

Programmable Instrumentation Multiplexer

The Programmable Instrumentation Multiplexer has been designed to provide a cost effective means of combining the output from multiple sensors, and sending the data in a single data stream. The PIM card is programmed to accept eight analogue inputs (0-5 Volt), sixteen digital inputs (on/off), sixteen digital outputs (on/off) and two serial channels.

The unit reads each of the 0 to 5 Volt analogue signals and converts them to a digital format in the range 0 to 1023.

The sixteen input channels are monitored and a number generated which represents the off/on state of the inputs.

The digital data is combined with the serial input data stream. This data stream is then transmitted to a host computer, using the onboard RS232 communication port or optional RS 422 and Ethernet outputs.



A second communication port is provided which can read the output of serial sensors.

By using a terminal or computer the sixteen digital output lines can be controlled, and made to switch auxiliary equipment off or on.

By using a single serial data stream to read and control multiple sensors, the PIM is ideal for use with radio modems, satellite modems or mobile phone modems for remote data collection. The PIM can also reduce the wires required to send sensor data this reduces the cost of cables and connectors.

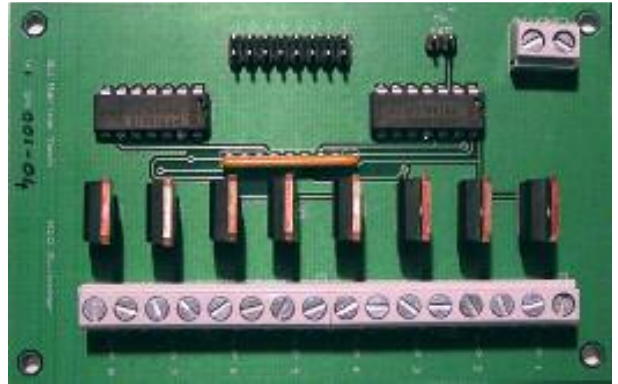
The PIM has an onboard multiprocessor, which allows the PIM to be programmed to carry out defined tasks or tasks which are conditional of the readings taken. The PIM has previously been used for ROV instrumentation and control, underwater camera and lighting controller, and submarine model pitch roll and heading sensors.

Applications could include computer control of remote sensors, remote environmental monitoring, scientific instrumentation monitoring.

For specialised applications the unit can be programmed to the customer's requirements using Pascal, C, Basic or assembler.

The Switcher card has been designed to compliment the Programmable Instrumentation Multiplexer in switching high power DC loads such as cameras, camera lights, spotlights, actuators etc.

The switcher card is the same size as the PIM. To minimize space the cards can be stacked. Each Switcher card can switch eight loads with a supply voltage of up to 50 Volts DC. and a power requirement of 10 Watts. Higher power outputs can be switched if heat sinks are fitted or the FETs are remotely mounted on heat sinks.



The PIM card can control multiple switcher cards.

The PIM and switcher cards measure 100mm by 64mm making them ideal for fitting into Eurocard instrument cases.



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BJ Marine Tech Ltd. reserves the right to change or modify the specifications without notice.