MEM-32

32-Point Electromechanical Relay Board for the MetraBus

Features

- 32 Form A (SPST) relays
- 7 amp contact ratings @ 30 Vdc or 240 Vac
- Detachable screw terminals simplify field wiring
- Data readback for security
- Power-on & reset into OFF condition
- 1500 Vac isolation
- Up to 512 relays per PC slot
- LED channel status indicators
- Includes powerful *Insta*Cal configuration and test software application.

Functional Description

The MEM-32 is a 32-channel, Form A (SPST) electromechanical relay board used with the MetraBus industrial data acquisition and control system. The MEM-32 relays offer 7 amp contact ratings at 30 Vdc and 120 Vac and 5 amp ratings at up to 240 Vac. These high ratings allow the MEM-32 to control all but the largest loads and motor starters. The low 70 milliohm contact ratings also ensure that the MEM-32 is suitable for low-evel data switching applications. Isolation of 1500 Vac between the field wiring and your computer ensure that your computer system is protected even in the harshest electrical environments.

The MEM-32 board uses four consecutive addresses on the MetraBus. This allows a single MetraBus driver board to control up to 16 MEM-32 boards or up to 512 independent relays. The MEM-32 board is divided into four, 8-bit ports. Writing to one of the ports loads data into the output latches and to the relays themselves. Reading data back from a port returns the data currently in the output latch without changing it. This feature allows the user to verify that data on the outputs was received correctly Each relay on the MEM-32 has a visual enunciator LED permitting easy verification of the relay's state. On power-up or after a MetraBus CLEAR, all relays return to their INACTIVE (off) state.

Common applications of the MEM-32 include control of pumps and compressors, motor control, energy and HVAC management, alarm activation, temperature (heater/cooler) control as well as numerous other control functions that require high-current switching capability.

Detachable screw terminals on the MEM-32 simplify field wiring, and accept standard 12-22 AWG wire sizes. The MEM-32 is compatible with all MetraBus mounting and installation chassis and hardware, making it easy to install the boards in NEMA chassis, in 19-inch racks, on DIN rails, or on any flat surface.

MetraBus programming is very easy. You may write direct register I/O programs, take advantage of the Universal Library, or use SoftWIRE, DAS Wizard or any of a wide variety of compatible software packages.

Specifications

Relay Specifications

Number of relays	32
Contact Configuration	Form A, SPST
Contact Rating (resistive)	7A @ 30 Vdc, 10 A @ 125 Vac, 7A @ 240 VAC
Contact Resistance	70 milliohms typ.
Isolation	
Between contacts	750 Vac, 50/60 Hz
Between coil & contacts	1500 Vac, 50/60 Hz
Operate Time	10 milliseconds max.
Release Time	5 milliseconds max.
Shock	10G (11 milliseconds)
Life Expectancy	10^7 min. at rated load

Connectors

Module I/O Connector type	Detachable screw terminal
Voltage Rating	300 V max.
Wire sizes	12-22AWG

Power Consumption

+5V (all relays off)	350 mA typical, 425 mA max.
+5V (all relays on)	2.10 A typical, 2.45 A max.
±15 V	not used

Environmental

Operating Temperature:	0 to 70°C
Storage Temperature:	-40 to 100° C
Humidity	0 to 90% non-condensing

Physical

Size:	16 x 4.8 inches (40.64 x 12.192 cm)

Ordering Guide

MEM-32   32-point electromechanical relay board for the MetraBus