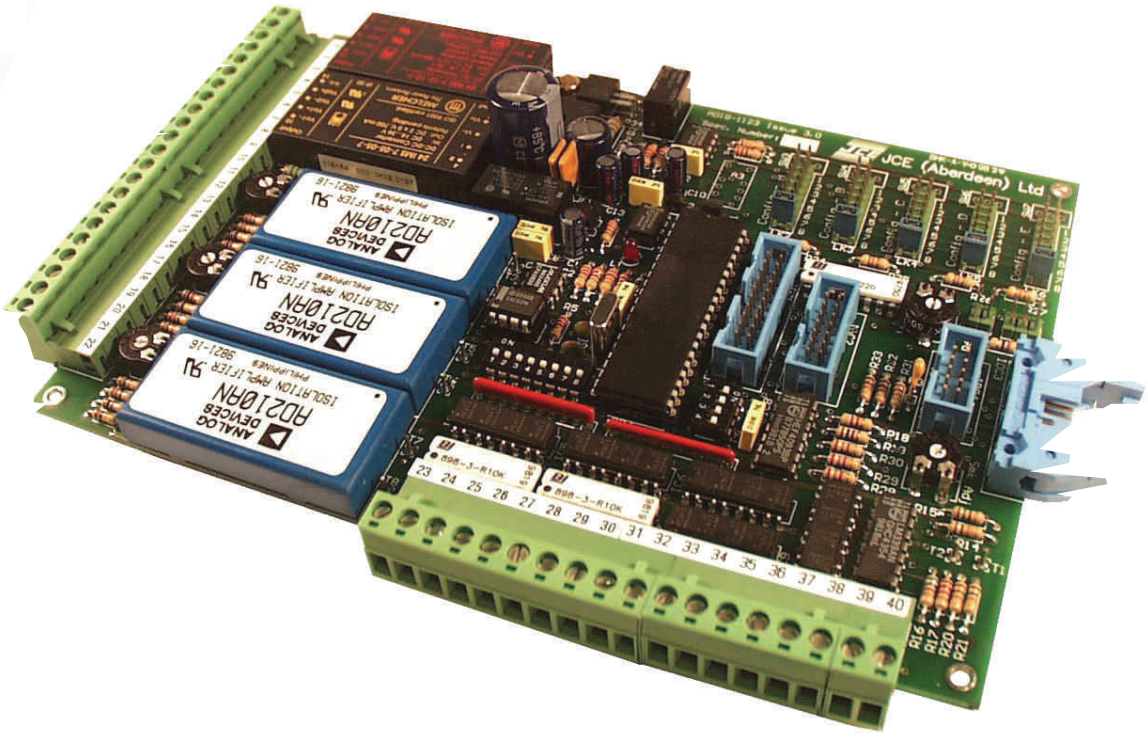
ADIB-1123
Analogue and Digital Interface Board



The ADIB is a versatile microprocessor based signal monitoring and interface PCB. The combination of its peripheral interface electronics and a powerful RISC based microprocessor, allow this PCB to become the heart of many complex control systems. Three highly specified analogue input channels allow any 4-20mA process variable to be accurately monitored, and with up to 15 digital input channels the ADIB can gain a comprehensive view of its environment.

Programming
Software design is achieved through the use of a PC based integrated development and simulation environment. The language used is a derivative of ANSI standard 'C', which allows a great deal of flexibility.

Communications
RS485 serial communications capabilities on board the ADIB allow it to be an interactive part of a larger system constructed using other ADIB's, or any other PCB in the range (PLB, INDB, etc).

Analogue Inputs
There are three analogue channels on the ADIB. Each is galvanically isolated from the field wiring using an AD210 amplifier. This allows highly stable and accurate monitoring of any analogue process variable (4-20mA, mV, etc).

Digital Inputs
15 optically isolated digital inputs are available for monitoring two-state variables. (Note: for each analogue channel used, one digital channel is disabled)

