



Moxtek® MAGPRO 60kV & 70kV 12W x-ray sources are designed for portable and benchtop XRF instruments. The focal spot size is ideal for x-ray imaging applications.

Applications

Materials Characterization & Identification

XRF

- Elemental composition

XRD

- Powder diffraction
- Residual stress

X-ray Imaging

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

Features

- Small, compact design
- Lightweight
- Stable output
- Multiple communication protocols
- High x-ray output
- Small spot size
- 70kV 12W
- Wide cone angle

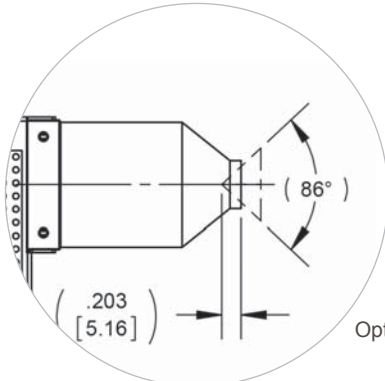
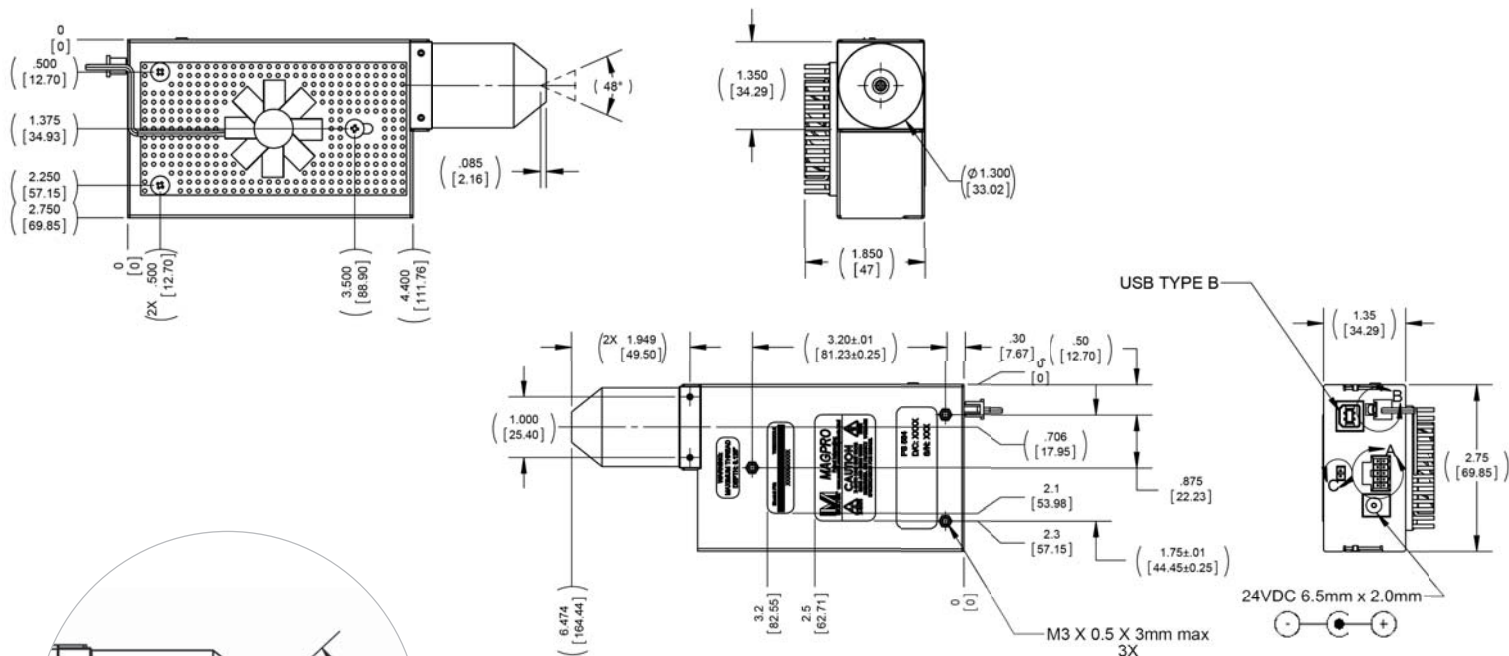
Specifications

