



- **OUTPUT VOLTAGES TO 130KV**
- **INTEGRATED GROUND REFERENCED FILAMENT SUPPLY**
- **LOW RIPPLE**
- **“HOT ANODE”**
- **POSITIVE POLARITY**
- **LOCAL & REMOTE PROGRAMMING**
- **OEM CUSTOMIZATION AVAILABLE**

www.spellmanhv.com/manuals/XLG

Spellman's XLG Series of X-ray generators are well regulated high voltage power supplies with output voltages to 130kV and very low ripple achieved through the use of advanced resonant conversion techniques. Extremely stable voltage and emission current outputs result in significant performance improvements over previously available technology. The XLG Series provides all the power, control and support functions required for X-ray applications including a regulated dc filament supply. These units incorporate local and remote programming, monitoring, safety interlock, short-circuit and overload protection.

TYPICAL APPLICATIONS

- Plating Measurement
- Mineral Analysis
- X-ray Fluorescence

OPTIONS

- APT** Adjustable Power Trip
- AT** Arc Trip
- SS(x)** Non-Standard Slow Start
- NSS** No Slow Start
- IO** Instant ON
- LL(x)** Extra Length HV Cable
- SL** Slides

SPECIFICATIONS

Input Voltage:

115Vac±10%, 50-60Hz single phase or
220Vac±10%, 50-60Hz single phase.

Voltage and Current Control:

Local: continuously adjustable from zero to maximum rating via a ten-turn potentiometer with a lockable counting dial.

Remote: 0 to +10Vdc proportional from 0 to full output.
Accuracy: ±1%. Input Impedance: 10Mohm.

Filament:

Specify at time of order:
FH: 9A, 3V.
FL: 3A, 3V.
Preheat level is 0.45 amps in standby

Voltage Regulation:

Load: 0.005% of full output voltage no load to full load.
Line: 0.005% for input voltage range change.

Current Regulation:

Load: 0.05% of full current ±100µA from 0 to full voltage.
Line: 0.05% of rated current over specified input range.

Ripple:

0.03% rms below 1kHz.
0.75% rms above 1kHz.

Temperature Coefficient:

100ppm/°C.

Stability:

0.01%/8 hrs after 1/2 hour warm-up.
0.02% per 8 hours (typical).

Cooling:

Free air convection.

Metering:

Digital voltage and current meters (3.5 digits),
1% accuracy.

HV Output Cable:

10' (3.3m) of shielded HV cable removable at rear.

I/O Connectors:

25 pin D-type for control interface with mating connector provided.

Dimensions:

30 to 60kV:
3.5"H x 19"W x 19"D (8.9cm x 48.3cm x 48.3cm).
80 to 130kV:
3.5"H x 19"W x 24"D (8.9cm x 48.3cm x 61.0cm).

Regulatory Approvals:

Compliant to 2004/108/EC, the EMC Directive
and 2006/95/EC, the Low Voltage Directive.

FRONT PANEL STATUS INDICATORS:

- | | |
|------------------|----------------------|
| Overvoltage | Voltage Control Mode |
| Overtemperature | Current Control Mode |
| Regulation Error | Interlock Open |
| Arc | Interlock Closed |
| HV ON: Red | HV OFF: Green |

XLG SELECTION TABLE 0.1mA, 0.2mA , 0.5mA

kV	0.1mA	0.2mA	.5mA
30	XLG30P3*	XLG30P6*	XLG30P15*
35	XLG35P3.5*	XLG35P7*	XLG35P17.5*
40	XLG40P4*	XLG40P8*	XLG40P20*
50	XLG50P5*	XLG50P10*	XLG50P25*
60	XLG60P6*	XLG60P12*	XLG60P30*
80	XLG80P8*	XLG80P16*	XLG80P40*
100	XLG100P10*	XLG100P20*	XLG100P50*
120	XLG120P12*	XLG120P24*	XLG120P60*
130	XLG130P13*	XLG130P26*	XLG130P65*

*Specify FH for High power (27W) filament, FL for Low power (9W) filament.

