



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

*See reverse side for customizable options

Mechanical Specifications

Tube Type: Metal-ceramic

Cathode Type: Tungsten filament

Operating Temperature: -10 to +50 °C

Storage Temperature: -25 to +85 °C

Cooling: Conduction

Weight: 500g (typical)

Available Targets: Ag, Cr, Rh, W

X-ray Tube Characteristics

HV Polarity: Grounded anode

High Voltage: -10 to -50kV

Beam Current: 5 to 200µA

Total Power: 10.0 watts (maximum)

Stability: <1.0% RSD

Window: Beryllium, 0.25mm or 0.125mm thick

Input Power: 9-12 VDC

Focal Spot: 500 to 800µm FWHM (typical)

RoHS Compliant: RoHS3

Standard Warranty: 1 year or 2000 operating hours

Ordering Information

Part Number	Anode Type	Be Foil Thickness (µm)
TUB00050-AG1	Ag	250
TUB00050-AG2	Ag	125
TUB00050-CR6	Cr	250
TUB00050-RH2	Rh	125
TUB00050-RH7	Rh	125
TUB00050-W01	W	250
TUB00050-W07	W	250

Standard Package

- MAGNUM® tube potted in a brass shield
- High voltage power supply potted on an aluminum shell
- Standard high voltage wiring length of 292mm, (11.5 inches)
- High voltage insulation- silicone potting

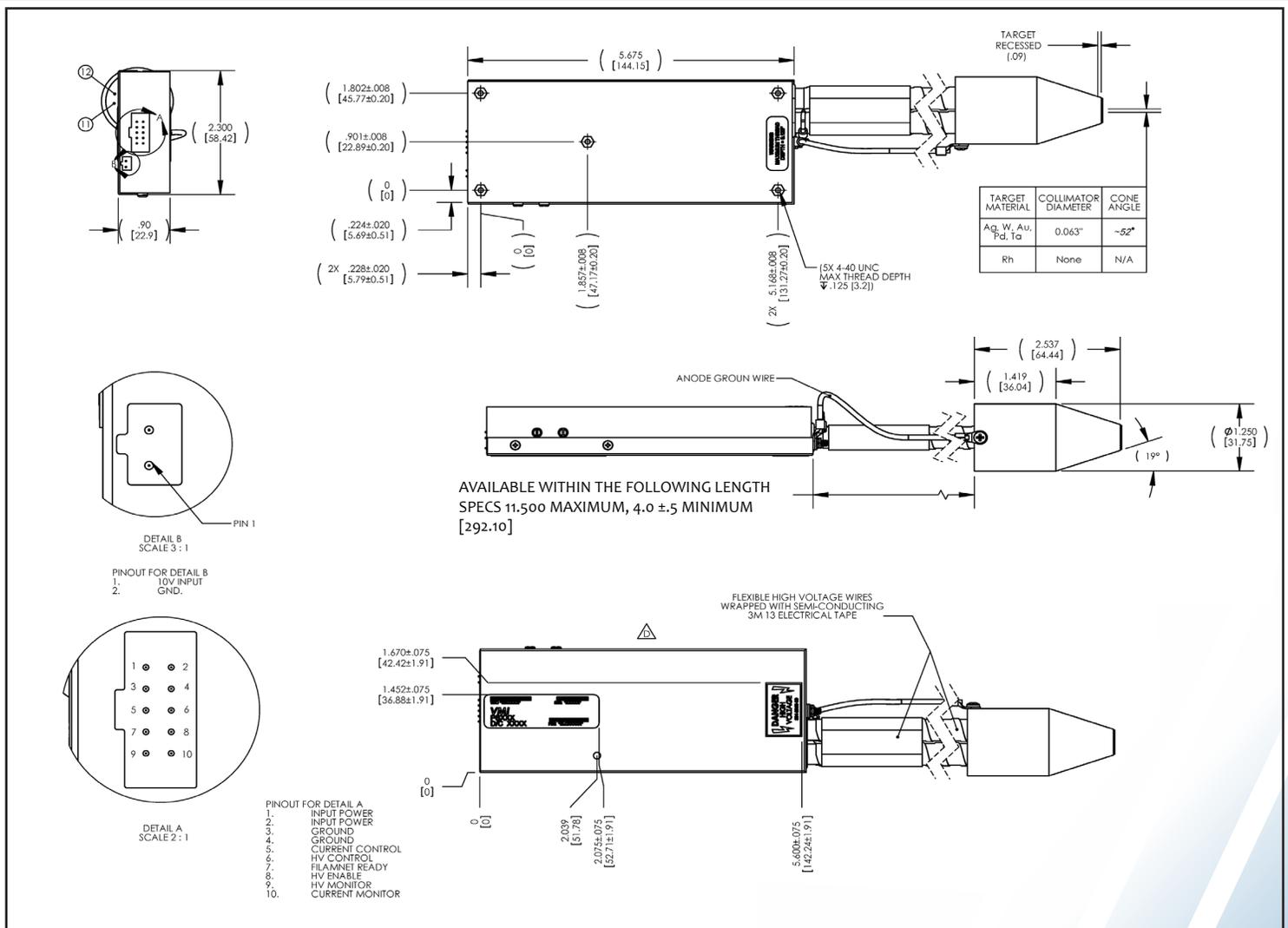
Source Controller Options

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

*Customizable Options

- Variable high voltage wiring length 100-292mm, (4.0 to 11.5 inches)
- Additional target materials available
- Vacuum compatible option also available, please inquire
- Side window for imaging applications

50kV MAGNUM® Mechanical Drawing



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