NMIS-7011 8CH SSR AC CNTRL CARD

The NMIS-7011 8-Channel Solid State Relay AC Control Card, in 2x4"s™ format, provides a JEDSTACK™ computer system with control of 8 AC lines.

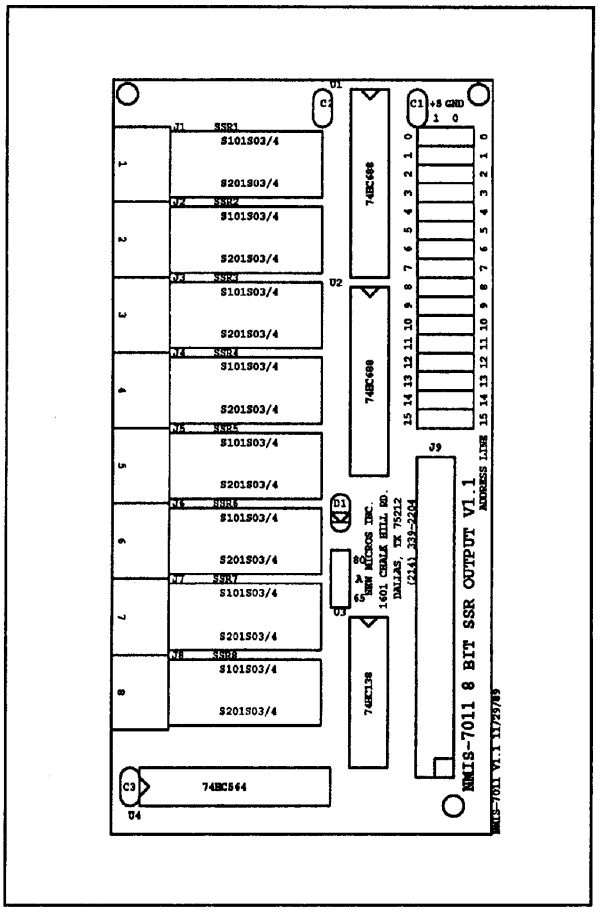
FEATURES

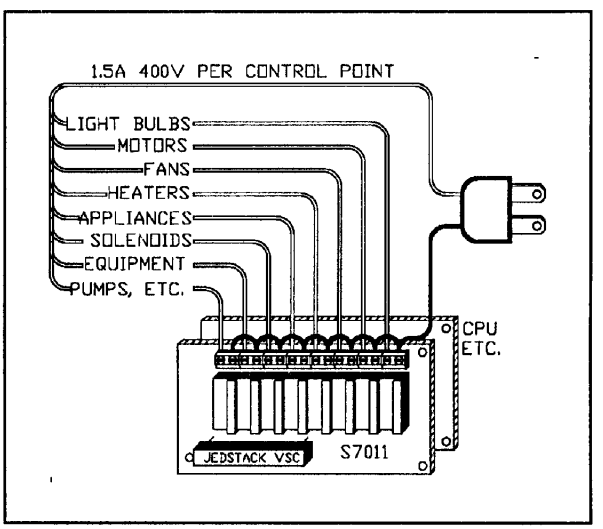
- UL recognized, CSA and TUV approved relays
- 8 AC Solid State Relays in ultra compact design
- 4000Vrms isolation input-to-output
- 1.5A 400VAC minimum current/voltage ratings
- Zero crossing, or non-zero crossing, versions available
- Relays socketed for easy replacement and testing
- Screw Terminal for easy wire connections
- Latched outputs

The outputs are arranged to be easily connected to individual wires by 8 dual-screw connectors, Connectors J1 through J8. Pins on the connectors are attached to individual output control points of the eight S101S03's (or S101S04's), Solid State Relays (SSR). An 8-bit inverting latch sets the output states controlling the SSR's.

The S101S01 Series Solid State Relays are extremely compact SSR's that form the heart of the function of the NMIS-7011. These SSR's come in a compact single-in-line package. They have four pins: two AC output pins, and positive and negative signal input pins. They allow control of up to 1.5 Amps (Arms). The SSR designs give isolation voltage ratings between input and output of 4000Vrms. They come in two high-voltage ratings. They are UL recognized file No. E94758:S101S01 Series, CSA approved No. 63705:S101S01 Series and TUV approved No. R75165:S201S01.