XLG SELECTION TABLE 1.0mA, 2.0mA, 3.0mA

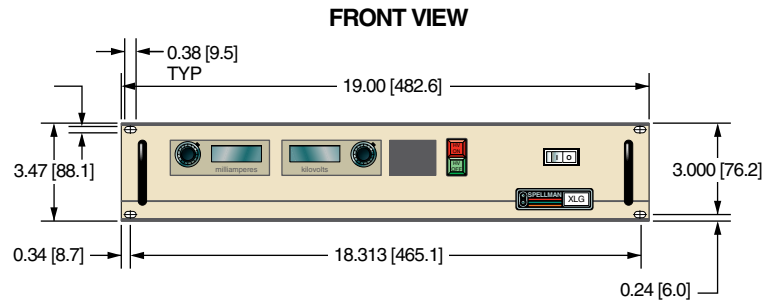
kV	1.0mA	2.0mA	3.0mA
30	XLG30P30*	XLG30P60*	XLG30P90*
35	XLG35P35*	XLG35P70*	XLG35P105*
40	XLG40P40*	XLG40P80*	XLG40P120*
50	XLG50P50*	XLG50P100*	XLG50P150*
60	XLG60P60*	XLG60P120*	XLG60P180*
80	XLG80P80*	XLG80P160*	---
100	XLG100P100*	XLG100P200*	---
120	XLG120P120*	XLG120P240*	---
130	XLG130P130*	XLG130P260*	---

*Specify FH for High power (27W) filament, FL for Low power (9W) filament.

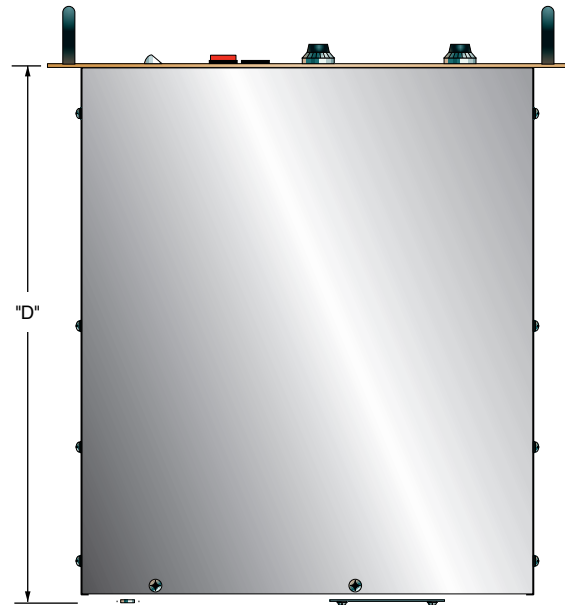
XLG CONNECTOR 25 PIN

JB1	SIGNAL	SIGNAL PARAMETERS
1	Power Supply Common	Signal Ground
2	External Inhibit	Ground=Inhibit, Open=HV On
3	External Interlock	+15V at Open, <15mA at Closed
4	External Interlock Return	Return for Interlock
5	Current Monitor	0 to 10V=0 to 100% Rated Output
6	kV Test Point	0 to 10V=0 to 100% Rated Output
7	+10V Reference	+10V, 1mA Max
8	Remote Current Program In	0 to 10V=0 to 100% Rated Output
9	Local Current Program Out	Front Panel Program Voltage
10	Remote Voltage Program In	0 to 10V=0 to 100% Rated Output
11	Local Voltage Program Out	Front Panel Program Voltage
12	Power Monitor	0 to 10V=0 to 100% Rated Output
13	Remote Power Program In	(Optional)
14	Local HV Off Out	+15V at Open, <25mA at Closed
15	HV Off	Connect to HV OFF for Fp Operation
16	Remote HV On	+15V, 10mA Max=HV Off
17	Remote HV Off Indicator	0=HV On, +15V, 10mA Max=HV Off
18	Remote HV On Indicator	0=HV Off, +15V, 10mA Max=HV On
19	Remote Voltage Mode	
20	Remote Current Mode	Open Collector 50V Max, 10mA Max
21	Remote Power Mode	On=Active
22	Remote PS Fault	0=Fault, +15V, 0.1mA Max=No Fault
23	+15V Output	+15V, 100mA Max
24	Power Supply Common	Signal Ground
25	Shield Return	Shield Return

DIMENSIONS: in.[mm]



TOP VIEW



BACK VIEW