	60kV	70kV (Releasing Soon)	
	XRF	Imaging	XRF
Tube type:	Metal-ceramic		
Operating Temp:	-10° to +50° C	-10° to +50° C	-10° to +50° C
Storage Temp:	-40° to +85° C		
Cooling:	Forced air		
Weight:	≤825g	≤900g	≤900g
Available Targets:	W, Rh, Ag, Cr, Cu, Mo	W	W, Mo
HV Polarity:	Grounded anode		
High Voltage Potential:	4 to 60kV	50 to 70kV	40 to 70kV
Beam Current:	10 to 1000µA	10 to 240µA	10 to 300µA
Maximum Power:	12 watts		
Focal Spot Size:	Typical ~400µm	Typical ~500µm	Typical ~500µm
Window:	Beryllium 250µm thick		
X-ray Beam Cone Angle:	~48°	~86°	~48°
Radiation Leakage:		2mR/h at 50mm	<10mR/h at 50mm
Input Power:	24 VDC, 1.1A		
Standard Warranty:	One year		

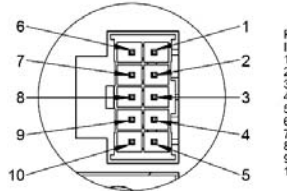
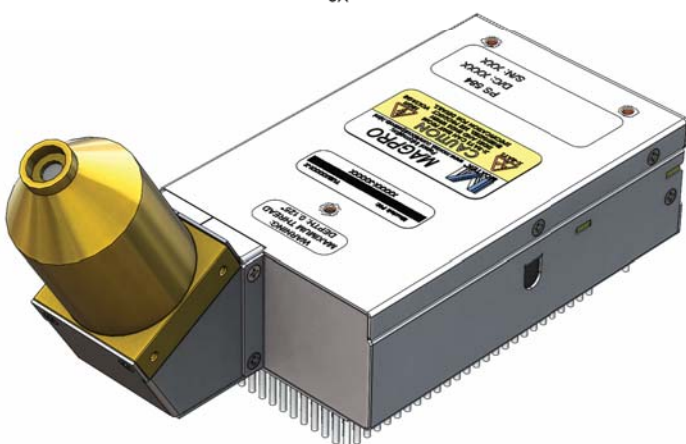
Benefits

- Close coupling of detector/ source
- Portable, easy to integrate
- High precision of measurements, low detection limits
- Improved heavy element analysis
- Short sampling time
- Possible coupling with optics, good image resolution
- Improved light element analysis
- Energy and flux appropriate for backscatter imaging (70kV only)
- Large flat field for imaging (70kV only)

12W MAGPRO Mechanical Drawings

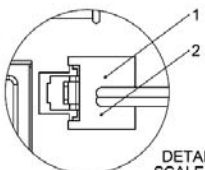


Optional Collar, 70kV only



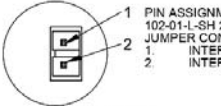
- PIN ASSIGNMENTS FOR SAMTEC IPL-105-01-LD-RA-K 10 PIN CONNECTOR:**
1. HV ENABLE
 2. FILAMENT READY
 3. HV CONTROL
 4. HV MONITOR
 5. CURRENT CONTROL
 6. CURRENT MONITOR
 7. GROUND
 8. GROUND
 9. FILAMENT ENABLE
 10. INPUT VOLTAGE

DETAIL A SCALE 2 : 1



- PIN ASSIGNMENTS FOR 2 PIN ACCESSORY FAN POWER CONNECTOR:**
1. +12 V POWER (RED)
 2. GROUND (BLK)

DETAIL B SCALE 2 : 1



- PIN ASSIGNMENTS FOR SAMTEC TSM-102-01-L-SH 2 PIN DIGITAL INTERLOCK JUMPER CONNECTOR:**
1. INTERLOCK SEND(NC)
 2. INTERLOCK RECEIVE(GND)

DETAIL C SCALE 2 : 1

	Application	Part Number	Angle	Control Type	Target
				XX	XXX
60kV	XRF (no collar)	TUB00140-XXX TUB00141-XXX TUB00142-XXX	Straight	Analog (A) I ² C (I) SPI (S)	AG2 (Lt. Silver) RH3 (Rhodium) CR6 (Chromium) CU6 (Copper) WO6 (Tungsten) MO6 (Molybdenum) WO6 (Tungsten)
		TUB00143-XXX TUB00144-XXX TUB00145-XXX	60 degrees		
		TUB00146-XXX TUB00147-XXX TUB00148-XXX	90 degrees		
70kV	Imaging (collar)	TUB00153-XX-XXX	Straight (S) 60 degrees (6) 90 degrees (9)	Analog (A) I ² C (I) SPI (S)	WO6 (Tungsten)
Not Released	XRF (no collar)	TUB00154-XX-XXX			WO6 (Tungsten) MO6 (Molybdenum)



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