

DESCRIPTION:

The 3DSA-05 converts three differential voltages into three corresponding single-ended voltages with respect to an external ground reference. The 3DSA-05 can be used as an extension of the electronic module (Module E) of SENIS's 3-axis magnetic flux density to voltage transducers: it enables measurement of the transducer output voltages using the instruments that have single-ended inputs (such as oscilloscopes).

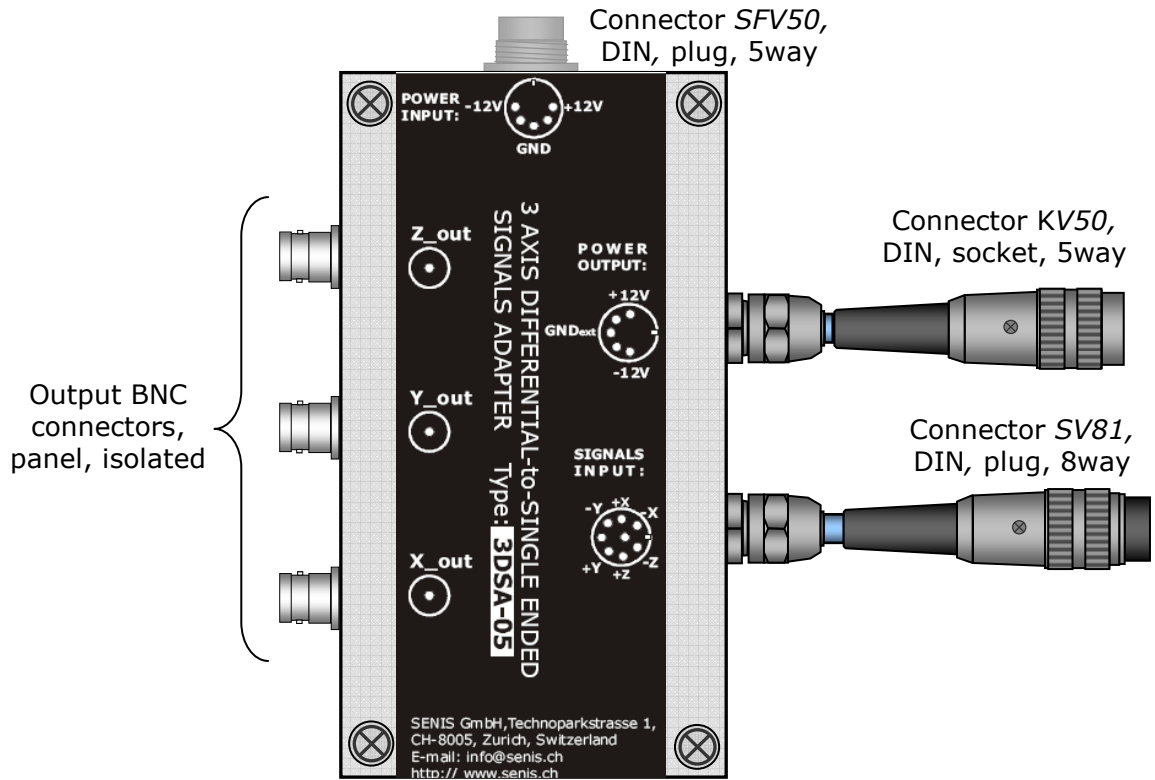


Figure 1. The structure of Three-Axis Differential-to single ended Adapter 3DSA-05

Mechanical & Electronics Specifications:

Gain (Output single-ended voltage / Input differential voltage Conversion Ratio) for all 3 channels	1.0 V/V (0dB)	(with max. tolerance $\pm 0.1\%$)
Small-signal bandwidth	3 MHz	
Slew rate	10 V / μ s	
Differential Signals Input Connector	Connector SV81, DIN, plug, straight, 8 poles	
	Field signal [X+, X-]	Pins 1 and 6, respectively
	Field signal [Y+, Y-]	Pins 5 and 4, respectively,
	Field signal [Z+, Z-]	Pins 3 and 7, respectively
Power Input Connector	Connector SFV50, DIN, plug, panel, 5 poles	
	Power, +12V	Pin 3
	Power common (GND)	Pin 2
	Power, -12V	Pin 1

Power Output Connector	Connector KV50, DIN, socket, straight, 5 poles Power, +12V Pin 3 Power common (GNDext) Pin 2 Power, -12V Pin 1
Single-ended Output Signals Connectors	Standard BNC connectors, panel, isolated
External ground reference (GNDext)	to be connected to the external contacts of the BNC output signals connectors
Resistance between the External ground reference (GNDext) and the Power common (GND)	$\approx 100 \Omega$
Electronics module (3DSA-05)	High mechanical strength, electrically shielded aluminum case [60 W x 110 L x 31 H mm] with mounting provision
DC Power	Voltage $\pm 12 \text{ V}$ nominal, $\pm 10 \%$ Current cca. 60 mA
Environmental Parameters:	
Operating temperature	+5°C to +45°C
Storage temperature	-20°C to +85°C