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.

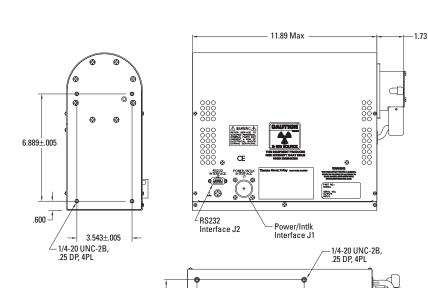
# Kevex™PXS10-16W

MicroFocus 130 kV



The Kevex PXS10 is an integrated 130kV MicroFocus X-Ray source, comprised of an end window tube (KM13106E), packaged with a power supply and digital controller. The Kevex PXS10 can be operated with either a Windows®-based Kevex GUI (graphical user interface), or by a host computer via RS232 port, utilizing the Product Interface Specification.

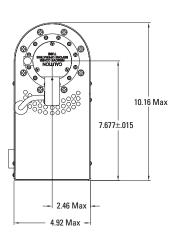
Installation and set-up is straightforward. The user simply mounts the unit into a shielded X-Ray cabinet and connects the power and RS232 cables. Safety interlocks provide for x-ray shutoff in the event of enclosure compromise.



6.889±.005

3.543±.005

.600



#### All dimensions in inches

CERTIFICATIONS

CE Directives 73/23/EEC (Low Voltage) and 89/336/EEC (EMC). Includes EN 61010-1, EN 55011, EN 50081-1, EN 61000-4.



## **Product Specifications**

#### **Kevex PXS10-16W**

Operating Voltage Range: 20 to 130 kV ± 0.5%; > 45 kV to achieve full beam current

and meet specifications.

Maximum Power: 16 Watts, 45-130 kVMaximum Beam Current: 0.356mA  $\pm$  2% @ 45kV

0.123mA ± 2% @ 130kV

Spot Size:  $\leq$  6 $\mu$  @ 4 watts, 60 -100 kV

 $\leq$  7 $\mu$  @ 4 watts, 45 -130 kV  $\leq$  9 $\mu$  @ 8 watts, 45 -130 kV  $\leq$  21 $\mu$  @ 16 watts, 45-130 kV

Spot to window spacing:  $14 \pm 1$ mm Target Material: Tungsten

Window Material and Thickness: Be:  $254 \pm 50\mu$  (.010") Window Diameter (uncollimated):  $19 \pm 1mm$  (.760")

Cone of Illumination:  $\geq$  53°, typically 54 to 55° @ 130kV. Ambient Temperature and Humidity: 0 to 32°C, 0 - 95% RH, up to 5000 feet

Method of Cooling: Internal fan. Adequate air circulation around unit must be provided.

Shielding: X-Ray leakage behind the x-ray tube is less than 0.5mR/hour, measured

one inch away. Measured with Victoreen 190

Weight: approximately 34 lb. Input Power: 24 VDC, 3 amps

#### **Features**

Internal protection for the x-ray tube to prevent damage to target when changing kV or mA.

Auto-conditioning (warm up) to ramp unit up slowly depending on how long unit has been off.

User Interface: All control is through the RS232C port. The unit can be operated using either a Thermo supplied Windows based graphical user interface, or by utilizing the Product Interface Specification (P/N 5973-3036). Status and diagnostics available on the RS232C interface are:

- ¬ Operating status of unit (Warm up, Interlocks, X-Ray On, etc.)
- Warm up time remaining
- ¬ Spot size
- X-ray tube temperature
- Event log for arc, anode leakage, interlock opened while x-rays on, etc.

### **Input/Output Connectors**

J1 is a 16 pin Amp #206036-8 low voltage connector for DC power, interlocks, and internal relays.

J2 is a 9 pin Amphenol 841-17-DEFR-A9S female "D" connector for the RS232C port. RS232C interface specifications:

Baud rate

38400

Data bits 8
Stop bits 1
Parity none
Xon/off none



DS61585\_E 04/04S P/N 5973-3683-1 Rev B

