

Voltage Sensor Board

HVSB-3A-4014R0

Current Sensor Board

HCSB-3A-1514R5

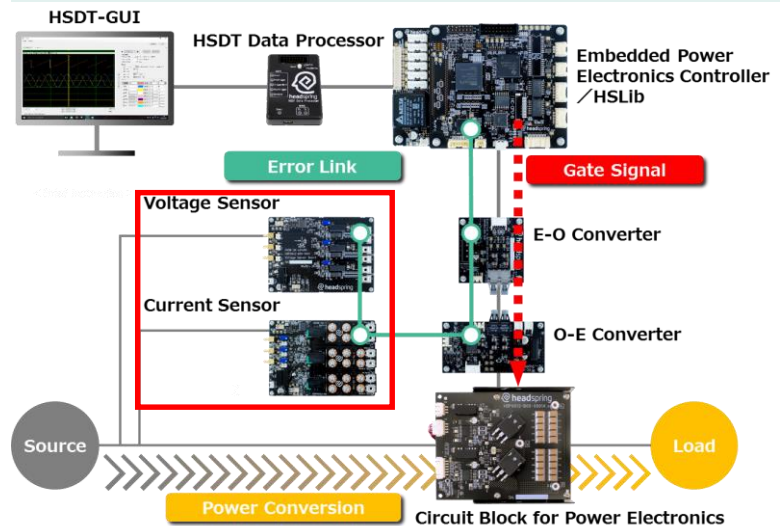
General Purpose Precise Voltage and Current Sensor with Error Detection Functions for R&D of Power Electronics



Abstract

- Voltage/Current Sensor with 3ch input
- Each channel and Analogue Signal are Isolated
- Overvoltage and Overcurrent Detection Function with Error Signal Output
- Voltage and Current Measurement with attached Cable and/or Test-pins on the Sensor board
- Various Measurement Range is Available by Attached Short-bar for Current Sensor

Connection Image



Features

Wide Measurement Range and Error Detection Function

- Voltage Range: $\pm 400V$
- Current Range: 50Arms, 25Arms, 16.7Arms
(Easily Changed by setting Attached Short-bar to the Current Sensor Board)
- Error Threshold can be Defined Flexibly by User
- Error Signal is held until Reset Signal Input to keep Safe Evaluation Environment.

“Error Link” Function

- Error State Sharing with Other Headspring Platform Products with Attached Cable
- Automatic and Hardware-level Gate Shutdown Function

