



50kV Cable with MAGNUM® X-ray Source

Applications

Materials Characterization and Identification (XRF)

- Metal and alloy sorting
- Mining and geology
- Environmental analysis
- Lead in paint
- Regulatory (RoHS/WEEE)
- Art and archeometry
- R&D

X-ray Imaging

- Medical R&D, small animal imaging
- Security
- Radiographic inspection

Moxtek® manufactures low-power, miniature x-ray sources for a variety of applications including handheld and benchtop instruments. Moxtek sources are small, lightweight, and can be packaged into custom enclosures. The MAGNUM® x-ray source produces high output with a small spot size.

Features	Benefits
Small, compact design	Close coupling of source to detector
Lightweight	Portable, versatile, easy to integrate
Stable output	Enables precise calibrated measurements
Low power consumption	Long battery life
Low spectral contamination	High precision of analysis
High x-ray output	Short sampling time
Customized configurations	Flexible form factor

50kV MAGNUM Specifications

Mechanical Specifications:

Tube Type: Metal-ceramic

Cathode Type: Tungsten filament

Operating Temperature: -10 to +50 °C

Storage Temperature: -25 to +85 °C

Cooling: Conduction

HV Insulation: Silicone potting

Weight: 1.1 lb. (500g)

Available Targets: Ag, W, Au, Pd, Ta, Rh

X-ray Tube Characteristics:

HV Polarity: Grounded anode

High Voltage: -10 to -50kV

Beam Current: 0 to 0.20mA

Total Power: 10.0 watts (maximum)

Stability: <1.0% RSD

Window: Beryllium, 0.25mm thick

Battery Input Power: 9-12 VDC



Ordering Information

Part Number	Anode Type
TUB00050-AG1	Ag
TUB00050-W01	W
TUB00050-AU1	Au
TUB00050-PD1	Pd
TUB00050-TA1	Ta
TUB00050-RH2	Rh

Standard Package

- MAGNUM® tube potted in a brass shield
- High voltage power supply
- Standard high voltage wiring length of 11.5 inches

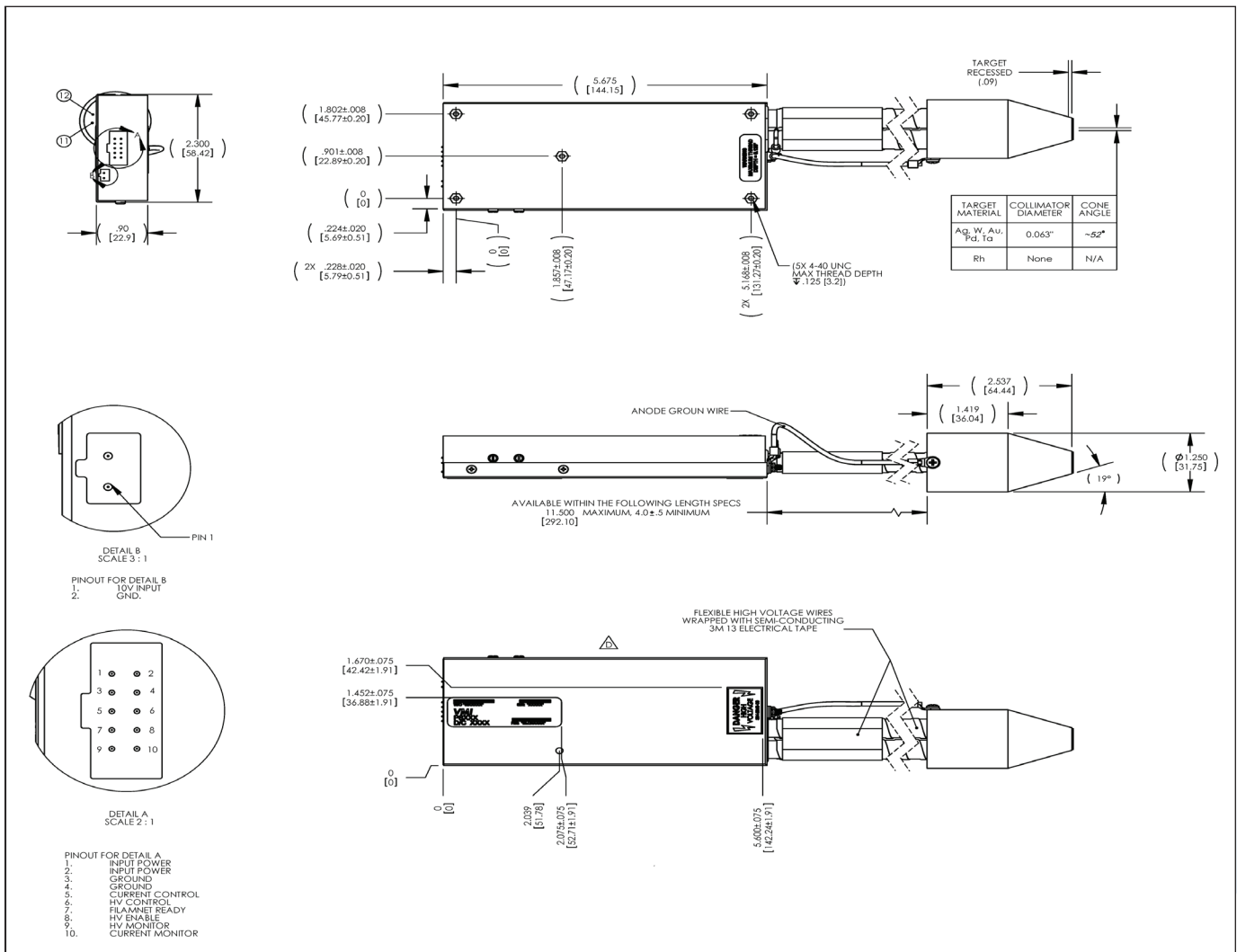
Source Controller Options

- FTC-200 Controller. Source can also operate using analog DC voltage signals.

Customizable Options

- Variable high voltage wiring length (4.0 to 11.5 inches)
- Target materials

50kV MAGNUM® Mechanical Drawing



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