

MIO-32

32-Bit Isolated Digital Output Board for the MetraBus



Functional Description

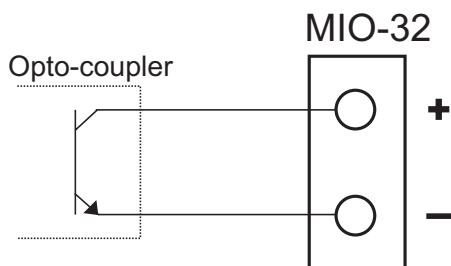
The MIO-32 is a 32-channel isolated digital output board. With output drive currents up to 50 mA, supplies enough drive current to directly control solid state I/O modules and many types of relay. The MIO-32 is also compatible with standard CMOS/TTL logic.

The MIO-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 outputs. The board is divided into four, 8-bit ports. Writing to one of the ports loads data into the outputs. 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

Common applications of the MIO-32 include controlling alarm annunciators, relays, solid-state I/O modules as well as writing digital data to a wide variety of external electronic systems.

Detachable screw terminals on the MIO-32 simplify field wiring, and accept standard 12-22 AWG wire sizes. The MIO-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.



MIO-32 Output Configuration

Features

- 32 Logic level, open collector digital outputs
- 500 Vac isolation
- Detachable screw terminals simplify field wiring
- Low Cost
- Controls up to 512 outputs per PC slot
- Can be installed up to 100 feet from host computer
- Includes powerful *InstaCal* configuration and test software application.

Specifications

Digital Outputs

Number of outputs	32 in 4 banks of 8
Output configuration	Open collector
Output device type	ILQ2X009 quad optocoupler
Collector current (On)	50 mA max.
Collector current (Off)	1 μ A maximum

Collector - emitter specifications

Output voltage	20 V max.
Saturation Voltage	0.25 V typ., 0.4V max. ($I_{ce} = 1$ mA, $I_b = 20\mu$ A)
Reverse voltage	70 V max.

Isolation resistance	10^{12} ohms ($V = 500$ V, $T_a = 25^\circ$ C)
Isolation voltage	500 Vdc continuous

Connectors

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

Power Consumption

+5 V (all 4 banks at all zero's)	290 mA typical, 350 mA max.
+5 V (all 4 banks at all one's)	630 mA typical, 700 mA max.
± 15 V	not used

Environmental

Operating temperature:	0 to 70°C
Storage temperature:	-40 to 100°C
Humidity	0 to 90% noncondensing

Physical

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

MIO-32 32-Bit isolated digital output board for the MetraBus