ISDD

Instrumentation Service Development

Electronics Unit

ESRF The European Synchrotron

SSI2V

# DEVICE DATASHEET

Description

SSI2V is an electronic module that convert an incremental or absolute position signal in an analog voltage signal. You can choose for a differential or single ended output signal depending of your application.

Typically, SSI2V is used to drive the auxiliary input of a piezo amplifier.

Functionalities

- IcePAP DAC interface.
- Powered by a 5V DC auxiliary supply
- 20 bits DAC resolution
- Quadrature signal understanding
- Absolute position signal understanding
- Set zero function on the quadrature mode
- None volatile configuration selectable thanks to the switch inside of the device

Front and Rear Panels
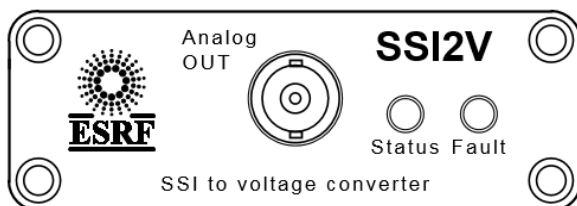
Front Panel
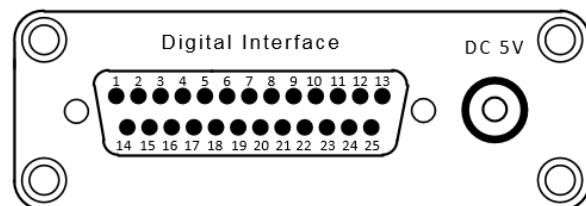
Rear Panel

Specifications

Parameter	Value	Unit	Comments

Voltage Output

Parameter	Value	Unit	Comments
Connector	BNC Connector		
Voltage output range	±10.48 or 10.48	V	Selectable
Maximum output range	20.96	V	
1 LSB	20 or 10	µV	According to the output range

Quadrature Input

Parameter	Value	Unit	Comments
Phase A, B electrical levels	RS-422 inputs		Differential signals
Maximum input frequency	35	Mhz	

Absolute Input

Parameter	Value	Unit	Comments
Clock output electrical level	RS422 output		Differential signals
Input data electrical level	RS422 input		Differential signals
Number of bits	20		
Clock frequency	500	Khz	
Tram frequency	10	Khz	
Protocols embedded	SSI, BISS		Selectable

Commands Input

Parameter	Value	Unit	Comments
Number of commands input	3		Enable, SetZ, InfoC
Type of input	Schmitt Trigger		

Power

Parameter	Value	Unit	Comments
DC Auxiliary supply voltage	5	V	+/- 10 %
Power consumption	1.5	W	

Physical

Parameter	Value	Unit	Comments
Dimensions (h x w x l)	27 x 78 x 120	mm	
Weight	0.2	kg	