Model 3074-E1B

24-bit Isolated Output Register

INSTRUCTION MANUAL

February, 1987

24-bit Isolated Output Register

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.
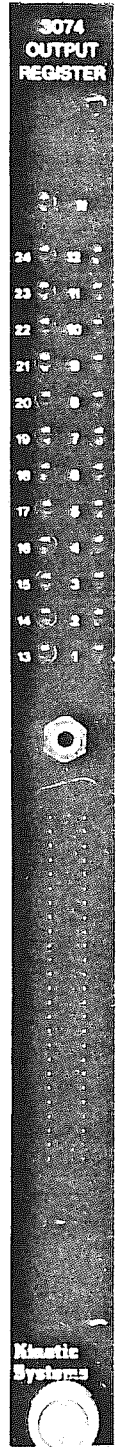
Output Ratings

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.)
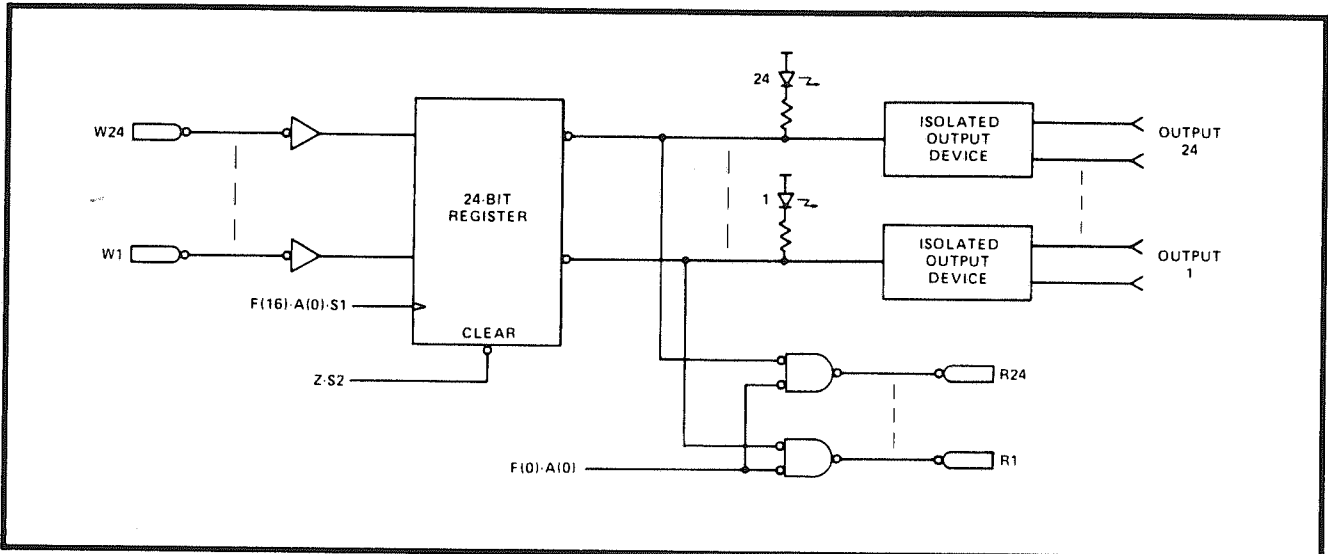
Output Ratings (continued)

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

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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

Model 3074-E1B (Isolated Output)
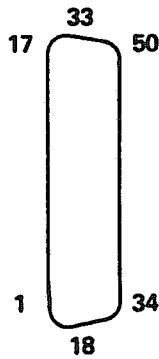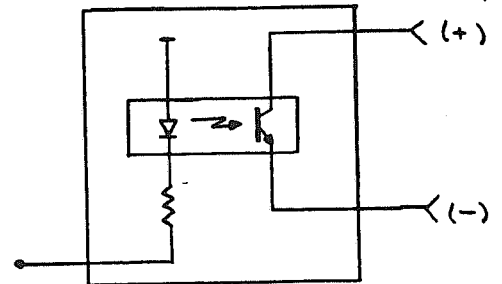
Isolated Output Device

Pin/Wire List

50 PIN 'D'

FACE VIEW

PIN NO.

17	BIT #9	(NEG)
16	BIT #8	(POS)
15	BIT #8	(NEG)
14	BIT #7	(POS)
13	BIT #7	(NEG)
12	BIT #6	(POS)
11	BIT #6	(NEG)
10	BIT #5	(POS)
9	BIT #5	(NEG)
8	BIT #4	(POS)
7	BIT #4	(NEG)
6	BIT #3	(POS)
5	BIT #3	(NEG)
4	BIT #2	(POS)
3	BIT #2	(NEG)
2	BIT #1	(POS)
1	BIT #1	(NEG)

PIN NO.

33	BIT #17	(NEG)
32	BIT #16	(POS)
31	BIT #16	(NEG)
30	BIT #15	(POS)
29	BIT #15	(NEG)
28	BIT #14	(POS)
27	BIT #14	(NEG)
26	BIT #13	(POS)
25	BIT #13	(NEG)
24	BIT #12	(POS)
23	BIT #12	(NEG)
22	BIT #11	(POS)
21	BIT #11	(NEG)
20	BIT #10	(POS)
19	BIT #10	(NEG)
18	BIT #9	(POS)

PIN NO.

50		
49		
48	BIT #24	(POS)
47	BIT #24	(NEG)
46	BIT #23	(POS)
45	BIT #23	(NEG)
44	BIT #22	(POS)
43	BIT #22	(NEG)
42	BIT #21	(POS)
41	BIT #21	(NEG)
40	BIT #20	(POS)
39	BIT #20	(NEG)
38	BIT #19	(POS)
37	BIT #19	(NEG)
36	BIT #18	(POS)
35	BIT #18	(NEG)
34	BIT #17	(POS)

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900 North State Street
Lockport, IL 60441

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