ON current: 10 milliamperes  
ON voltage drop: less than 1 volt  
OFF current: less than 1 microampere  
Output polarity: Collector positive with respect to emitter

(Even-numbered I/O contacts are positive, odd-numbered I/O contacts are negative.)

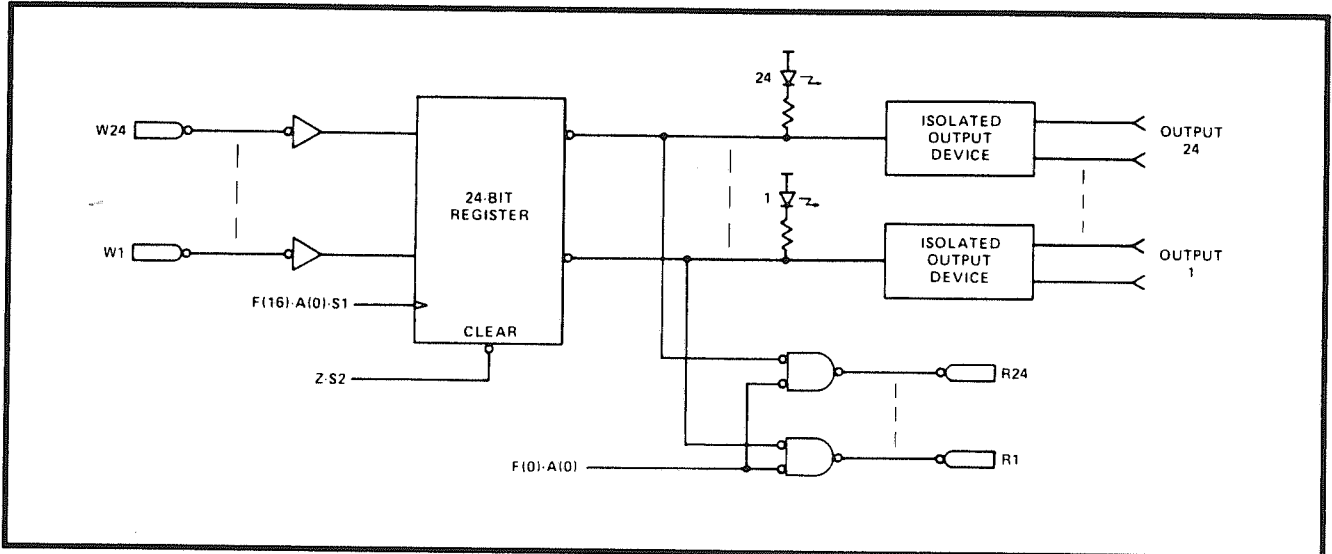


**Output Ratings (continued)**

**Models 3074-A1C, E1C (optically isolated, zero voltage, turn-on ac switches)**

Maximum open circuit voltage: 200 volts  
 Maximum ON current: 0.5 amperes, 47 to 70 hertz  
 Minimum ON current: 0.01 amperes  
 ON voltage drop: less than 1.6 volts

**Simplified Block Diagram**



**Power Requirements**

**Model 3074-A1A, E1A**

+6 volts: 780 mA

**All other options**

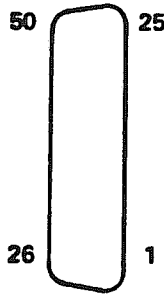
+6 volts: 680 mA

**Ordering Information**

- Model 3074-A1A** Isolated Output Register, 24 bits, with Reed Relays, 50S Amphenol Ribbon connector
- Model 3074-A1B** Isolated Output Register, 24 bits, with Optical Isolated Relays, 50S Ribbon connector
- Model 3074-A1C** Isolated Output Register, 24 bits, with Solid State Relays, 50S Ribbon connector
- Model 3074-E1A** Isolated Output Register, 24 bits, with Reed Relays, 50P "D" connector
- Model 3074-E1B** Isolated Output Register, 24 bits, with Optical Isolated Relays, 50P "D" connector
- Model 3074-E1C** Isolated Output Register, 24 bits, with Solid State Relays, 50P "D" connector

