

High Stability & Ultra Low Noise HV Power Supply

J4 series ■■■

— 0.5kV to 5kV/2.5W to 4W —

- > UL1950-EN60950-1(TÜV) approved
- > Ultra low noise, high stability
- > External output control and output monitor
- > Extensive protection
- > Broad output range

APPLICATIONS

- * PMT
- * MASS Spectrometry
- * Electron Beam / Ion Beam
- * Radiation Counter



SUMMARY

The J4 series is a high power (4W) PMT power supply featuring ultra low noise (2mV). It is also an ideal choice for photo tubes, GM tubes, and radiation counters.

LINEUP

Output voltage (kVdc)	Output current (mA)	Model				Ripple (mVp-p)	Voltage Monitor	
		Positive output		Negative output			output(V)	impedance(Ω)
0 to 0.5	8	J4-0.5P	J4-0.5P-LX	J4-0.5N	J4-0.5N-LX	5	0 to 5	50K
0 to 1	4	J4-1P	J4-1P-LX	J4-1N	J4-1N-LX	2	0 to 1	10K
0 to 1.5	2.5	J4-1.5P	J4-1.5P-LX	J4-1.5N	J4-1.5N-LX	2	0 to 1.5	25K
0 to 2	2	J4-2P	J4-2P-LX	J4-2N	J4-2N-LX	2	0 to 2	25K
0 to 3	1	J4-3P	J4-3P-LX	J4-3N	J4-3N-LX	3	0 to 3	30K
0 to 5	0.5	J4-5P	J4-5P-LX	J4-5N	J4-5N-LX	10	0 to 5	100K

SPECIFICATIONS

Input Voltage	+24V to +30V @400mA typ.
Output Voltage Control	An external 5kΩ potentiometer or a remote 0 to +9V source
Local programming	Internal multi-turn potentiometer
Regulation	Line : 0.001% for ±1% input change Load : 0.001% for 0 to 100% load change
Stability	50ppm/Hr 200ppm/8Hr
Temperature coef.	50ppm/°C
Monitors	Voltage monitor See table for details
Current limit	120% of maximum output current
Protection	Short circuit and arc protected
Input terminal	J4 : 8 pin connector mating connector and pins are assorted Recommendation : wire for pin ① ② ⑥ are AWG18 wire for pin ③ ④ ⑤ ⑦ ⑧ are AWG22 to 18 Crimp Tooling for Molex crimp terminal 2478, 2578 J4-LX : 12 pin card edge connector (mating connector is assorted)
HV output cable	50cm(1.6 feet) shielded cable(flying lead)
Temperature range	Operating : 0 to 50 °C Storage : -20 to 60 °C
Humidity	20 to 80%RH(no condensation)

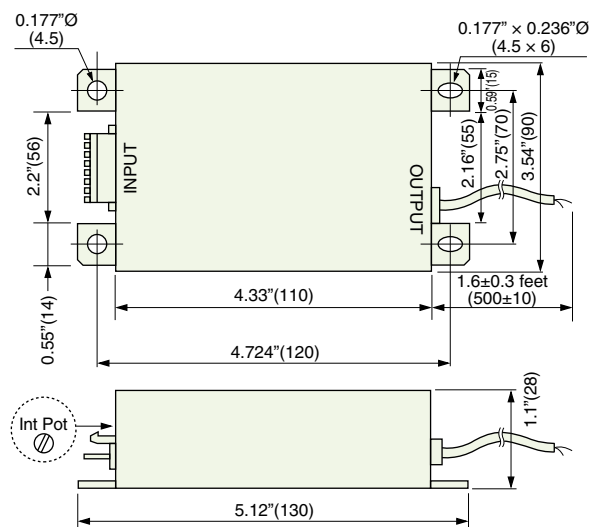
OPTIONS

- L15** Vin ±12V to ±18V @400mA typ.
 - LMH** MHV OUTPUT CONNECTOR
 - LSH** SHV OUTPUT CONNECTOR
- Add "-L15" "-LMH" "-LSH" to the Model number at time of order.
(i.e. J4-0.5P-LX15MH)
- CN8R** Assembled input connector(accessory) for J4
(connector with 25cm flying leads)