A Vertical Stacking Connector in the lower right hand corner (top view) provides connections to the processor's address and data bus, control signals, 5V power and ground. Address decoding of the latch's space in memory is accomplished by two octal comparators and 16 two-position jumpers. Each jumper setting corresponds to the state of a particular address line. The NMIS-7011 occupies a single address location. Any byte location in the 64K address space of the JEDSTACK™ processor's bus can be selected by correct jumper placement.





Application

NMIS-7011 8CH SSR AC CNTRL CARD 2x4"s

DESCRIPTION

The following four types of SSR's are recommended for use with the board: the S101S03, the S101S04, the S201S03 and the S201S04. They have series limiting resistors built in internally. This is necessary for operation in the NMIS-7011 circuit, as no limiting resistors are provided on the board. The S101S03 is recommended for operating circuits up to 400V 1.5A without zero crossing. The S101S04 is recommended for operating circuits up to 400V 1.5A with zero crossing. The S201S03 is recommended for operating circuits up to 600V 1.5A without zero crossing. The S201S04 is recommended for operating circuits up to 600V 1.5A with zero crossing.

The S101S03 and S201S03 are non-zero crossing models with high resistance to surge current of 71 Amps (Isurge). All other versions are rated at 30 Amps (Isurge). The S101S04 and S201S04 have built-in zero cross detection circuitry. The S101S01 Series withstands repetitive off-state voltages of 400V. The S201S01 Series withstands repetitive off-state voltages of 600V.

The NMIS-7011 8-Channel Solid State Relay AC Control Card is designed to stack on the 2x4"s™ NMIS Series, the "100 Squared"™ NMIX, and the "Generic Target Computer"™ NMIT Series (with the Vertical Stacking Connector added to the latter) of single board computers. The "JEDSTACK"™ provides interface signals to the board including address lines, data lines, control lines and 5V power and ground. The fast HC devices allow access times approaching 90nS.

The Solid State Relays are controlled by an octal inverting latch. The addressing of the octal inverting latch on the NMIS-7011 is sensed by two octal comparators that decode the 16 address lines (A15 - A3) and one control line in order to select only one active location out of a 64K address space.

Unlike many other NMIS series boards, the NMIS-7011 is a write-only board, without any read back. This gives a unique opportunity to the system designer. It may actually be desirable to overmap the NMIS-7011 on top of a RAM location. If this is the case, a write of the RAM will also set the port to the value stored. The system designer could select a location for a byte-sized variable that contained the port settings, and set the port to the same address. When new settings are written to RAM, the port is written at the same time. The last value written can be "read back", albeit from the RAM rather than the port itself. This eliminates the need to define two address constants per port, one for the variable and one for the port. (D1 must be removed for this option to work correctly.)

ADDRESS	Bit # 7	Bit # 6	Bit # 5	Bit # 4	Bit # 3	Bit # 2	Bit # 1	Bit # 0
XXXX	SSR 8	SSR 7	SSR 6	SSR 5	SSR 4	SSR 3	SSR 2	SSR 1

Register Summary

WORLD HEADQUAR-WORLDWIDE REP

AMERICA (N, C & S)	CENTRAL EUROPE	SOUTHERN EUROPE	SCANDINAVIA	ASIA	RUSSIA
NEW MICROS, INC. Sales Department 1601 Chalk Hill Road Dallas, TX 75212, USA Phone: (214) 339-2204 Fax: (214) 339-1585 G3, G2, FMG1 User Bulletin Board: (214) 339-2321 24/12, N, 8, 1	MS Microscan Vertriebs GmbH Ueberseering 23 2000 Hamburg 60 GERMANY Phone: 040/632 32 14 Fax: 040/632 37 10	DEMEL G. Demel Handelsges, m.b.H. Hoffmeistergasse 8-10/1/4, A-1120 Vienna, AUSTRIA Phone: (0043) 0222 813 2507-0 Fax: (0043) 0222 85 95 93 Telex: 7531851	FIELD OY ELECTRONIIKKARYHMA P O Box 131 SF 00601 Helsinki, FINLAND Phone: 358 0 757 1011 Fax: 358 079 8853 Telex: 12-2022 FIELD SF	CIBI TRADING INT'L 20 Matimtiman Street Teacher's Village, Diliman Quezon City, PHILIPPINES Phone: (632) 922-2988 Fax: (632) 921-8027	TECHNOFORTH 59, Bolshoi Pr., P.S., Leningrad, 197101,USSR Phone: (812) 233-86-21 (812) 233-34-10 Fax: (812) 233-86-21

NEW MICROS, INC.
1601 Chalk Hill Road
Dallas, Texas 75212
Tel: (214)-339-2204