



Wisman's XRW Series of regulated X-ray power supplies offer output positive or negative voltages to 65kV and incorporate a filament supply which provides regulated dc current adjustable between 0.3A and 3.5A at 5.5V and have the function of fit-preheat. High voltage and filament current can be linearly ramped up. The XRW incorporates local and remote programming, monitoring, safety interlock, arc, shortcircuit and overload protection. An optional USB2.0, RS-232 and RS-422 interface is available.

### TYPICAL APPLICATIONS:

X-ray tubes from  
Kevex Oxford, RTW, Superior, Varian and Trufocus.

### OPTIONS:

<b>BIAS</b>	Bias Supply
<b>USB</b>	USB Interface
<b>RS232</b>	RS-232 Interface
<b>RS422</b>	RS-422 Interface
<b>NAT</b>	ARC, does not shutdown
<b>AT(X)</b>	ARC, shutdown (option 1-8 arc)

### SPECIFICATIONS:

#### Input:

+24Vdc $\pm$ 10% , 5.0A maximum for either 50watts or 75 watts .  
+24Vdc $\pm$ 10% , 8.0A maximum for 100 watts units .

#### Output:

See "XRW SELECTION TABLE"

#### Voltage Control:

Local: Internal multi-turn potentiometer to set

- **OPTIONAL USB2.0. RS-232 OR RS-422 IS AVAILABLE.**
- **50KV AT 2 MA. 100 WATT MAX.**
- **65KV AT 2 MA. 100 WATT MAX.**
- **ADJUSTABLE INTEGRATED FILAMENT SUPPLY**
- **OVERVOLTAGE & SHORT CIRCUIT PROTECTION.**
- **VOLTAGE & CURRENT PROGRAMMING.**
- **LOCAL AND REMOTE CONTROL.**
- **SAFETY INTERLOCK.**
- **OEM CUSTOMIZATION AVAILABLE.**

voltage from 0 to full output voltage.

Remote: 0 to +10Vdc proportional from 0 to full output voltage. Accuracy:  $\pm$ 1%. ZIN: 10Mohm.

#### Emission Control:

Local: Internal potentiometer to set beam current between 0 and full output current.

Remote: 0 to +10Vdc proportional from 0 to full output current. Accuracy :  $\pm$ 1%. ZIN: 10Mohm.

#### DC Filament Supply:

Current: 3.5A, adjustable

Voltage: 5.5V, Preheat

#### Voltage Regulation:

Load: 0.01% of output voltage no load to full load.

Line:  $\pm$ 0.01% for  $\pm$ 10% change in input voltage.

#### Current Regulation:

Load: 0.01% of output current from 0 to rated voltage.

Line: 0.01% of rated current over specified input range.

#### Ripple:

0.25% p-p of output voltage.

#### Temperature Range:

0° C to +50° C operational.

#### Temperature Coefficient:

0.01% per ° C, voltage and current regulated.

#### Stability:

0.05% per 8 hours after 1/2 hour warm-up.

#### Voltage and Current Monitors:

0 to +10Vdc proportional from 0 to rated output. Accuracy  $\pm$ 1%.

#### Dimensions:

5.51" H x 3.35" W x 9.45" D

(140.00mm x 85.00mm x 240.00mm)

### XRW SELECTION TABLE 50W 75W 100W

50W			75W			100W		
kV	mA	Model	mA	Model	mA	Model		
25	2.0	XRW25*50	3.00	XRW25*75	4.00	XRW25*100		
30	1.67	XRW30*50	2.50	XRW30*75	3.33	XRW30*100		
50	1.00	XRW50*50	1.50	XRW50*75	2.00	XRW50*100		
65	0.77	XRW65*50	1.15	XRW65*75	1.54	XRW65*100		

\*Specify "P" for positive polarity and "N" for negative polarity

### XRW MONITOR CONNECTOR 4PIN

J4	SIGNAL	J4	SIGNAL
1	Ground	3	mA Monitor
2	kV Monitor	4	Intlk Enable

### COTROL INTERFACE MINI-D CONNECTOR 9PIN

J5	SIGNAL	J5	SIGNAL
1	+10Vdc Reference	6	mA Program Input
2	Filament Monitor	7	mA Program Output
3	kV Program input	8	Intlk Enable
4	kV Program Output	9	Signal Ground
5	Spare		

