



40kV MAGNUM® Reflection Source

Applications

X-ray Imaging

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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



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. Reflection x-ray sources offer higher output with a smaller spot size compared to transmission sources.

Features	Benefits
Small, compact design	Close coupling of tube to detector or sample
Lightweight	Portable, easy to integrate
Stable output	High precision of measurements, low detection limits
Low power consumption	Long battery life
Low spectral contamination	High precision of analysis
High x-ray output	Short sampling time
Small spot size and short spot-to-object distance	Good geometrical magnification and spatial resolution

Mechanical Specifications

Tube Type: Metal-ceramic

Cathode Type: Tungsten filament

Ambient Temperature: -10 to +50 °C

Storage Temperature: -40 to +60 °C

Cooling: Conduction

HV Insulation: Silicone potting

Weight: 1 lb. (450g)

Source Characteristics

HV Polarity: Grounded anode

High Voltage Potential: -4 to -40kV

Beam Current: 0 to 0.10mA

Total Power: 4.0 watts (maximum)

Focal Spot Size: Typical 300µm

Stability: < 1.0% RSD

Window: Beryllium, 0.127mm thick

Input power: 8W nominal (7-12 VDC)

Standard Warranty: One year

Ordering Information

Part Number Anode Type

TUB00046-CR5	Cr
TUB00046-CU5	Cu
TUB00046-MO5	Mo
TUB00046-W05	W

Please contact Moxtek for price and delivery information.

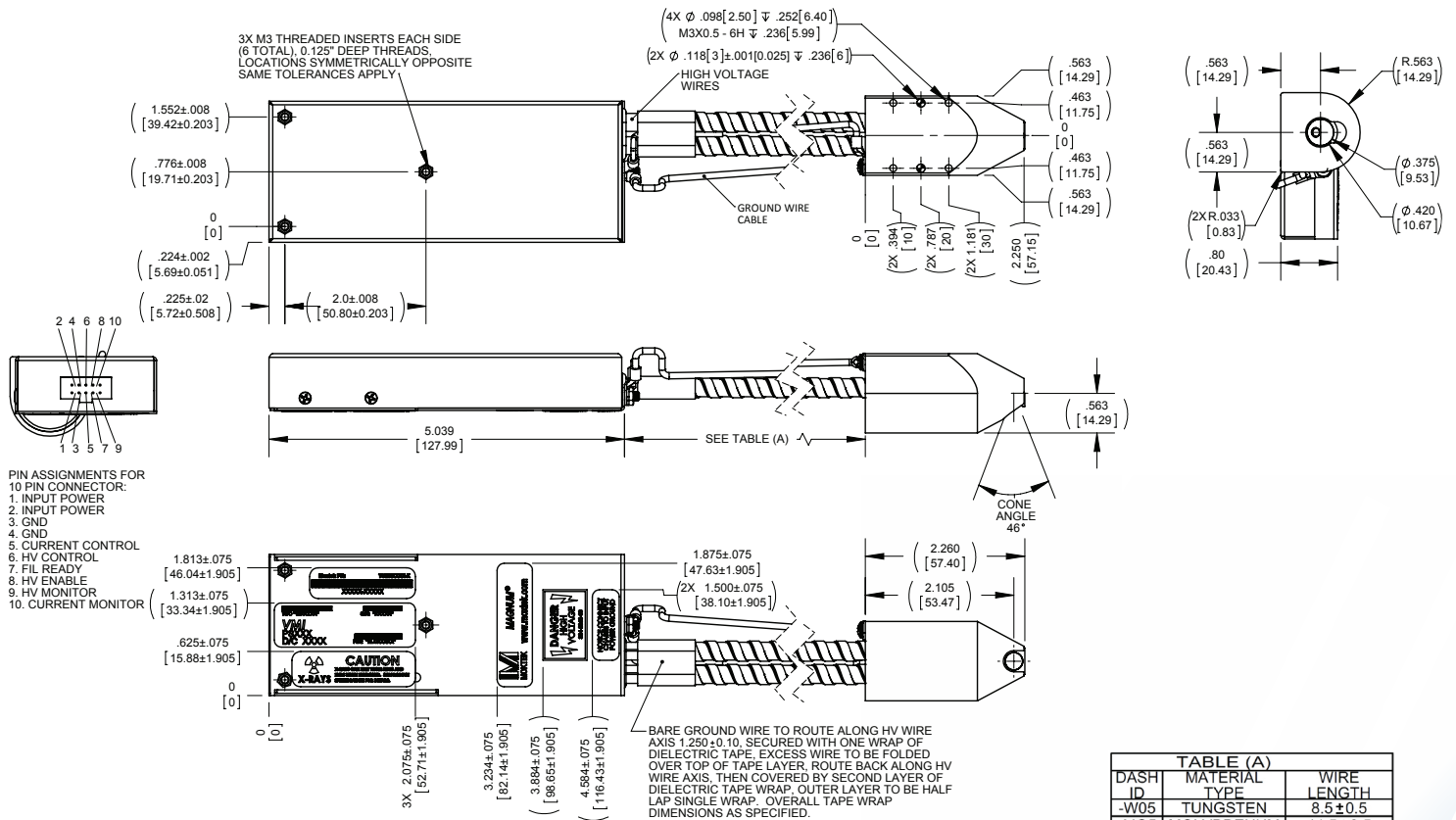
Standard Package

- Reflection Target
- MAGNUM® reflection target tube potted in an aluminum shield
- High voltage power supply
- High voltage wire length of 11.5 inches

Source Controller Options

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

40kV MAGNUM® Reflection Source Mechanical Drawing



DASH ID	MATERIAL TYPE	WIRE LENGTH
-W05	TUNGSTEN	8.5±0.5
-MO5	MOLYBDENUM	11.5±0.5
-CR5	CHROME	11.5±0.5
-CU5	COPPER	11.5±0.5

Measurements are in inches



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TUB-DATA-1001, Rev C
 Subject to technical change without notice