Model 3095

24-bit Discrete Output

INSTRUCTION MANUAL

August, 1990

SPECIAL OPTION

Model 3095-S001

24-bit Discrete Output

March, 1988

SPECIAL OPTION

The module 3095-S001 is the same as the module 3095-E1A except that the front panel connector is changed to a 50-contact socket "D" type.

MLH:rem(3000 Ser. 13)
March 25, 1988

SPECIAL OPTION

Model 3095-S002

24-bit Discrete Output

March, 1988

SPECIAL OPTION

The module 3095-S002 is the same as the module 3095-E1B except that the front panel connector is changed to a 50-contact socket "D" type.

MLH:rem(3000 Ser. 13)
March 25, 1988

SPECIAL OPTION

Model 3095-S003

24-bit Descrete Output

March, 1988

SPECIAL OPTION

The module 3095-S003 is the same as the module 3095-E1C except that the front panel connector is changed to a 50-contact socket "D" type.

MLH:rem(3000 Ser. 13)
March 25, 1988

CONTENTS

24-bit Discrete Output

Available with relay, optical-isolator or open-collector outputs **3095**

Features

- **24 bits of discrete output in a single-width module**
- **Options available for relay output, optical isolator output, and open collector output**
- **Rank 1/Rank 2 registers for simultaneous update of outputs on more than one module**

Typical Applications

- **General-purpose digital interface**
- **Remote control applications**

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

The 3095 Discrete Output module provides an interface between the CAMAC Dataway and discrete devices, allowing the computer to control lights, buzzers, and other such on/off devices. It is a single-width module containing 24 output channels. This module contains Rank1/Rank2 registers for the simultaneous update of outputs on more than one module for simulation-type systems. Output options are available as follows:

Model	Type	Description
3095-x1A	RDO	Reed relay output (isolated contacts)
3095-x1B	IDO	Optical isolator output (isolated)
3095-x1C	LDO	Open collector output (ground referenced)

All outputs are brought to the front panel via either a 50-pin "D" connector or a 50-contact ribbon connector.

Operation

Data is written into the Rank 1 register via an F(16)·A(0) command. The Mode register determines the method for transferring data from the Rank 1 register to the Rank 2 register (and thence to the output devices). Rank 1 data is copied to the Rank 2 register via either a one microsecond external pulse on the P1 or P2 Dataway line (see Mode Table) or by the F(25)·A(0) command (regardless of the mode setting).

Mode Table

Mode	External Control of Rank 1/Rank 2 Register
0 to 3	Disable
4	P1 or P2 Pulse
5	P2 Pulse
6	P1 Pulse
7	P2 Pulse, followed by P1 Pulse

Function Codes

Command		Q	Action
F(16)·A(0)	WT1	1	Writes the Rank 1 Output register.
F(17)·A(0)	WT2	1	Writes the External Mode Control register.
F(25)·A(0)	XEQ	1	Executes a Rank 1 to Rank 2 data transfer on all channels.
Note: X = 1 for all valid addressed commands.			

3095 (*continued*)

Specifications (for each channel)

Relay Output (RDO)

Open circuit voltage:	100 volts (max)
ON current:	0.5 amperes (max)
Switched load:	10 volt-amperes (max)
Contact bounce:	3 milliseconds (max)

