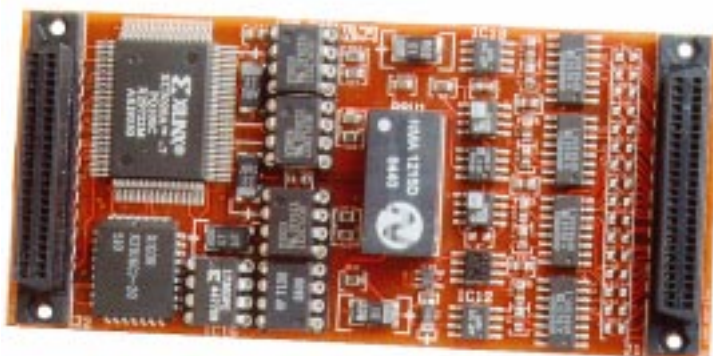


# IP-ADC

## Opto - isolated Analogue Input

- 16 Differential / single ended analogue inputs
- 12 bit precision
- Gain and offset correction giving better than  $\pm 1$  l.s.b. accuracy
- Less than  $11\mu\text{S}$  conversion time
- Less than  $8\mu\text{S}$  channel switch time
- 0-20mA Current loop integrated support
- 0-5, 0-10 Volt high impedance input options
- Galvanic isolation to 600 Volts
- Factory gain and offset correction values for each channel held in EEPROM
- Conforms to IndustryPack™ Logic Specification Rev 0.7.1
- Extended environmental specification available
- Full OS-9 driver support including calibration and sampling options

The IP-ADC is a cost effective IndustryPack™ compatible module providing sixteen analogue input channels which can be either differential or single ended. By careful design the component count in the front end has been kept low ensuring a minimum of induced noise and very low temperature drift.



The IP-ADC uses the AD7891 12 bit converter from Analogue Devices. This is fed by a sixteen channel multiplexor and instrumentation amplifier. The  $11\mu\text{S}$  conversion time allows sustained conversion rates of over 90kHz on a single channel. The on-board precision voltage reference has very low drift characteristics ensuring continued accuracy over a broad range of operating environments. This reference can also be fed back to one of the input channels to provide a temperature compensation facility. Versions of the IP-ADC are available providing inputs of 0-5, 0-10 Volt or 0-20 mA.

A comprehensive driver for OS-9 is available providing field calibration facilities and also the option of data sampling to minimise noise effects in difficult environments.

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