### DC24V CONNETOR

J2	SIGNAL	J2	SIGNAL
1	+24V Input	2	Ground

### USB DIGITAL INTERFACE

J6	SIGNAL
1	VBUS +5Vdc
2	D- Data-
3	D+ Data+
4	GND USB Ground

### XRW FILAMENT CONNECTOR

J3	SIGNAL	J3	SIGNAL
1	Filament out	3	Spare
2	Filament Return		

### RS-232, RS-422 INTERFACE

J7	SIGNAL
1	N/C No Connection
2	TXD Transmit Data
3	RXD Receive Data
4	N/C No Connection
5	SGND Signal Ground
6	RA+ RA+ Input
7	RB- RB- Input
8	TB- TB- Output
9	TA+ TA+ Output

### LED INDICATORS

INDICATOR	SIGNAL
1	POW POW On
2	ARC ARC Fault Occurs
3	OT Over Temperature Occurs
4	OC Over Current Occurs
5	UC Low Current Occurs
6	OV Over Voltage Occurs
7	UV Low Voltage Occurs
8	HV HV ON

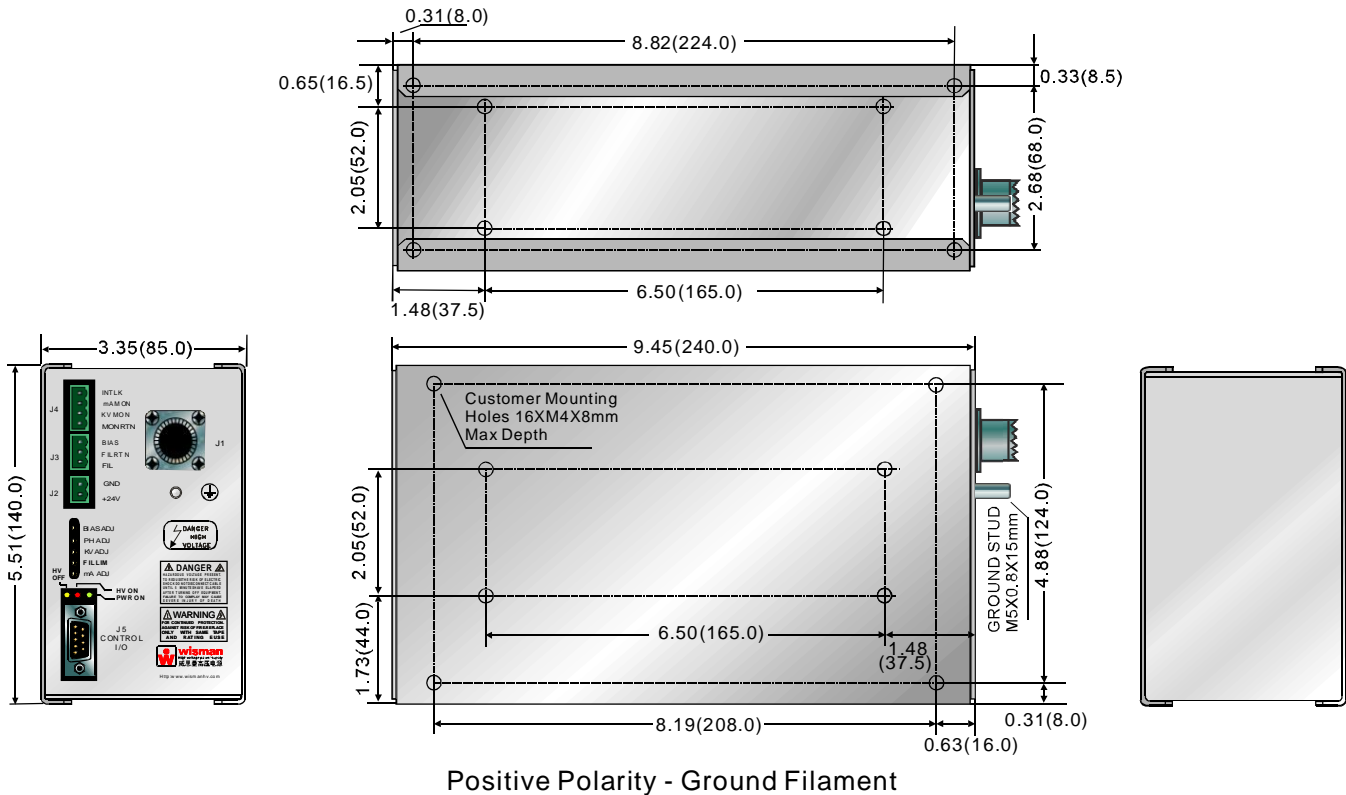
### OPTION MODEL

kV	mA	Model	W	kV	mA	Model	W
50	2	XRW50P50-2	50	65	1	XRW65P65	65
50	2	XRW50P75-2	75	65	2	XRW65P65-2	65
60	1	XRW60P60	60	65	2	XRW65P75-2	75
60	2	XRW60P60-2	60	65	2	XRW65P100-2	100
60	2	XRW60P75-2	75				
60	2	XRW60P100-2	100				

