

AS7539A 3-Wire Universal Bridge Amplifier

The AS7539A is a universal 3-wire amplifier providing five modes² of operation (current/voltage and unipolar/bipolar outputs). It has individual multi-turn potentiometers for the precise setting of Zero and Span and is also available with **mid. zero output** (12mA for example) for compression / tension transducers. The inputs provide EMI-/RF-suppression. Transducer wires can be easily clamped onto the board. Two additional extension boards (ASM1) are also available providing multiple transducer processing (allowing up to 4- or 8-amplifiers), along with rugged aluminium enclosures offering IP66 protection.

Features

- Wide range power supply 12-24V¹
- 10V stabilised bridge excitation
- Bridge resistance 87 Ohm (or greater)
- Bridge sensitivity 0.3mV/V – 3mV/V
- Size 48mm x 41mm x 19mm height
- Fast calibration procedure
- Reverse-polarity protection



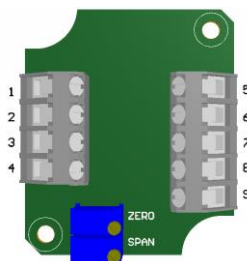
Applications

- Industrial Weighing
- Load Testing & Monitoring
- Overload Protection Systems

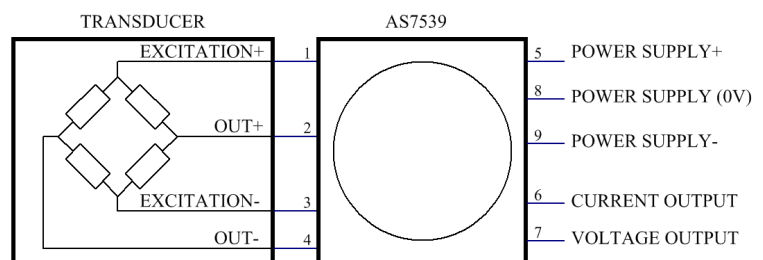
Ordering

Part number:	AS7539A*
*Please specify required input sensitivity and output type (current/voltage and unipolar/bipolar)	
Customer specific electrical / mechanical changes are possible – please contact us with your individual requirements.	

Board Connections



Schematic Diagram



Specifications

Parameter	Min	Typical	Max	Unit
¹ Supply Voltage (unipolar voltage/current output)	12		24	V
¹ Supply Voltage (bipolar voltage output)	-12 to -15		+12 to +15	V
Current Output – Zero (adjustable control)	3.9	4		mA
Current Output – Span (adjustable control)		20	23	mA
Voltage Output – Zero (adjustable control)		0.004		V
Voltage Output – Span (adjustable control)	5		10	V
Bridge Sensitivity	0.3		3	mV/V
Bridge Resistance	87			Ohms
Bridge Excitation Voltage		10.0		V



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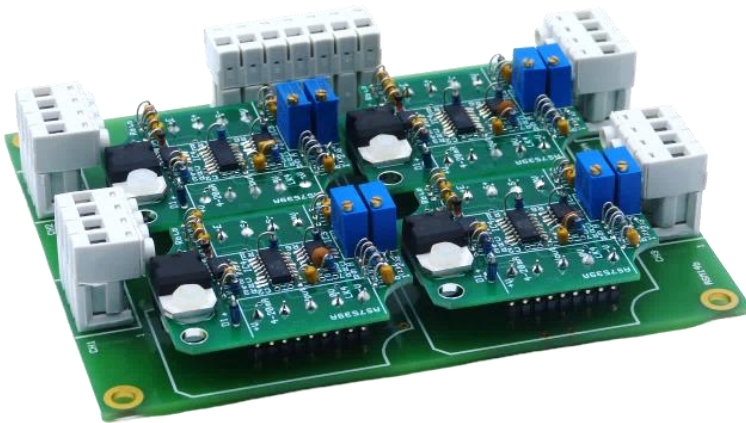
Parameter	Min	Typical	Max	Unit
Current Output Temp. Coefficient – Zero		0.3	1	uV/°C
Current Output Temp. Coefficient – Span		0.01		%/°C
Operating Temperature	-20		50	°C

²Five configurable output modes are available:

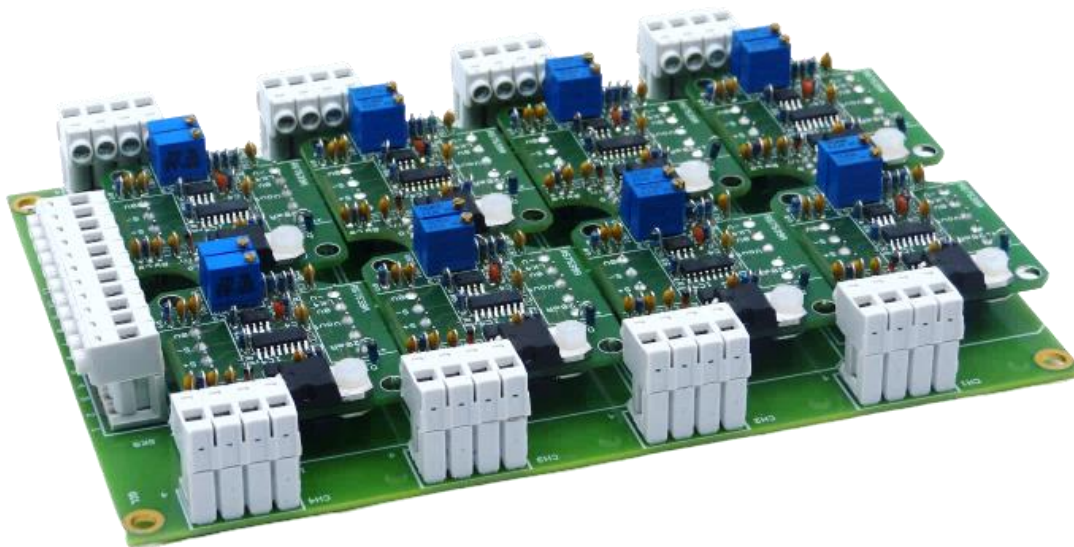
1. 4-20mA current
2. 0-5V voltage
3. 0-10V voltage
4. 2.5 to 7.5V voltage
5. -10V to +10V voltage

Optional Extras (Motherboards and Enclosures)

Part number:	AS7539A-ASM1-4	Motherboard for up to 4 AS7539A amplifiers
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Part number:	AS7539A-ASM1-8	Motherboard for up to 8 AS7539A amplifiers
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Part number:	AS7539A-ENCL1	IP66 Enclosure for 1 AS7539A incl. 2x PG7 cable glands
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Part number:	AS7539A-ENCL2	IP66 Enclosure for ASM1-4 incl. cable glands
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Part number:	AS7539A-ENCL3	IP66 Enclosure for ASM1-8 incl. cable glands
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