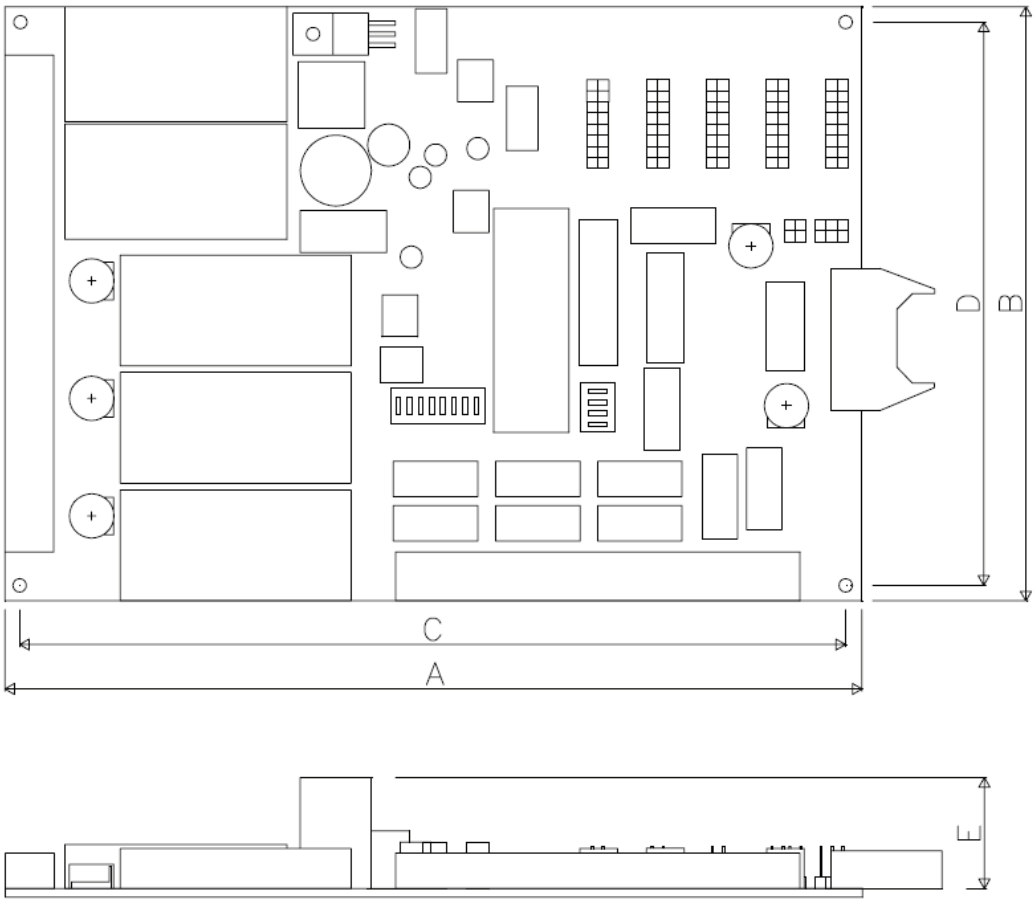
LCD / VFD User Interface
An extremely efficient user interface can be created through the use of a Liquid Crystal Display (LCD) or a Vacuum Fluorescent Display (VFD), either of which can be plugged directly into the ADIB.

EEPROM
The ADIB has a built in EEPROM, which provides a non-volatile memory for storage of user configurations, or dynamically calculated process control data.

Power Supply
The ADIB operates on supply voltages from 8.4 to 36 Volts (see Specification section for details). Special attention has been paid to the provision of power supply circuits fully capable of dealing with an electrically hostile industrial environment. High quality switching DC/DC converters isolate the sensitive instrumentation electronics from the field supply.

Link Pins
The ADIB has provision for 5 banks of link pins which can be used for convenient 'installer configurable' option adjustment.

Dimensions



Dimension	A	B	C	D	E
mm	194	134	186	126	26

Note 1: Field wiring connectors not shown
Note 2: PCB thickness 1.6mm
Note 3: Mounting hole diameter 3.5mm

Specification

Nominal Supply Voltage:	24 Volts AC or DC
Tolerance: [1]	14 to 36 Volts DC or 16 to 25 Volts AC
Max. Power Consumption:	20 Watts
Typical with VFD:	10 Watts
Typical without VFD:	6 Watts
Max. Operational Ambient Temp: [2]	50 Degrees centigrade
Min. Operational Ambient Temp: [2]	0 Degrees centigrade
Digital Input Signaling Voltage:	24 Volts +/-10%
Communications Standard:	Half duplex RS485
VFD Interface Port:	Designed for “FUTABA M204SD01AA 20 Char by 4 Line” or pin compatible device.
LCD Interface Port:	Designed for “HITACHI LM032XMBL 20 Char by 2 Line” or pin compatible device.
Max. Clock Frequency:	20 Mhz
Typical:	3.579545 Mhz
Programming Language:	Derivative of ANSI ‘C’

1 8.4 VDC minimum input voltage specification available on specially modified ADIB. Contact technical support for details.
2 Extended Temperature range PCBs available on request.

JCE Digital Ltd, Blackburn Buissiness Park, Aberdeen, AB21 0PS
Tel: +44 (0) 1224 798600 Fax: +44 (0) 1224 798601
Email: info.digital@jcegroup.com