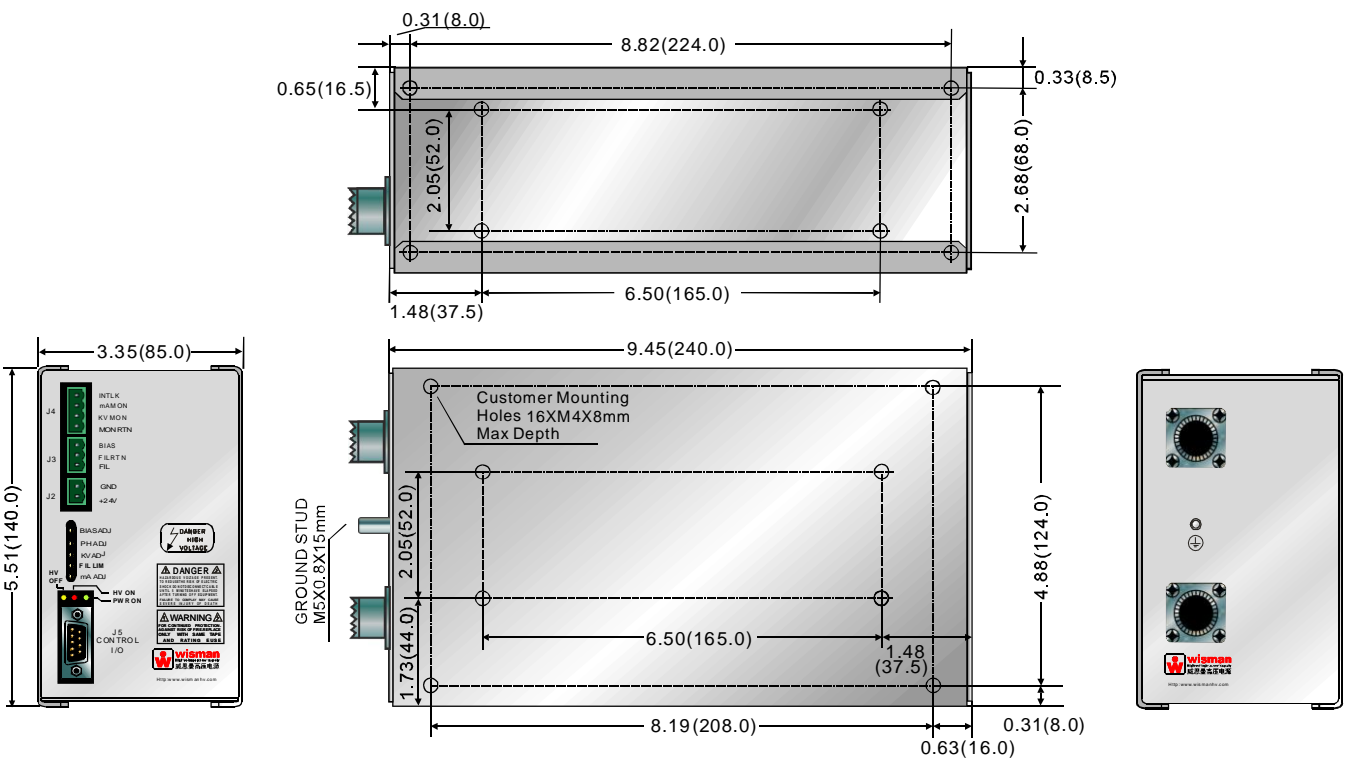
### How To Order

EXAMPLE:  
XRW50P75-2/USB/RS232  
 XRW Series; 50 50KV; P positive high voltage;  
 75 75 Watts; 2 2mA; USB USB Interface;  
 RS232 RS-232 Interface.

