XRG SERIES

X-RAY POWER SUPPLY MODULE

GENVOLT HIGH VOLTAGE POWER SUPPLIES

High Voltage PSU

- Power for X-Ray Tubes
- Models From 50kV To 60kV
- 24V DC Input
- Remote Control Interface
- Multiple Circuit Protection Including Arc and Short Circuit

See XRG on Website

We recommend visiting our website for any updated model information

Specification Summary

The XRG series precision X-ray power supply is designed and developed by Genvolt as a compact high voltage power supply for X-ray tubes.
This small power supply has high stability and is available with output voltage ranges from 50 to 60kV.

The output current of 0-1mA provides DC to ground filament, with a filament current of 0-3.5A.

Accessing the internal potentiometer or remote programming mode via a DB15 interface.

Standard Features as fitted at the factory

Output Current	0-1 mA
Input	+24Vdc ±10%, maximum current 5A.

Output

High Voltage	50-60kV
Beam Current	0-1mA
Filament Voltage	Limited to 5V
Filament Current	0-3.5A
Programming	Local and remote analogue communication interface
Protection	Arc and short circuit

Technical Specifications

Output Voltage

There are multiple specifications and models, from 50kV to 60kV.
Positive & negative polarity can be selected
(please specify when ordering).

Ripple and Noise	Better than 0.1%
Power Regulation Rate	Better than 0.1%
Load Regulation Rate	Better than 0.1%
Stability	30 min after starting up, less than every 8 hours 0.05%
Temperature Coefficient	≤25ppm/°C

Local Output Control

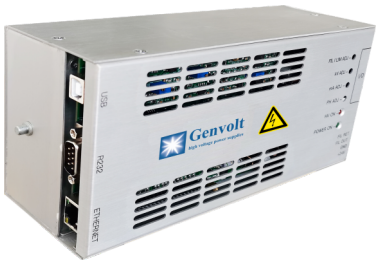
Voltage & current are continuously adjustable in the full range, via an analogue remote control.

Environment

Operating Temperature	-10 to 40°C, Storage -40 to 85°c
Humidity	10% to 90% relative humidity, non-condensing
Cooling	Forced air cooling. The air inlet is through the front panel and the outlet is on the rear panel

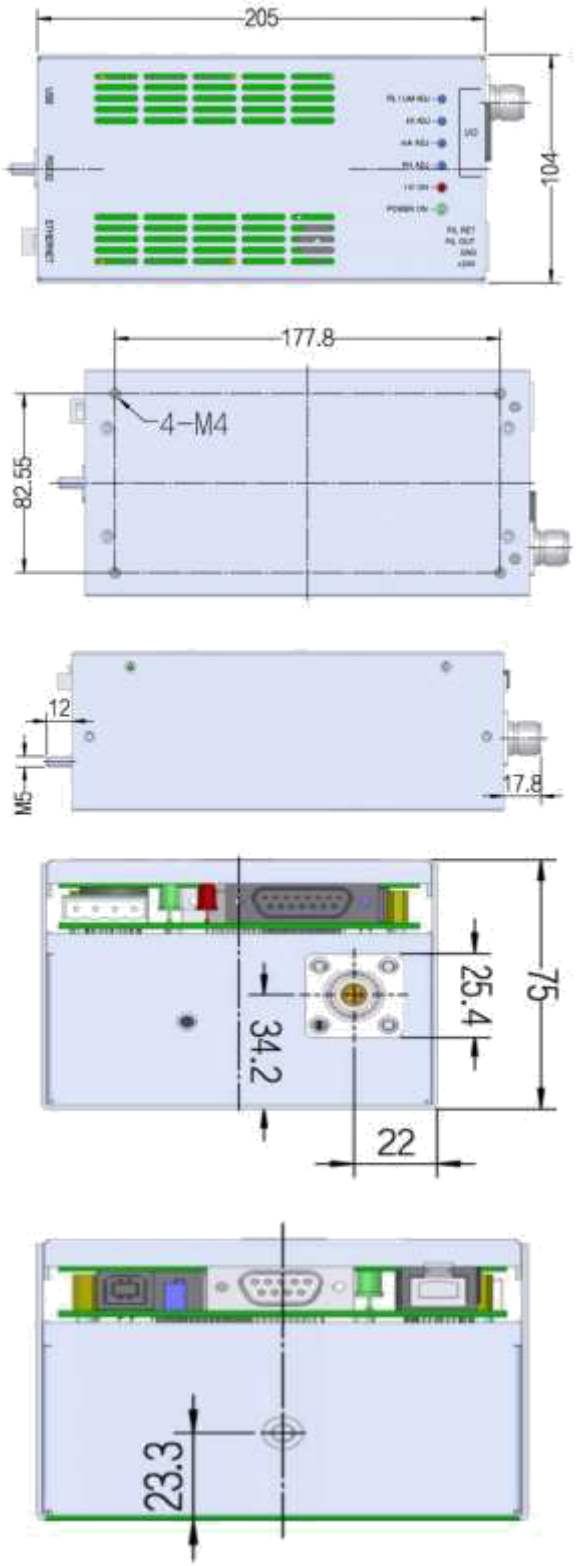
Dimensions

HV Module (L x W x H)	205mm x 104mm x 75mm (8.07" x 4.09" x 2.95")
Weight	Approximately 2Kg (4.4lbs)

