

AG590

16 Channel 9 kV / 50 μ A High Voltage Board



Features



- 16 independently controllable High Voltage channels
- 9 kV / 50 μ A output range
- Available with either positive or negative polarity
- Radial 52 pin connector
- Low ripple
- Under/over-voltage alert, overcurrent and max. voltage protection
- Interlock logic for unit enable
- Software Tool for easy channel management

Description

AG590 is a double width module (10 TE wide) that houses **16** Independent high voltage channel is delivered through **Radiall 52 pin HV connectors**. The board is available with either positive or negative output polarity. The channels share a **Common Ground**. The output voltage can be programmed and monitored in the **0 ÷ 9 kV** range with **10 mV** monitor resolution. The Maximum current full scale is **50 µA** with **100 pA** Iset/Imon monitor resolution.

Radiall 52 pin connector

Single width (5 TE wide), 16 channels for Mod. AG590

Consult our **connectors reference page** for technical information.

Independently programmable for each channel:

Output voltage	0 ÷ 9 kV	step: 200 mV
Current limit	0 ÷ 50 µA	step: 1 nA
V Ramp up/down	1 ÷ 500 V/sec	step: 1 V/sec
TRIP parameter	0 ÷ 999.9 s; 1000 s = Infinite	step: 0.1 s

Safety features allows the module to perform as a current generator and includes:

Channels can be enabled or disabled

can be enabled or disabled through the Global Interlock logic.

Overvoltage and Undervoltage warning

when the output voltage differs from the programmed value.

Overcurrent detection

when a channel attempts to exceed the programmed current limit, it signalled to be in "overcurrent" and enter in a TRIP status. The output voltage is varied to keep the current below the programmed limit for a programmable TRIP time, then the channel is switched off. If TRIP is set to "constant current mode", the channel behaves like a current generator.

Hardware VMAX

maximum output voltage can be set, via front panel potentiometer, at the same common value for all the board channels. VMAX value can be read out via software.

Safety Board Interlock

this protection disables the HV generation when the HV outputs are not connected to their loads.

Accessories available:

- Mate cable connector (Mod. **A996**) and relevant insertion/extraction tool (Mod. **A995**)

Technical Specifications

No. of Channels

16

Output Voltage

0÷9 kV

Polarity

Positive / Negative depending on purchased version

Max. Output Current

50 μ A

Voltage Set Resolution

200 mV

Voltage Monitor Resolution

10 mV

Current Set Resolution

1 nA

Current Monitor Resolution

100 pA

VMAX hardware

0÷9 kV common for all the board channels

VMAX hardware accuracy

\pm 2% of FSR

VMAX software

0÷9 kV settable for each channel

VMAX software resolution

1 V

Ramp Up/Down

1÷500 Volt/sec, 1 Volt/sec step settable for each channel

Voltage Ripple

< 10 mVpp typical

VMon vs. VOut Accuracy

\pm 0.3% \pm 1 V

VSet vs. VMon Accuracy

$\pm 0.3\% \pm 1 \text{ V}$

IMon vs. IOut Accuracy

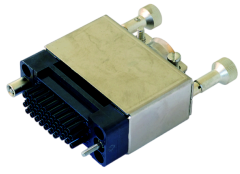
$\pm 2\% \pm 2\text{nA}$

ISet vs. IMon Accuracy

$\pm 2\% \pm 20\text{nA}$

Accessories

A996



52 pin cable connector

A995



Insertion/extraction tool for A996

Related Products

SY5527



Universal Multichannel Power Supply System / 19"wide, 4U-high (6 slot)

SY4527LC



Universal Multichannel Power Supply System Low Cost / 19"wide, 8U-high (10 slot)

SY5527LC



Universal Multichannel Power Supply System Low Cost / 19"wide, 4U-high (4 slot)

SY4527



Universal Multichannel Power Supply System / 19"wide, 8U-high (16 slot)

Gallery



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