#### DIMENSIONS: in.[mm]



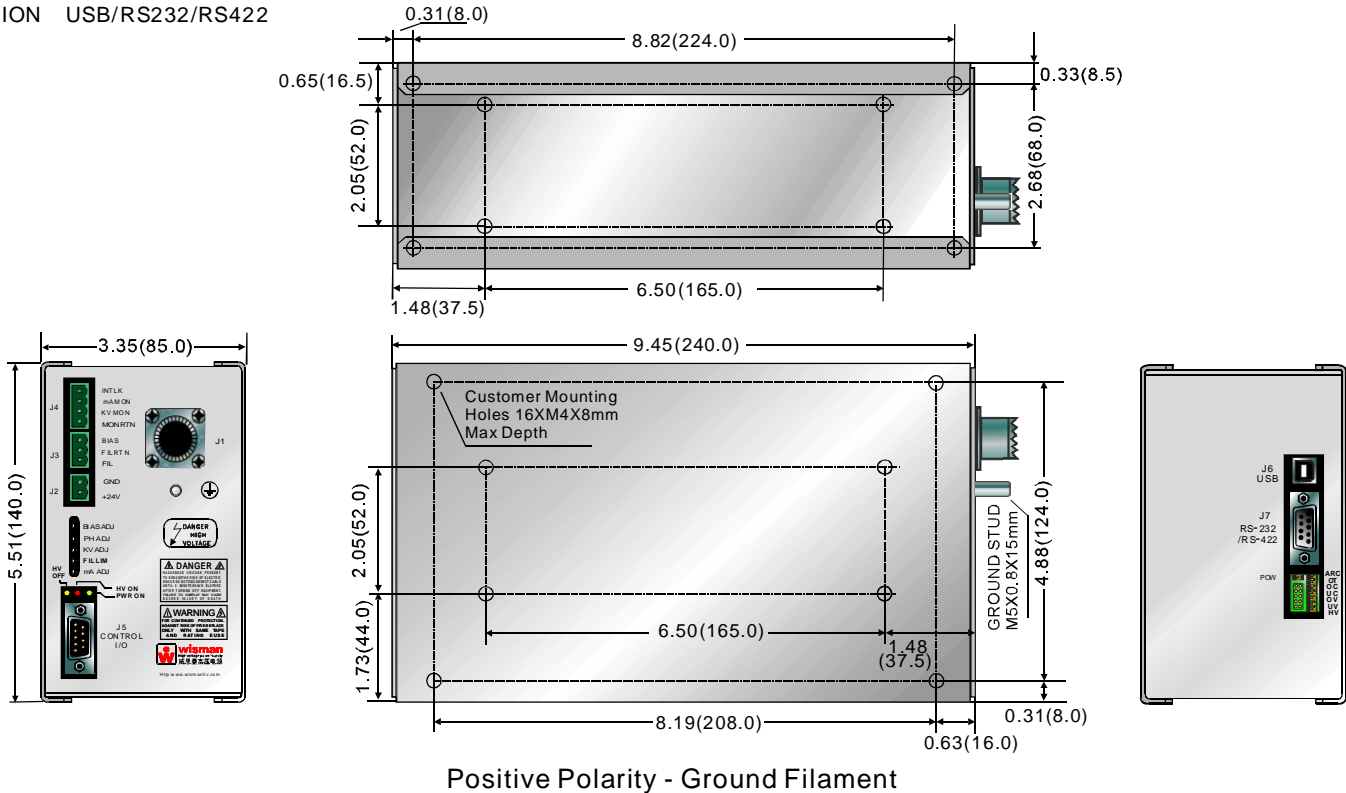
Positive Polarity - Ground Filament



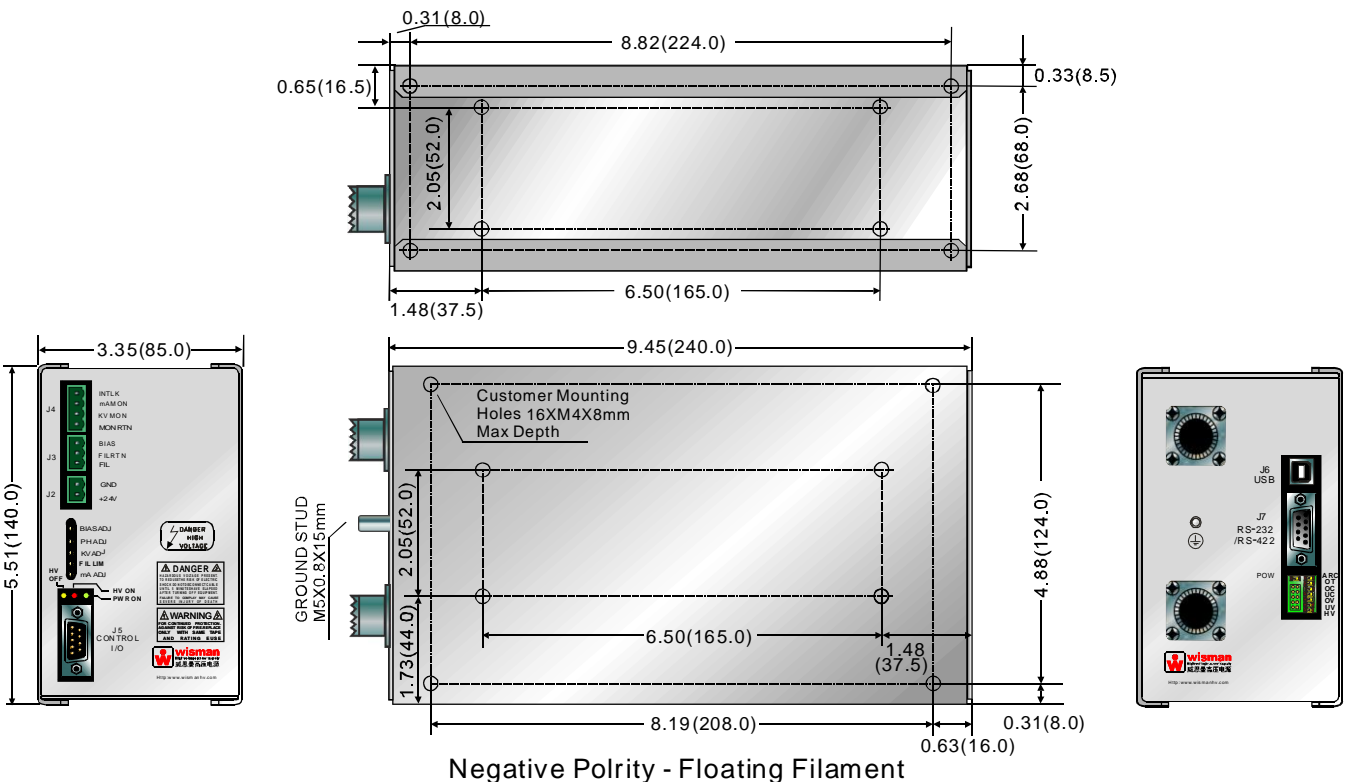
Negative Polarity - Floating Filament

#### DIMENSIONS: in.[mm]

OPTION USB/RS232/RS422



Positive Polarity - Ground Filament



Negative Polarity - Floating Filament