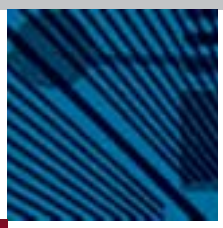
**Thermo Electron Corporation–the one source for x-ray generation. Thermo's Kevex X-Ray line has been providing quality x-ray sources to x-ray markets since 1978. We are known and respected worldwide for our innovation in x-ray source integration and microfocus technology.**

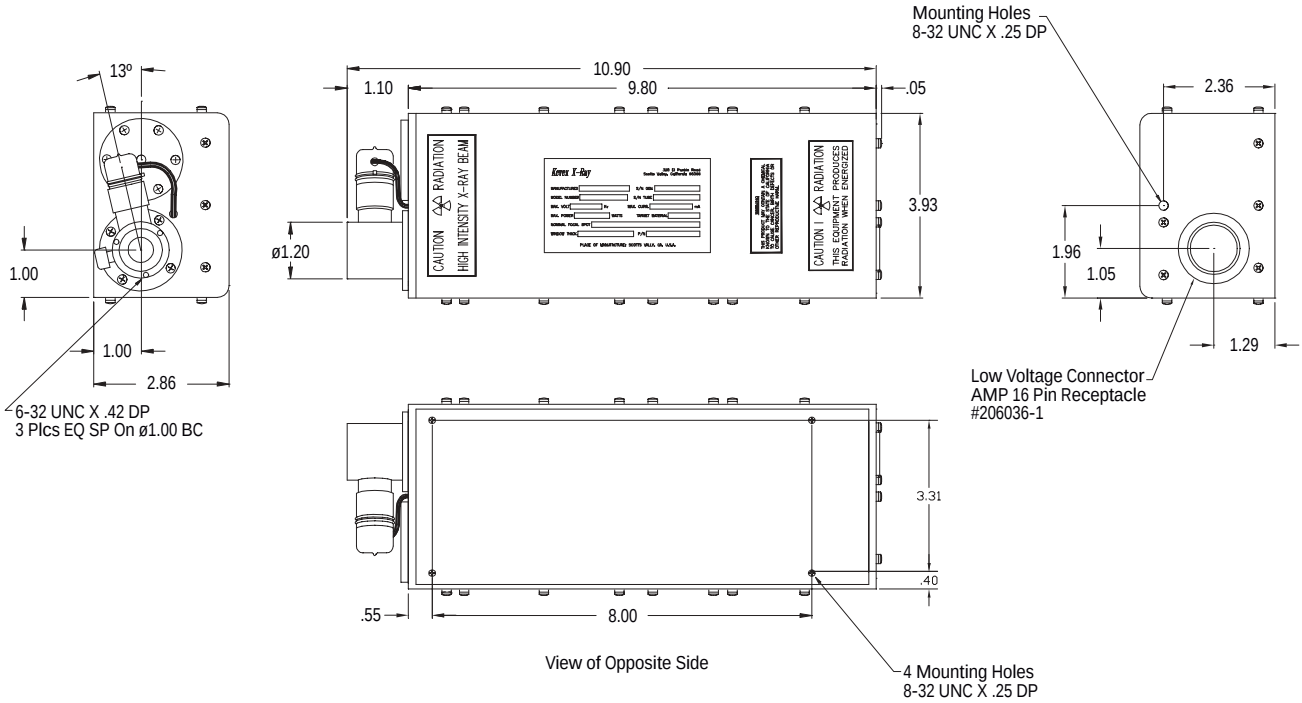
# Kevex™ PXS5-724EA

MicroFocus Portable X-Ray Source
70 kV, End Window



The Kevex PXS5-724EA is a constant potential, continuous duty microfocus portable x-ray source for use in high resolution radiographic and real time imaging applications. The end window design and short target-to-window spacing facilitate the generation of high resolution direct x-ray magnified images from any size object. The Kevex PXS5-724EA combines the x-ray tube and high voltage power supply into one compact package that is powered from a 12 VDC source.

A matching digital or analog controller is available for driving the Kevex PXS5-724EA as well as for adjusting and monitoring both target voltage and electron beam current.




**All dimensions in inches**

# Product Specifications

## Kevex PXS5-724EA

**Maximum Target Voltage**
70 kV

**Minimum Target Voltage to Obtain Maximum Current**
20 kV

**Maximum Electron Beam Current**
0.1 mA

**Spot Size and Power Dissipation**
< 20µ @ 7 watts

**Input Voltage**
12 ± 3 VDC

**Input Current**
2.4 amps at nominal input voltage

**Target Material**
Tungsten

**Target Angle**
55 degrees from incident beam to plane of target surface.

**Target Type**
Solid

**Window Material and Thickness**
Beryllium - 0.005 inches (0.13 mm)

**Window Diameter**
0.37 inches (9.4 mm)

**X-Ray Cone of Illumination**
34 degrees inclusive

**Target to Window Spacing**
0.48 inches (12.2 mm)

**Cooling Requirement**
Cooling airflow is required to keep the base-plate temperature below 55 °C. Maintaining a cooler temperature is recommended for greater stability and longer life.

**Maximum Baseplate Temperature**
50 °C

**Radiation Shielding**
The user must provide adequate shielding in the exposed tube area. Shielding of the housing is sufficient to ensure that the x-ray leakage is less than 0.5 mR/hour measured one inch away from any part of the housing.

**Recommended Shielding**
Lead, 0.15 inches thick (3.8 mm).

**Tube Type**
Sealed, Metal-Glass

**Electron Emission Source**
Dispenser Cathode

**Duty Cycle**
Continuous

**High Voltage Insulation**
Diala Oil

**Typical X-Ray Flux at 70 kV**
13 R/minute at 7 watts
Measured at a distance of one foot with Keithley 96035B ion chamber and 35050A readout.

**Ambient Operating Environment**
0 °C to 40 °C to an altitude of 5,000 feet.

**Monitor and Control Connector**
The same multi-pin connector used to supply the input power to the x-ray unit also provides connections for remote monitoring and control of the target voltage and electron beam current.

**Voltage Current and Control**
Target voltage and electron beam current are adjusted by using a separate external variable DC voltage source, or by adjusting the programming signal available from the multi-pin connector with external potentiometers.

**Weight**
7 lbs (3.2 kg).

**Main Dimensions**
See drawing.

**Cables**
Up to 33 foot (10 meter) interconnect cable ordered separately

**Mounting**
The Kevex PXS5-724EA is designed with five mounting holes, four on the side plate, and one near the rear connector.

**Appropriate Controller**
CU017, CU021 or Kevex PXS5 Digital Controller.

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