

# MFX-CTR-60-1-A

## MicroFocus Analog Controller

Family	TruFocus Ordered P/N	Description	Max. Voltage (kV)	Max. Current (mA)	Max. Power (W)	Cooling Method	Weight	Programmable Control Interface
MFX	MFX-CTR-60-1-A	MicroFocus Controller. For controlling 8000 Series MicroFocus X-Ray source	60	1	60	Air	4.5 lb	Yes



Rear View



Front View

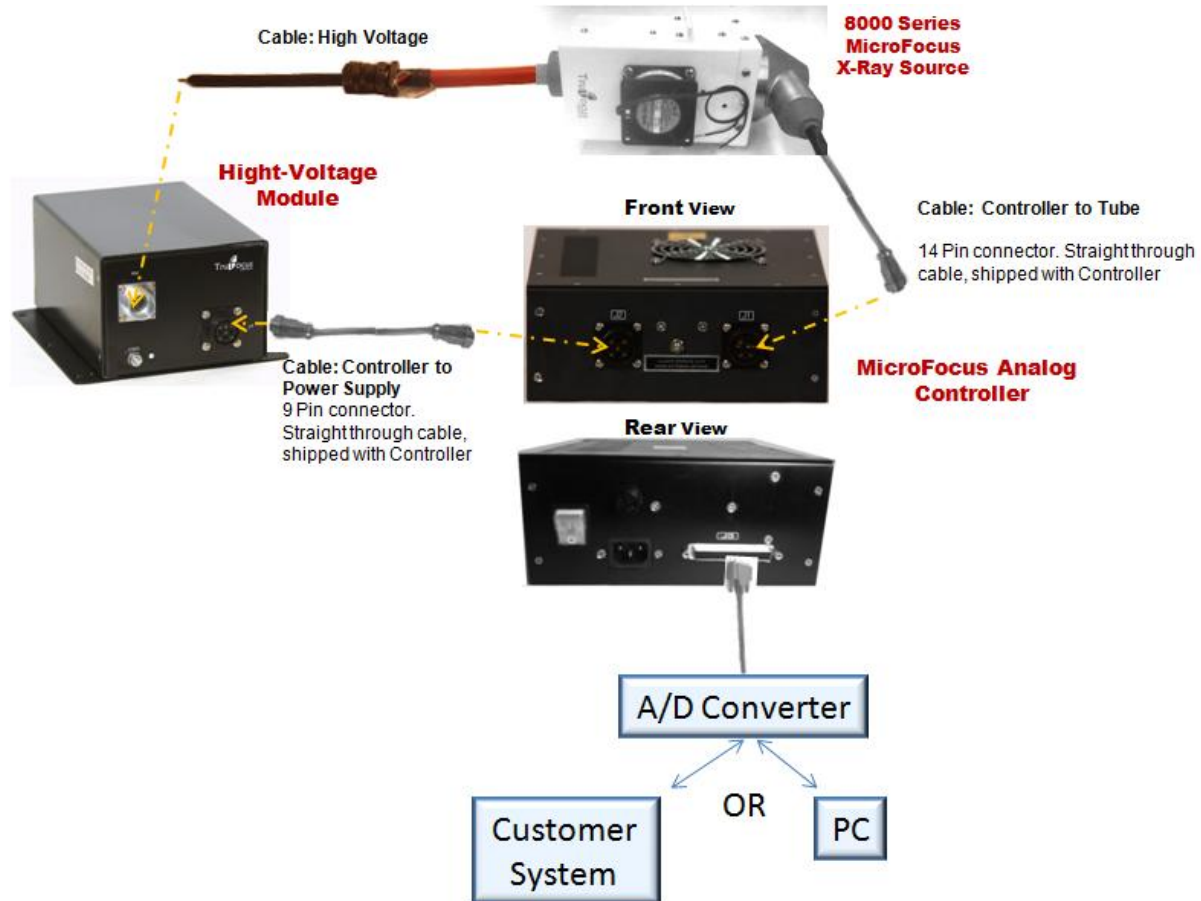
**MicroFocus Analog Controller** is specifically designed for controlling TruFocus 8000 Series X-Ray Tube Family. MicroFocus Analog Controller is to be used with TruFocus' High Voltage (HV) Module to form a programmable X-ray High Voltage Power Supply and Control sub-system.