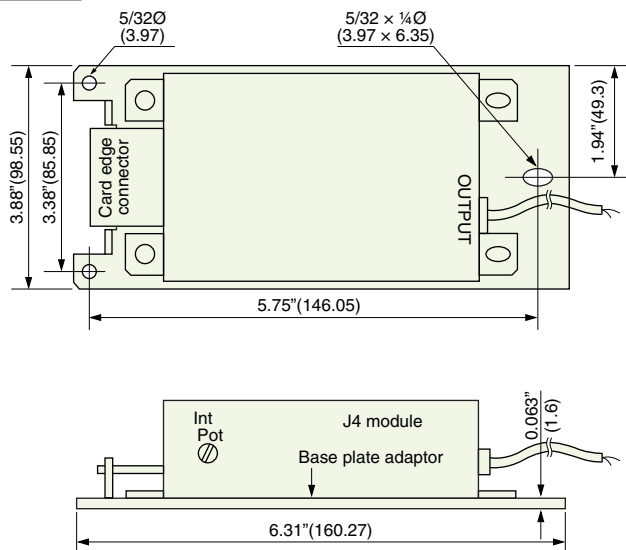
Note : These specifications are at the maximum rated output after a 1/2Hr warm-up period unless otherwise specified.

DIMENSIONS inch(mm)

J4

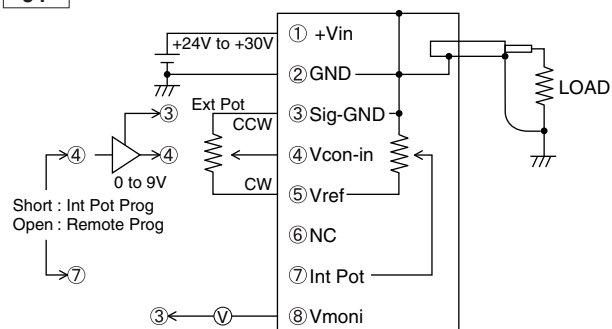


J4-LX

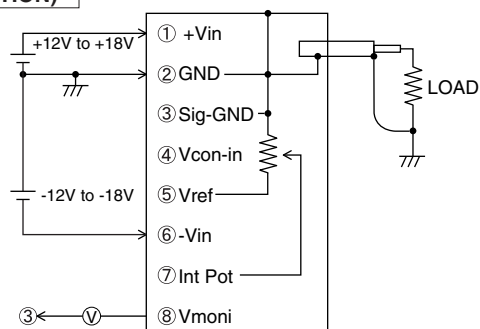


CONNECTION DIAGRAM

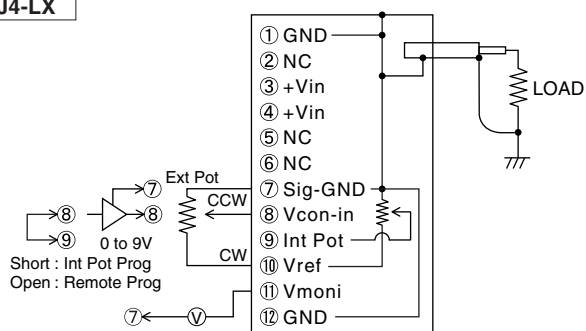
J4



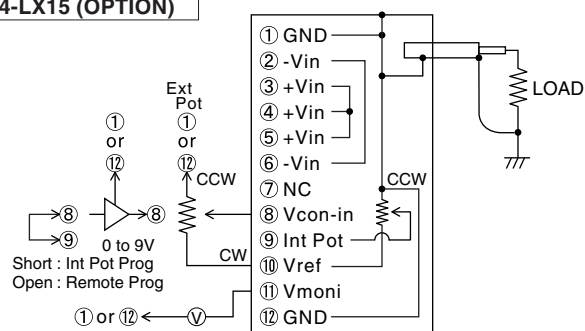
J4-L15 (OPTION)



