

TXR1010 series High-voltage power supply for X-ray machine



50W, 25kV to 65kV, high precision, integrated filament power supply

Teslaman TXR1010 series high-voltage power supply is a special power supply for X-ray machines, which integrates an adjustable filament power supply with an output DC voltage 5.5V current 0.3A to 3.5A. High voltage and filament current can achieve linear and steady rise. TXR1010 series power supply can also be connected to an external potentiometer to achieve remote control of output voltage and current, and has external voltage and current display, high voltage output overvoltage and short-circuit protection, safety interlock and other functions.

- Output voltage from 25kV to 65kV
- Integrated adjustable filament power supply
- Overvoltage and output short circuit protection
- Voltage and current regulation function
- Remote control can adjust the emission current
- Safe interlock function
- It can be customized according to user requirements.

Typical applications:

Liquid level detection; film thickness measurement; PCB board detection; Kevex, Oxford, RTW, Superior, Varian, Trufocus, Keyuwei and other brands of cathodic grounded X-ray tubes.

Optional Functions:

AC	AC filament power supply
CPC	Constant power output

Specifications:

Input: DC24V±10%.

Send out: 25kV, 30kV, 50kV, 65kV four maximum voltage outputs

Optional, 0V to maximum voltage adjustable.

Voltage control:

Inside the power supply: the multi-turn potentiometer that comes with the power supply can set the output voltage

Set between 0V and the highest voltage.

External remote control: external 0 to 10V control signal can output from 0V

Adjust to the highest output voltage.

Emission current control:

Inside the power supply: the multi-turn potentiometer that comes with the power supply can power the electron beam current

Set to 0A to the highest current.

External remote control: external 0 to 10V control signal can current the electron beam

Set to 0A to the highest current.

DC filament power supply:The output current is 3.5A adjustable and the voltage is 5.5V.

Voltage adjustment rate:

Relative load: 0.01% (no load to rated load).

Relative input: ±0.01% (input voltage change is ±10%).

Current adjustment rate:

Relative load: 0.01% (no load to rated load)

Relative input: ±0.01% (input voltage change ±10%).

Ripple voltage: Under rated output conditions, it is better than 0.1% p-p.

Ambient temperature: 0 to +50°C when working, -20°C to +80°C when stored.

Temperature coefficient: Voltage and current are better than 100ppm/°C.

Stability: less than 0.05% every 8 hours after starting up for half an hour.

Voltage and current indication: 0 to +10V, the accuracy is 1% under rated output conditions.

External dimensions: 100mm wide, 160mm high and 254mm wide.

High-voltage cable:

High-voltage output connector: the recessed plastic insulation catheter and the probed high-voltage cable are connected by a metal connector with a diameter of 16mm. The total length of the high-voltage cable is 1 meter.

Input and output connectors:DB9 contains control signals.

Remote control of output voltage and current:External potentiometer can be used to use the power supply.10V Voltage reference remotely controls the output voltage and current.

Remote voltage indication:J4Including0Arrive10VThe voltage and current indicator signals can be connected to various digital or pointer meters.

TXR1010 series high-voltage power supply model selection table:

Output rating		Power supply model
kV	mA	Positive polarity
25	2.0	TXR1010P25-50
30	1.67	TXR1010P30-50
50	1.0	TXR1010P50-50
65	0.77	TXR1010P65-50

Voltage and current control DB9 connector J5:

J5	Signal	J5	Signal
1	10V reference voltage	6	Current control signal input
2	Spare	7	Current control signal output
3	Voltage control signal input	8	Spare
4	Voltage control signal output	9	Ground
5	Spare		

Voltage and current indicator connector J4:

J4	Signal	J4	Signal
1	Earth	3	Current indicator signal
2	Voltage indicator signal	4	Interlock control

Filament connector J3:

J3	Signal	J3	Signal
1	Voltage indicator signal	3	Backup or biased power supply
2	Filament power circuit		

24V power connector:

JP2	Signal	JP2	Signal
1	+24V	2	Ground

External dimensions:(mm)

