

CASE STUDY

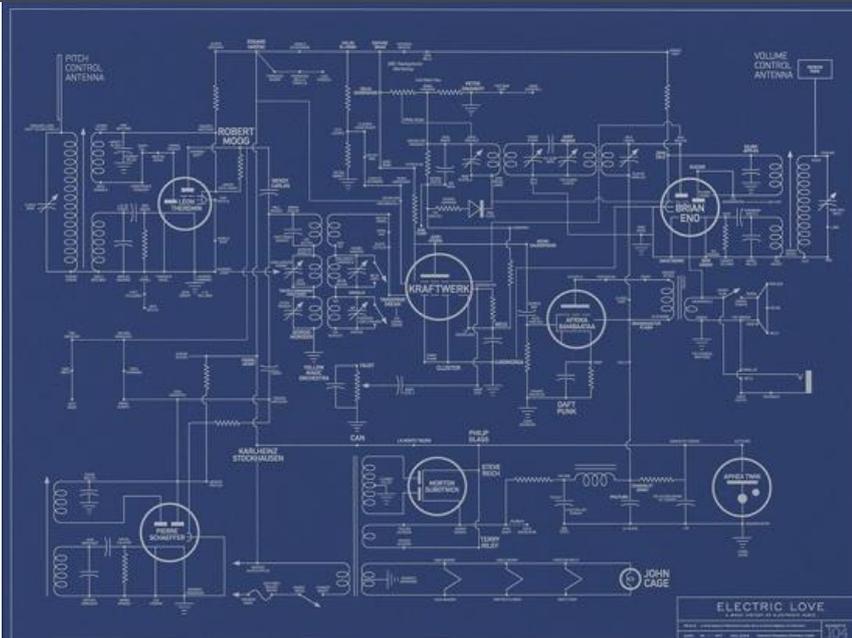
VERSATILE PROGRAMMABLE AMPLIFIERS

I.C.E. designs and manufactures thousands of programmable amplifiers that find their way into a wide range of sensors. We offer a variety of standard specifications available to suit your requirements.

HISTORY

One of our first projects was the creation of a programmable amplifier. Since then, we have designed many different variants of amplifier, from simple fixed gain to complex high bandwidth multi-channel temperature compensated.

We have designed and manufactured a great many amplifiers, which have found their way into myriad sensors and applications.



SENSORS AND DATA ARE EVERYWHERE

Sensors are ubiquitous in modern life - they are everywhere. And in most cases, interacting with their environment and reporting back seamlessly. However, any system is only as good as its input, and the importance of that cannot be underestimated. Starting out with the correct sensor and interface are imperative. They are the building blocks for a repeatable, reliable system.



SENSOR INTERFACE

Without accurate, reliable, repeatable measurements, higher level functionality cannot be built and relied upon. Higher functionality starts with the sensor, then moves quickly onto the electronics. The first job is to translate sensor output into something useable; a clean amplified analogue signal, or a precision digitised sample stream.

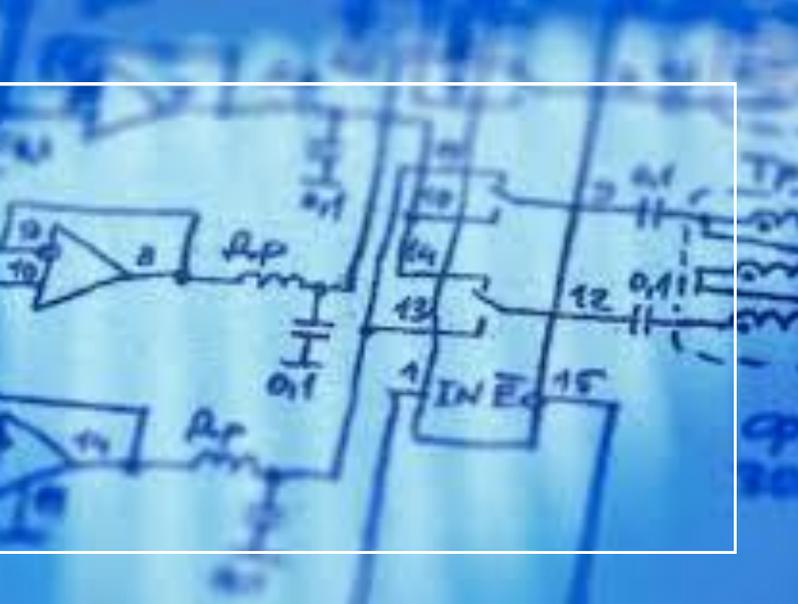
Some standard types of sensors and interfaces we offer include: -

- Pressure and load cells from Wheatstone bridges, foil gauge, silicon and piezo.
- Temperature inputs, PT1000, NTC, PRT, and pn-junctions.
- Accelerometers and gyroscopic sensors
- Speed and tooth detection systems including variable reluctance and hall effect
- Displacement through LVDS and hall effect technologies
- Angle of rotation using hall effect and digital encoders
- Power (voltage and current) for metering or control

Once we have a clear sensor signal, we can look at calibration.

ACCURACY AND CALIBRATION

We are used to interfacing with the real world in its rawest electrical form and providing mechanisms for compensating primary sensor inputs with secondary or tertiary signals, including linearization. That can include compensated amplifiers, offering a high degree of accuracy in a small package, to dedicated acquisition with cable compensation.



SYSTEM INTEGRATION

We work closely with customers to meet their requirements. Depending on the circumstances, we may have something off the shelf that will work for your needs.

If we have nothing suitable that can be adapted, we work with customers to meet their requirements, whether that relates to spatial demands, product specification or price.

DELIVERY

I.C.E. designs and manufactures thousands of programmable amplifiers which find their way into an array of sensors.

Get in touch today to discuss your requirements!

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