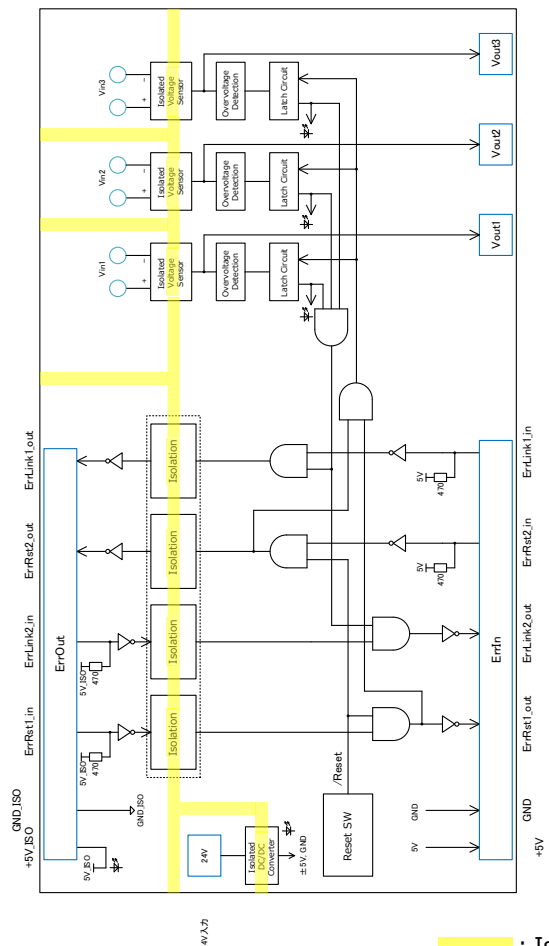


Short-bar attached to Current Sensor Board

Specification of Voltage Sensor Board

Subject	Specification	Note
Input Voltage Range (Vin)	±400V	
Output Voltage Range (Vout)	±4V	
Division Ratio (Vout/Vin)	0.01V/V	
Cut-off Frequency	100kHz	
Linearity	0.3%	For Full Scale
No. of Channels	3ch	
Error Link Function ErrIn Connector	1ch	VILmax = 1.35V VIHmin = 3.15V IImax = 10mA (per Channel)
Error Link Function ErrOut Connector	1ch	VOLmax = 0.55V VOHmin = 3.8V IOmax = 10mA (per Channel)
Power Supply 5V	<40mA	±5%
Power Supply 24V	<100mA	±10%
Size	140mm×100mm	
Withstand Voltage (Input-Output)	AC3000V	1 min
Isolation Resistance (Input-Output)	>10MΩ	DC500V

Block Diagram of Voltage Sensor Board

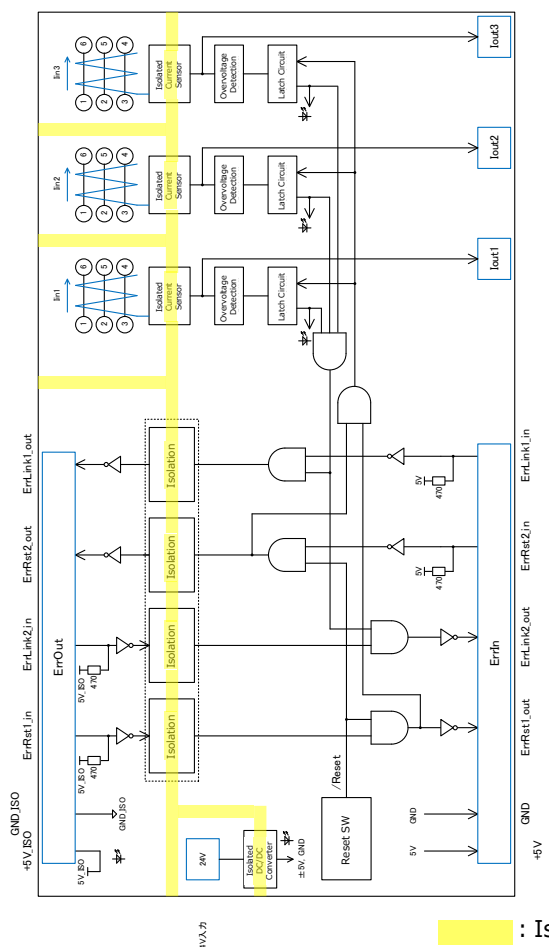


: Isolation

Specification of Current Sensor Board

Subject	Specification	Note
Input Voltage Range (Vin)	short bar1:±50.0Arms short bar2:±25.0Arms short bar3:±16.7Arms	short bar1:±150Apk short bar2:±75Apk short bar3:±50Apk
Output Voltage Range (Vout)	±4.5V	
Division Ratio (Vout/Vin)	short bar1 : 0.03V/A short bar2 : 0.06V/A short bar3 : 0.09V/A	
Cut-off Frequency	100kHz	
Linearity	0.2%	
No. of Channels	3ch	
Error Link Function ErrIn Connector	1ch	VILmax = 1.35V VIHmin = 3.15V IImax = 10mA (per Channel)
Error Link Function ErrOut Connector	1ch	VOLmax = 0.55V VOHmin = 3.8V IOmax = 10mA (per Channel)
Power Supply 5V	<40mA	±5%
Power Supply 24V	<160mA	±10%
Size	140mm×100mm	
Withstand Voltage (Input-Output)	AC3000V	1 min
Isolation Resistance (Input-Output)	>10MΩ	DC500V

Block Diagram of Current Sensor Board



: Isolation

* Specifications and Design are subject to change