Through DB 37 connector (J3), kV and mA programmable input level and kV and mA output level can be monitored in real time. Other tube parameters and safety signals are available to be accessed through MicroFocus Controller control interface. PC control interface can be implemented by using a Parallel to Series (RS 232) converter.

## Functional Overview

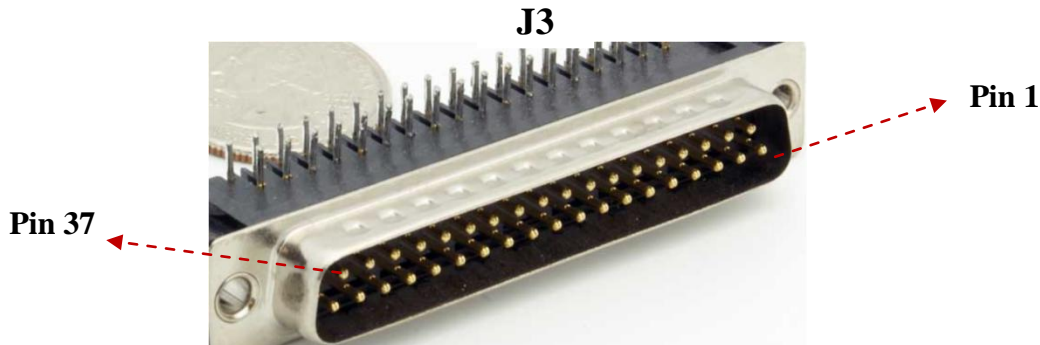


## MicroFocus Analog Sub-System Connection



**Note;**  
Customer to provide the A/D converter and or PC.

### 37-Pin D-Sub Connector Pin-out and Pin Functional Description



- 1) AWG size: Minimum 24 AWG
- 2) Not all 37 pins are used
- 3) Straight through connection (1 to 1; 2 to 2...)

Pin #	Signal Names	Note
1	Jumper1.0	Pin 1 and Pin 2 should be jumpered when pin 4, 23, 22 are not used.
2	Jumper 1.1	See note above
5	GND	
7	GND	
9	kV Program	Input – 0 to 10 VDC (Calibrated input for generating desired Anode voltage in kV )
11	kV Monitor	Output - 0 10 VDC
12	L1 Monitor	Output - 0 to -10 VDC
13	L3 Monitor	Output – 0 to 10 VDC
14	HV Interlock #1	Pin 14 & Pin 15 ( Source & return) for Interlock
15		
16	HV Interlock #2	Pin 16 & Pin 17 ( Source & return) for Interlock
17		
18	mA Monitor	Output – 0 to 10 VDC
19	Heater Monitor	Output – 0 to 10 VDC
27	mA Program	Input – 0 to 10 VDC (Calibrated input for generating desired Anode current in mA )

