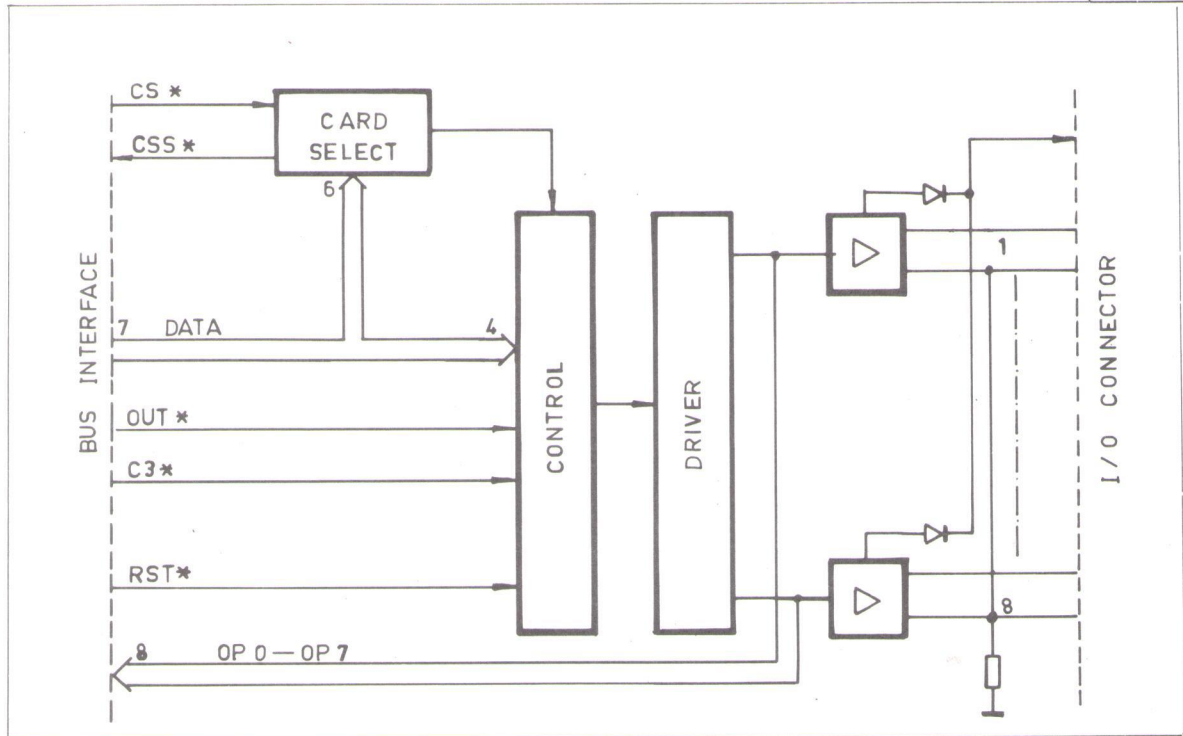




DESCRIPTION

4009 transistor output module provides high-current sink capacity for control of magnetic valves, relays etc.

It comprises 8 buffered signal outputs with power transistor drivers. External power supply to the drivers is recommended. Each output circuit contains a diode that protects the output driver transistors against high-voltage transients when switching inductive loads. The return line of each output is connected to system common via a common resistor to protect the computer system against ground-loop currents from the field.

The signals are controlled individually. The command includes both the address and state of the signal to be operated. Separate command provides reset of all outputs. The module is entirely program compatible with module 4007.

Provision for driving other I/O-interfaces is made. The module provides secondary channel selection to simultaneously select other I/O-modules.

A code strip is mounted on the I/O-connector to protect the module from being plugged with the wrong end into the backplane. The code strip conforms to DIN 41612. It permits the user to code I/O-cables to be keyed for right cards.



SPECIFICATIONS

Power Supply	+ 5 V $\pm$ 5 %, 60 mA
Signal Output	Open collector Load voltage: 50 V max Current: 1 A max Power dissipation: max 1,5 W/output.
Bus connection	I/O-side of the 4680-bus. TTL-stage of the signal 1 - 8 is connected to OP0-OP7 respectively of the 4680-bus.
Connectors	B 64 pin two-row Europe-connector (DIN 41612) on both the I/O-and bus-side.
Size	Standard Europe-card, 100 x 160 mm.
Bus Pin Numbering	See System Manual. Note. The bus-connection includes the signal CSS* (secondary channel selection) and OP0 - OP7.

I/O PIN NUMBERING

Signal	1	2	3	4	5	6	7	8
(+) "active" Pin	1A,1B	5A,5B	9A,9B	13A,13B	17A,17B	21A,21B	25A,25B	29A,29B
(-) return Pin	3A,3B	7A,7B	11A,11B	15A,15B	19A,19B	23A,23B	27A,27B	31A,31B

Connect the external power supply as follows: (+) to pins 32A,32B
0V " " 31A,31B

I/O-COMMANDS

Out Data	Controls an individual signal by its address and state D0 - D2 = Binary address of the signal to be operated. D7 = 0 = OFF-state D7 = 1 = ON -state
Out C3	Reset all signal outputs.

Card Selection

The card is identified at channel selection, done with the command OUT CS, with a code plug located in position 1G.

Note. Since the option intersignalling lines OP0-OP5 is provided, 4009 may not be inserted in the slot for the floppy-interface when DMA is used, unless these lines are cut. See also diagram of the backpanel in the System Manual.