**Related Products**

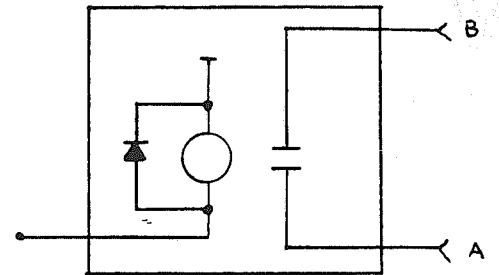
For Model	Mating Connector	Termination Panel
3074-A1A, A1B, A1C	5950-Z1A	1850-A1D
3074-E1A, E1B, E1C	5934-Z1A	1850-E1D



FACE VIEW

Socket/Wire List

50 SOCKET RIBBON CONN.



Isolated Output Device

SOCKET NO.

- 50 \_\_\_\_\_
- 49 BIT #24 (B) \_\_\_\_\_
- 48 BIT #23 (B) \_\_\_\_\_
- 47 BIT #22 (B) \_\_\_\_\_
- 46 BIT #21 (B) \_\_\_\_\_
- 45 BIT #20 (B) \_\_\_\_\_
- 44 BIT #19 (B) \_\_\_\_\_
- 43 BIT #18 (B) \_\_\_\_\_
- 42 BIT #17 (B) \_\_\_\_\_
- 41 BIT #16 (B) \_\_\_\_\_
- 40 BIT #15 (B) \_\_\_\_\_
- 39 BIT #14 (B) \_\_\_\_\_
- 38 BIT #13 (B) \_\_\_\_\_
- 37 BIT #12 (B) \_\_\_\_\_
- 36 BIT #11 (B) \_\_\_\_\_
- 35 BIT #10 (B) \_\_\_\_\_
- 34 BIT #9 (B) \_\_\_\_\_
- 33 BIT #8 (B) \_\_\_\_\_
- 32 BIT #7 (B) \_\_\_\_\_
- 31 BIT #6 (B) \_\_\_\_\_
- 30 BIT #5 (B) \_\_\_\_\_
- 29 BIT #4 (B) \_\_\_\_\_
- 28 BIT #3 (B) \_\_\_\_\_
- 27 BIT #2 (B) \_\_\_\_\_
- 26 BIT #1 (B) \_\_\_\_\_

SOCKET NO.

- 25 \_\_\_\_\_
- 24 BIT #24 (A) \_\_\_\_\_
- 23 BIT #23 (A) \_\_\_\_\_
- 22 BIT #22 (A) \_\_\_\_\_
- 21 BIT #21 (A) \_\_\_\_\_
- 20 BIT #20 (A) \_\_\_\_\_
- 19 BIT #19 (A) \_\_\_\_\_
- 18 BIT #18 (A) \_\_\_\_\_
- 17 BIT #17 (A) \_\_\_\_\_
- 16 BIT #16 (A) \_\_\_\_\_
- 15 BIT #15 (A) \_\_\_\_\_
- 14 BIT #14 (A) \_\_\_\_\_
- 13 BIT #13 (A) \_\_\_\_\_
- 12 BIT #12 (A) \_\_\_\_\_
- 11 BIT #11 (A) \_\_\_\_\_
- 10 BIT #10 (A) \_\_\_\_\_
- 9 BIT #9 (A) \_\_\_\_\_
- 8 BIT #8 (A) \_\_\_\_\_
- 7 BIT #7 (A) \_\_\_\_\_
- 6 BIT #6 (A) \_\_\_\_\_
- 5 BIT #5 (A) \_\_\_\_\_
- 4 BIT #4 (A) \_\_\_\_\_
- 3 BIT #3 (A) \_\_\_\_\_
- 2 BIT #2 (A) \_\_\_\_\_
- 1 BIT #1 (A) \_\_\_\_\_

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2. Obtain a Return Authorization (RA) Number.
3. Initiate a purchase order for the estimated repair charge if the product is out of warranty.
4. Include a description of the problem and your technical contact person with the product.
5. Ship the product prepaid with the RA Number marked on the outside of the package to:

KineticSystems Company, LLC  
Repair Service Center  
900 North State Street  
Lockport, IL 60441

Telephone: (815) 838-0005  
Facsimile: (815) 838-4424  
Email: tech-serv@kscorp.com