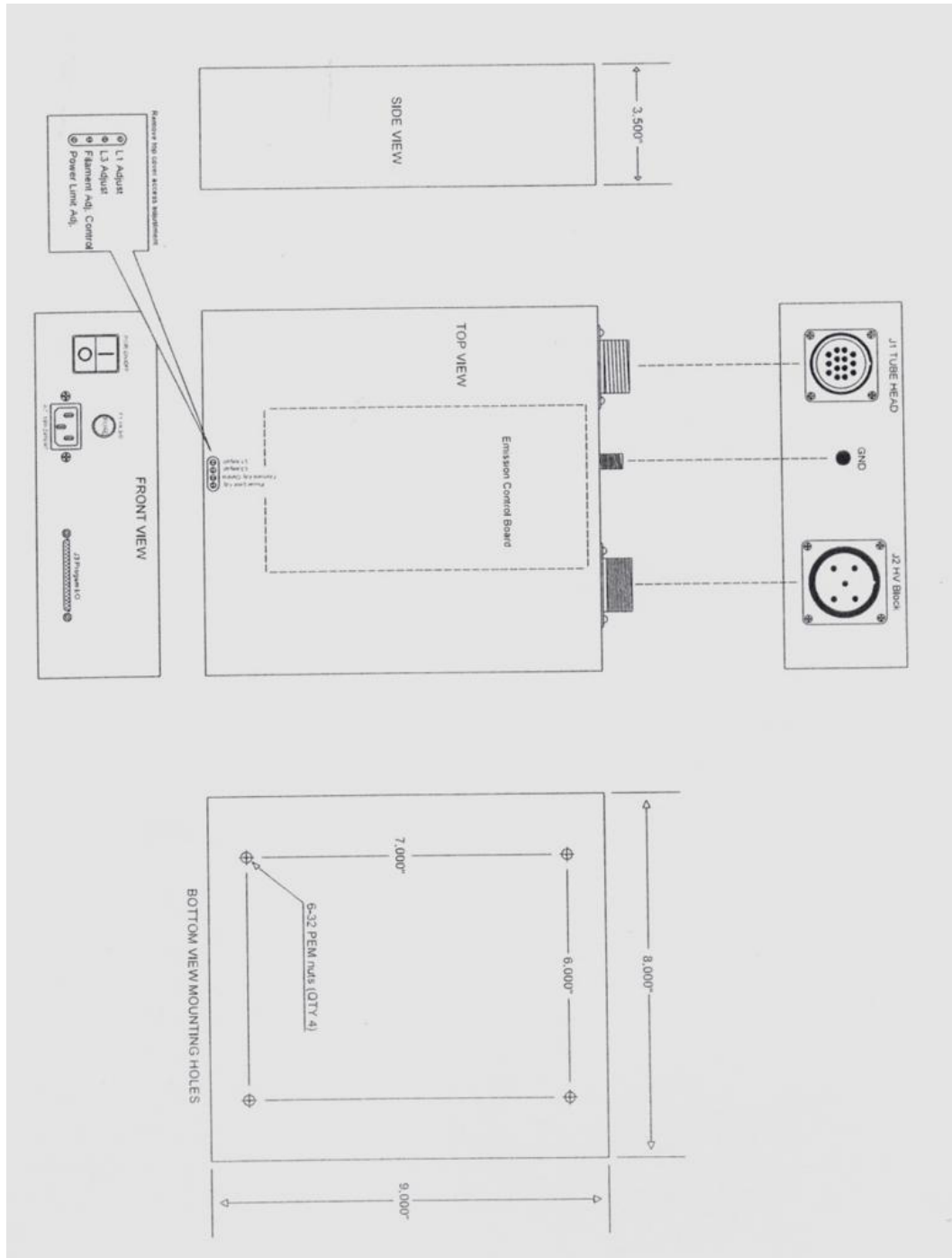
True Table for Pin 4, 23 and 22

	HV/ ON	HV/OFF	XRAY/ON	X-RAY/OFF	Note
4	1	0	N/A	N/A	1 is 5V, 0 is 0 V
23	0	1	N/A	N/A	1 is 5V, 0 is 0 V
22	N/A	N/A	0	1	1 is 5V, 0 is 0 V

**Note: Jumper Pins 1 and 2 when NOT using Pins 4, 23, 22**

## OUTLINE DRAWING

Drawing# & Version	DW- MFX-CTR-60-1-A
TruFocus P/N	MFX-CTR-60-1-A
Unit	Inches



# Caution

## **X-Ray Radiation**



1. **X-Ray radiation is harmful to the human body. It is necessary to take all safety precautions when operating this device.**
2. **The x-ray tube should be installed in an x-ray shielded cabinet to avoid exposure. It is recommended that the safety interlock system be used at all times.**
3. **It is the customer's responsibility to provide shielding for the use of this device.**

## **Warranty Information**

This x-ray tube is warranted to be free of defects in materials and workmanship for a period of 365 days (1 year). This warranty is limited to repair or replacement of defective products only. This warranty replacement cost to customer shall be prorated over the duration of the warranty period. The warranty period commences on the date of installation, but no later than 30 days from the date of shipment from TruFocus to the customer. Any loss, damage, failure and/or malfunction relating in any way to accident, abuse, alteration, misuse, neglect, fitting, disassembly, attempted repair, storage, adjustments of the electronics, or failure to use the tube within the specifications or operating instructions provided by TruFocus, or the lack of proper routine maintenance and care of the tube or system in which it is installed are expressly denied coverage under this warranty.

Subject to local and technical requirements and regulations. Availability of product in this promotional material may vary. Please consult with our office staff for availability.

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