

IPA Amplifier

- Differential or single end input
- 0.5 to 800mV/V input sensitivity
- 1, 2, 3rd order compensation
- Operating temperature -40°C to 150°C
- OWI programming function
- Miniature size

TECHNICAL DATA

Parameter	Value
Input types	Resistive bridge, Half-bridge, Resistive divider, Voltage source (bridge resistance 350Ω to 15kΩ)
Sensitivity (Max)	0.5mV/V
Sensitivity (Min)	800mV/V
Conditioning of bridge non-linearity, filtering	Linear, 1st Order, 2nd Order, 3rd Order
Input resolution	18 bit
Temperature compensation input types	On chip, External using bridge, External PT100, External diode
Temperature compensation	Linear, 1st Order, 2nd Order, 3rd Order
Output resolution	12 bit
Output voltage	0-5 V, 0.5 - 4.5 V
Supply voltage	5V ratiometric or 8 to 30V regulated
Supply current	<20mA
Bandwidth	3 kHz
Programming / configuration	OWI (One Wire Interface) through signal wire
Operating Temperature	-40°C to 150°C
Storage Temperature	-40°C to 150°C
Board Dimensions	10mm diameter

OVERVIEW

The I.C.E Poly Amplifier is a 'Next Generation' fully conditioned signal conditioning device for connection to a raw mV signal such as a wheatstone bridge strain gauge, pressure, force, position or temperature sensor.

With fully programmable input, output settings and parameters the unit can be customized to suit your installation.

A programming module and software connects the board via a One Wire Interface directly into the signal connection, allowing configuration and calibration of your sensor to be carried out at anytime during assembly or even as a return to base re-calibration

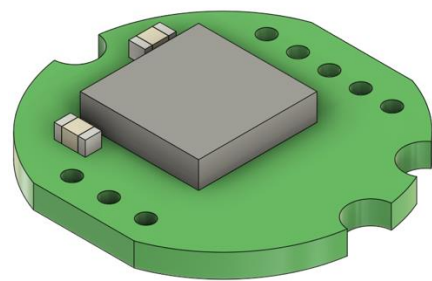
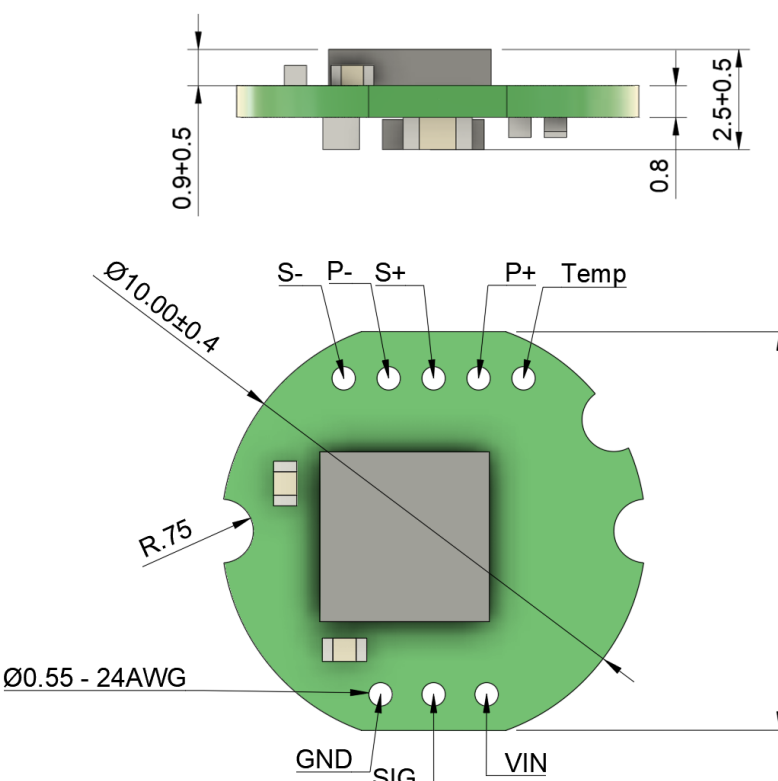
Supplied as a PCB component.

TYPICAL APPLICATIONS

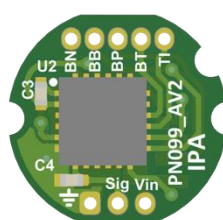
- Pressure, Force, Torque Transducers
- Full or half bridge signals
- Single end signal such as position potentiometer or temperature sensor
- Small space constraint installation



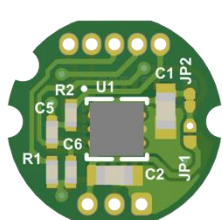
MECHANICAL



P-	Bridge Supply -
S-	Bridge Signal -
S+	Bridge Signal +
P+	Bridge Supply +
Temp	Temperature Input
GND	Ground
Sig	Signal
Vin	Voltage in
Connections	



Front



Back

Supply Voltage Options		
Links	BRK1	JP1
5V	Break	Make
8 - 30V	Make	Break

ORDERING

PCB Part Number: PN099_AV2

Programming dongle and software Part Number: AN104_AV1

OTHER SERVICES

- Sensor signal conditioning
- Acquisition and storage of data from sensors
- Wireless data transmission systems
- Hardware, Firmware and software development


CONTACT US

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