

Ultra-slim analog signal conditioner

# AD-4541-V/I

The AD-4541-V and AD-4541-I analog signal conditioners can convert the signal received from a bridge type sensor such as a load cell, pressure sensor, strain gauge, etc. to a voltage output (AD-4541-V / -2V to +2V) or a current output (AD-4541-I / 4-20mA).



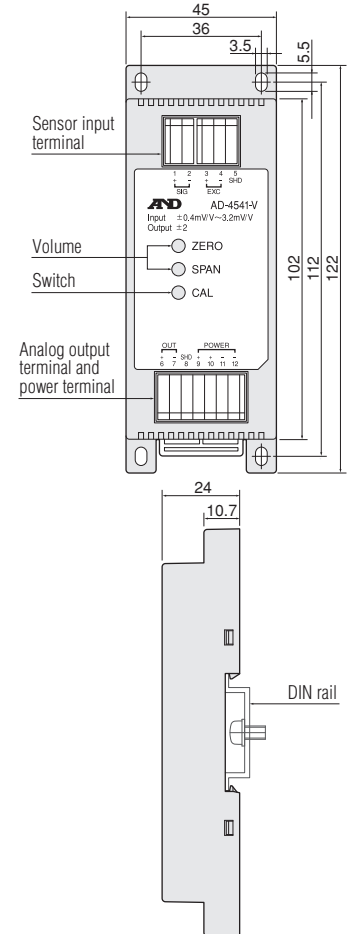


- Ultra-slim, lightweight and easy-to-install
- Calibration can be performed with the ZERO / SPAN volume controls or the CAL switch
- Provides a wide-range zero adjustment ( $\pm 0.5\text{mV/V}$ ) / span adjustment ( $0.4\sim 3.2\text{mV/V}$ ) for use with various bridge type sensors
- No crimping terminal is necessary because a spring clamp terminal block is used for easy wiring.

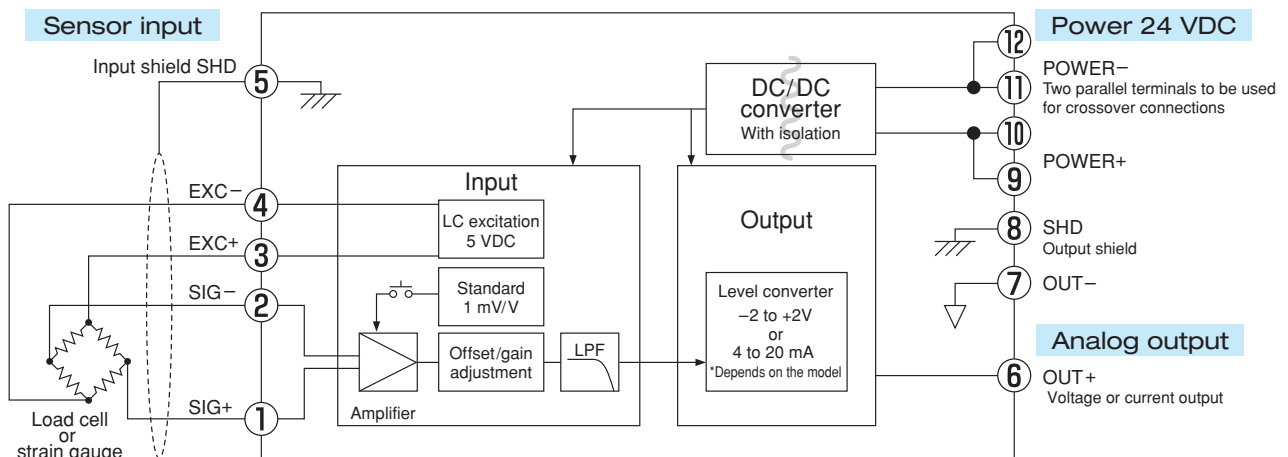
## Specifications

Category	Item	Description
Input	Input range	$-3.2\text{ mV/V}$ to $+3.2\text{ mV/V}$
	Zero adjustment range	$-0.5\text{ mV/V}$ to $+0.5\text{ mV/V}$
	Span adjustment range	$0.4\text{ mV/V}$ to $3.2\text{ mV/V}$
	Non-linearity	0.05% of F.S. typ.
	Load cell excitation	5 VDC 60 mA max. (Can be used with one 120 load cell or a maximum of four 350 load cells)
	Zero temperature coefficient	$2\mu\text{V}/^\circ\text{C}$ RTI typ.
	Span temperature coefficient	200ppm/ $^\circ\text{C}$ typ.
	Frequency response	DC to 2 Hz( $-3\text{dB}$ )
	Response	Approx. 190 ms (0% to 90%)
	Input noise	$2\mu\text{Vp-p}$ RTI typ. frequency range 0.1Hz to 10Hz
	Calibration standard	$1\text{mV/V} \pm 0.2\%$ typ.
	Output	Voltage output (AD-4541-V)
Current output (AD-4541-I)		4 mA to 20 mA (Load 250 or lower)
Power	Voltage	24 VDC $+10\%$ – $15\%$
	Current	100 mA max (Approx. 2.4W)
General	Operating temperature	$-5^\circ\text{C}$ to $+50^\circ\text{C}$
	Operating humidity	85%RH or lower (No condensation)
	Storage temperature	$-20^\circ\text{C}$ to $+70^\circ\text{C}$
	External dimensions	45W x 122H x 24D mm
	Mass	Approx. 90 g
Others	Terminal	Spring clamp type Wire 0.08 mm <sup>2</sup> to 1.5 mm <sup>2</sup> (AWG 28-14) Maximum outer diameter 3.4 mm
	Installation	DIN rail or screw
	Material (Body)	PBT (V0)
	Isolation	Input output to power supply
	Insulation resistance	500 VDC for 1 min
	Accessories	Flathead screwdriver 1 pc, Instruction manual 1 pc

## External dimensions



## Block Diagram



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