

Model 3074-A1C  
24-bit Isolated Output Register

**INSTRUCTION MANUAL**

February, 1987

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# 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

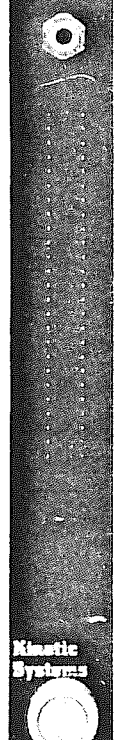
### Models 3074-A1B, E1B (optical isolators)

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.)

3074  
OUTPUT  
REGISTER

24  
23  
22  
21  
20  
19  
18  
17  
16  
15  
14  
13

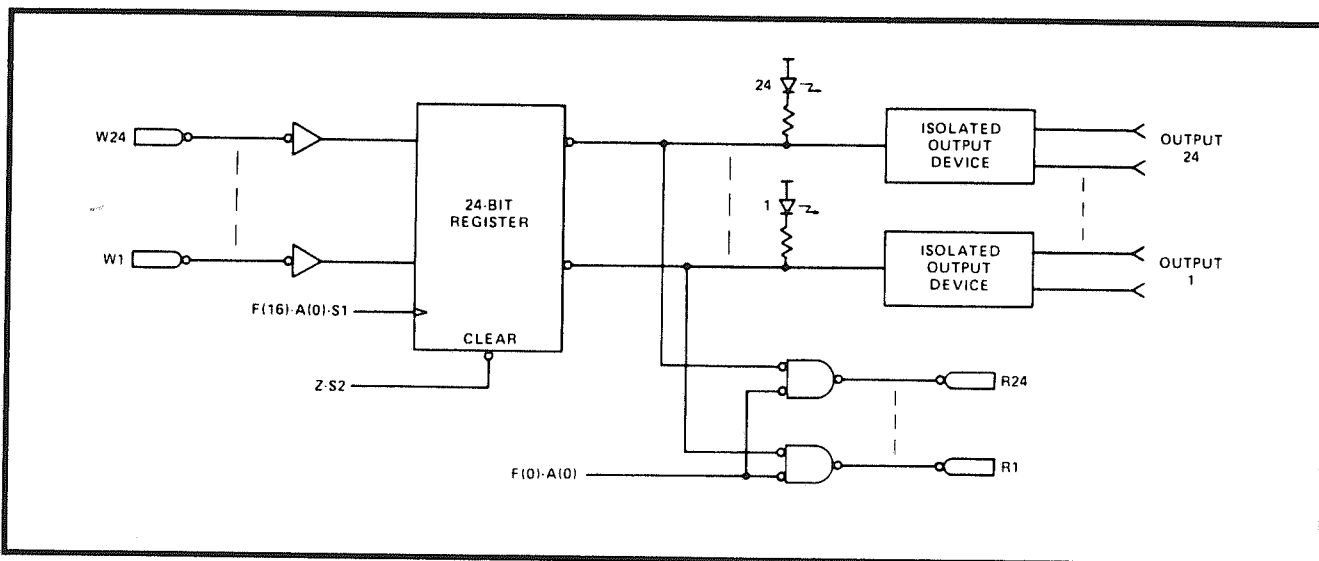


### Output Ratings (continued)

**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

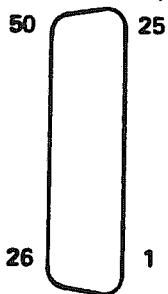
+6 volts: 680 mA

### 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

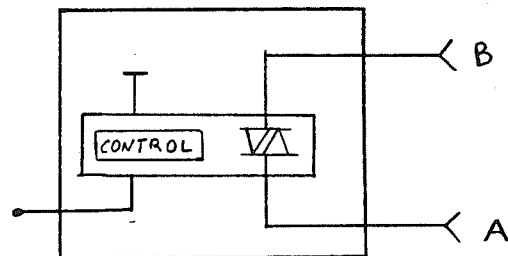
For Model	Mating Connector	Termination Panel
3074-A1A, A1B, A1C	5950-Z1A	1850-A1D
3074-E1A, E1B, E1C	5934-Z1A	1850-E1D



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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