

TXB1800 Series

X-ray Source | 50kV,4W,X-ray Monoblock



- Compact design – ideal for handheld, portable and benchtop instruments
- Low power consumption – compatible with battery operation
- Easy to operate – analog control interface
- Integrated design – no high voltage cables
- Machined metal enclosure – precision mounting and alignment
- Patented X-ray Omnishield™ – 360 degree light weight radiation shielding
- Wide cone angle – 110 degree full width x-ray cone angle
- Threaded adapter for collimated applications – optional

Product Introduction:

Teslaman TXB1800 series x-ray monoblock is a fully integrated miniature 50 kV,4W x-ray generator designed specifically to be used as component of a handheld, portable, or benchtop x-ray instrument.

The source includes a miniature sealed x-ray tube with a transmission-type end window, a high voltage power supply, and control electronics contained in a compact grounded enclosure.

Typical Applications:

XRF Materials Analysis; Alloy and metal sorting ;ROHS and ELV compliance; Environmental analysis; Forensic science; Mining and geology; Art and archeology; Coating thickness; Lead detection; Quality control; Precious metal verification; X-ray Imaging ; Medical, dental, small animal; NDT ; Security, contraband;

Specification Description:

Input	5-12VDC.
Output	Customize from 5kV to 50kV, maximum power 4W.
Cathode Type	Tungsten filament.
X-ray window	Be, 125μm.
Target Type	Transmission.
Available Targets	Au, Ag, Rh, W
Depth to focal spot	2.4mm.
X-ray cone Angle	110°.
HV polarity	Grounded anode.
Stability	Less than 0.1% every 8 hours after half hour warm-up.
Electrical Insulation	Silicone potting.
Radiation Shielding	Self-shielded.
Environmental	Operational: -10°C to +50°C. Storage: -25°C to +85°C.
Cooling	Air cooled.
Humidity	90% max(non-condensing).
Weight	about 365g.

Description of Model Code

The model code represents the performance and parameters of the power supply, which are:

Maximum output voltage in kV;

Maximum output power in W;

Output polarity, N for negative output;

TXB1800 N 50 - 4

Model Polarity Maximum voltage Maximum power

TXB1800 Series High Voltage Power Supply Model Selection Table:

Output Rating		Model of Power Supply
kV	mA	
50	0.08	TXB1800N50-4

Analog Interface:

PIN	Description
1	V+
2	V+
3	GND
4	GND
5	Tube I Control
6	Tube HV Control
7	Tube Ready
8	Tube Enable
9	Tube HV Monitor
10	Tube I Monitor

Dimensions: mm