J4-LX



J4-LX15 (OPTION)



J6 series

— 1kV to 5kV/6W —

- > Ultra low noise, high stability
- > High power 6W
- > Output control with external voltage
- > Extensive protection circuit



APPLICATIONS

- * PMT
- * MASS Spectrometry
- * Electron Beam / Ion Beam
- * Radiation Counter

SUMMARY

The J6 series is a high power(6W) PMT power supply featuring ultra low noise(5mV). It is also a marvelous choice for photo tubes, GM tubes, and radiation counters.

LINEUP

Output Voltage (kV)dc	Output Current (mA)	Output Power (W)	MODEL	Ripple (mVp-p)
0 to 1	6	6	J6-1*	5
0 to 1.5	4	6	J6-1.5*	5
0 to 2	3	6	J6-2*	5
0 to 3	2	6	J6-3*	10
0 to 5	1.2	6	J6-5*	20

*P for Positive, N for Negative Output Polarity

SPECIFICATIONS

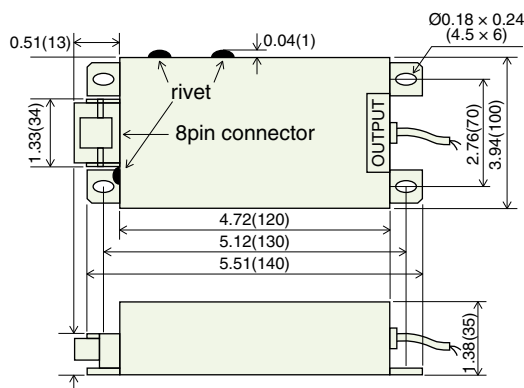
Input Voltage	+24Vdc $\pm$ 1V / 600mA typ.
Output Voltage Control	By external 0 to +10V input
Regulation	Line : $\pm$ 0.005% for $\pm$ 1V input change Load : 0.005% for 10 to 100% load change
Stability	50ppm/Hr 100ppm/8Hr
Temperature coef.	50ppm/ $^{\circ}$ C
Protection	Short circuit and arc protected
Input terminal	8 pin connector
Accessories	mating connector and pins Recommendation : wire for pin ①, ② are AWG18 wire for pin ③ to ⑧ are AWG22 to 18 Crimp Tooling for Molex crimp terminal 2478, 2578
HV output cable	50cm(1.6 feet) RG-59u cable
Temperature range	Operating : 0 to 45 $^{\circ}$ C Storage : -20 to 75 $^{\circ}$ C
Humidity	20 to 80%RH(no condensation)

Note : These specifications are at the maximum rated output after a 1/2 Hr warm-up period unless otherwise specified.

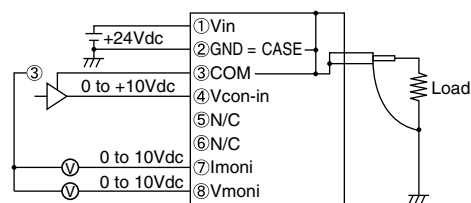
OPTIONS

- LMH MHV OUTPUT CONNECTOR
- LSH SHV OUTPUT CONNECTOR
- CN8R Assembled input connector(accessory)
(connector with 25cm flying lead)

DIMENSIONS inch(mm)



CONNECTION DIAGRAM



OUTPUT MONITOR

Monitor	Output Polarity		Accuracy
	P	N	
Voltage	0 to +10Vdc	0 to -10Vdc	2.5%
Current	0 to -10Vdc	0 to +10Vdc	5%(INCL. offset)



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