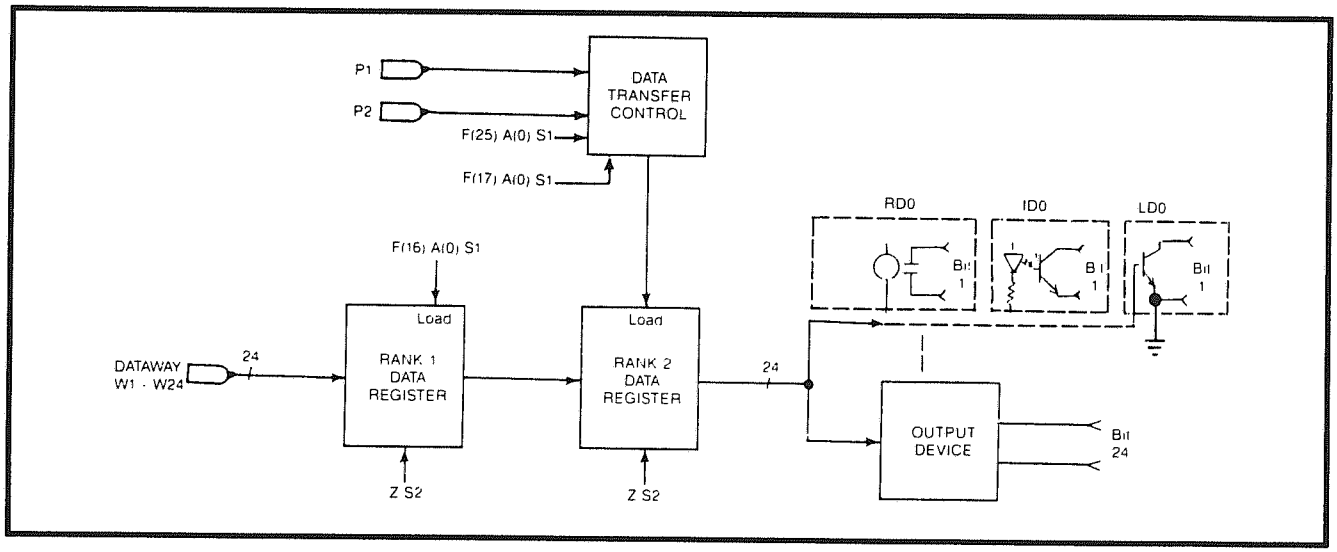
Optically Isolated Output (IDO)

Open circuit voltage:	30 volts (max)
ON current:	10 milliamperes (max)
ON voltage drop:	1 volt (max)
OFF current:	1 microampere (max)
Output polarity:	Collector positive with respect to emitter.

Open Collector Output (LDO)

Open circuit voltage:	30 volts (max)
ON current:	250 milliamperes (max)

Simplified Block Diagram



Power Requirements

+6 volts:	400 mA
+24 volts:	150 mA

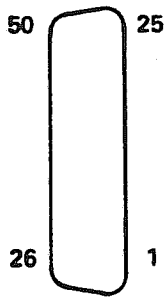
Ordering Information

Model 3095-A1A	Discrete Output, 24 bits, relay contacts, 50S Amphenol Ribbon connector
Model 3095-A1B	Discrete Output, 24 bits, optical isolators, 50S Amphenol Ribbon connector
Model 3095-A1C	Discrete Output, 24 bits, open collectors, 50S Amphenol Ribbon connector
Model 3095-E1A	Discrete Output, 24 bits, relay contacts, 50P "D" connector
Model 3095-E1B	Discrete Output, 24 bits, optical isolators, 50P "D" connector
Model 3095-E1C	Discrete Output, 24 bits, open collectors, 50P "D" connector

Related Products

Model 1850-A1D	Termination Panel (Ribbon type)
Model 5950-Z1A	Mating Connector (Ribbon type)
Model 5934-Z1A	Mating Connector ("D" type)