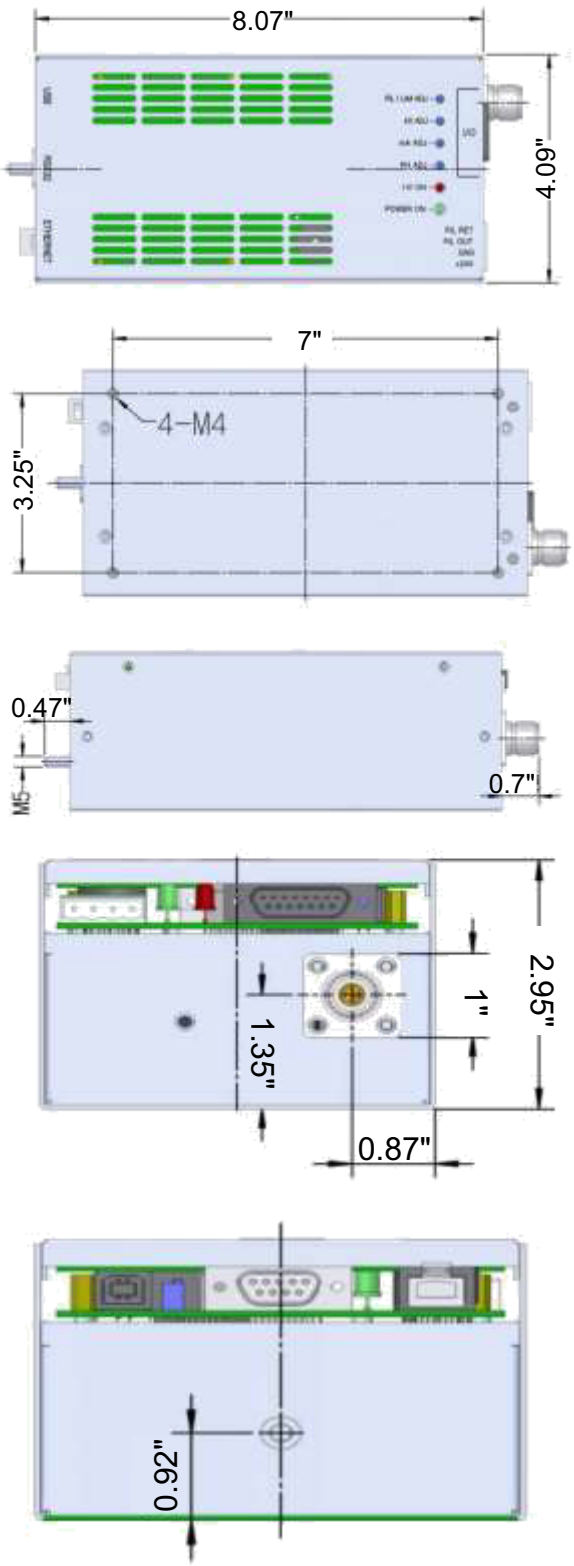


Mechanical Dimensions

Metric



Imperial



MODEL XRG01

Local Control

For local control, connect pin 7 to pin 8 (voltage) and pin 10 to pin 11 (current). Adjust the voltage and current setpoints via the potentiometer openings in the top cover that are labelled xxx and yyy. Power supply in the upper panel has a circular opening. Adjust the internal potentiometer for setting voltage and current.

DB15 Pin Details

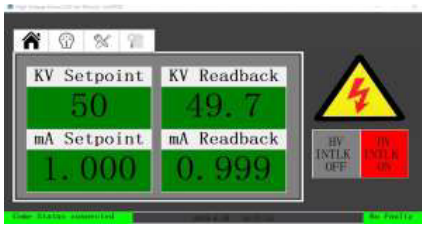
Pin Number

1	Ground	Ground
2	Voltage Display	0-10Vdc full scal, Zout=1kΩ
3	Current Display	0-10Vdc full scal, Zout=1kΩ
4	External Interlock	Short to PIN15, High Voltage Open
5	+10Vdc reference	Maximum Current 1mA, Voltage +10Vdc
6	Filament Current Display	1V=1A, Zout=10kΩ
7	Voltage Remote Control	Input 0-10Vdc Full Scal, Zin=10MΩ
8	Voltage Local Control	Output 0-10Vdc, Potentiometer Adjustment
9	Filament Limit Setting Display	1V=1A, Potentiometer Adjustment, Zout=10kΩ
10	Current Remote Control	Input 0-10Vdc Full Scal, Zin=10MΩ
11	Current Local Control	Output 0-10Vdc, Potentiometer Adjustment
12	Idle	Optional Safety Interlock Wiring
13	Idle	Optional Safety Interlock Wiring
14	Filament Preheat Setting Display	1V=1A, Potentiometer Adjustment
15	+24V Ground	+24V Ground

Remote Control Interface

Standard USB, RS232, Ethernet digital interface can control the power supply through GUI program. This makes it easy to operate and saves time. When the voltage and current settings are 0 at the same time, this is local control and can be used for display. When the voltage and current are not equal to 0, it is controlled by the software, and the power supply can be set and displayed.

1	TX+	5	NC
2	TX-	6	RX-
3	RX+	7	NC
4	NC	8	NC



Main Control Screen

Filament Status Screen


Connections Settings Screen

Worldwide Locations

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