Model 3095-A1X

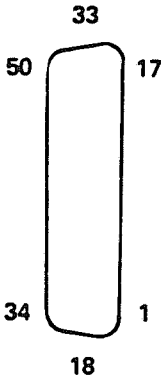


FACE VIEW

Socket/Wire List

50 SOCKET RIBBON CONN.

SOCKET NO.		SOCKET NO.	
50	GROUND	25	GROUND
49	CHANNEL 24 SIGNAL	24	CHANNEL 24 RETURN
48	CHANNEL 23 SIGNAL	23	CHANNEL 23 RETURN
47	CHANNEL 22 SIGNAL	22	CHANNEL 22 RETURN
46	CHANNEL 21 SIGNAL	21	CHANNEL 21 RETURN
45	CHANNEL 20 SIGNAL	20	CHANNEL 20 RETURN
44	CHANNEL 19 SIGNAL	19	CHANNEL 19 RETURN
43	CHANNEL 18 SIGNAL	18	CHANNEL 18 RETURN
42	CHANNEL 17 SIGNAL	17	CHANNEL 17 RETURN
41	CHANNEL 16 SIGNAL	16	CHANNEL 16 RETURN
40	CHANNEL 15 SIGNAL	15	CHANNEL 15 RETURN
39	CHANNEL 14 SIGNAL	14	CHANNEL 14 RETURN
38	CHANNEL 13 SIGNAL	13	CHANNEL 13 RETURN
37	CHANNEL 12 SIGNAL	12	CHANNEL 12 RETURN
36	CHANNEL 11 SIGNAL	11	CHANNEL 11 RETURN
35	CHANNEL 10 SIGNAL	10	CHANNEL 10 RETURN
34	CHANNEL 9 SIGNAL	9	CHANNEL 9 RETURN
33	CHANNEL 8 SIGNAL	8	CHANNEL 8 RETURN
32	CHANNEL 7 SIGNAL	7	CHANNEL 7 RETURN
31	CHANNEL 6 SIGNAL	6	CHANNEL 6 RETURN
30	CHANNEL 5 SIGNAL	5	CHANNEL 5 RETURN
29	CHANNEL 4 SIGNAL	4	CHANNEL 4 RETURN
28	CHANNEL 3 SIGNAL	3	CHANNEL 3 RETURN
27	CHANNEL 2 SIGNAL	2	CHANNEL 2 RETURN
26	CHANNEL 1 SIGNAL	1	CHANNEL 1 RETURN



FACE VIEW

Socket/Wire List

50 SOCKET 'D'

PIN NO.		PIN NO.		PIN NO.	
50	DIGITAL GROUND	33	CHANNEL 16 SIGNAL	17	DIGITAL GROUND
49	CHANNEL 24 SIGNAL	32	CHANNEL 16 RETURN	16	CHANNEL 8 SIGNAL
48	CHANNEL 24 RETURN	31	CHANNEL 15 SIGNAL	15	CHANNEL 8 RETURN
47	CHANNEL 23 SIGNAL	30	CHANNEL 15 RETURN	14	CHANNEL 7 SIGNAL
46	CHANNEL 23 RETURN	29	CHANNEL 14 SIGNAL	13	CHANNEL 7 RETURN
45	CHANNEL 22 SIGNAL	28	CHANNEL 14 RETURN	12	CHANNEL 6 SIGNAL
44	CHANNEL 22 RETURN	27	CHANNEL 13 SIGNAL	11	CHANNEL 6 RETURN
43	CHANNEL 21 SIGNAL	26	CHANNEL 13 RETURN	10	CHANNEL 5 SIGNAL
42	CHANNEL 21 RETURN	25	CHANNEL 12 SIGNAL	9	CHANNEL 5 RETURN
41	CHANNEL 20 SIGNAL	24	CHANNEL 12 RETURN	8	CHANNEL 4 SIGNAL
40	CHANNEL 20 RETURN	23	CHANNEL 11 SIGNAL	7	CHANNEL 4 RETURN
39	CHANNEL 19 SIGNAL	22	CHANNEL 11 RETURN	6	CHANNEL 3 SIGNAL
38	CHANNEL 19 RETURN	21	CHANNEL 10 SIGNAL	5	CHANNEL 3 RETURN
37	CHANNEL 18 SIGNAL	20	CHANNEL 10 RETURN	4	CHANNEL 2 SIGNAL
36	CHANNEL 18 RETURN	19	CHANNEL 9 SIGNAL	3	CHANNEL 2 RETURN
35	CHANNEL 17 SIGNAL	18	CHANNEL 9 RETURN	2	CHANNEL 1 SIGNAL
34	CHANNEL 17 RETURN			1	CHANNEL 1 RETURN