

MAX-UNI-L-5-2-10-W-W

100W Integrated X-Ray Source

Max FAMILY	TruFocus Ordered P/N	Min. Voltage (-kV)	Max. Voltage (-kV)	Max. Current (mA)	Max. Power (W)	Target Angle (°)	Target Material	Beam Angle	Cooling Method	Programmable
MAX-UNI-L	MAX-UNI-L-5-2-10-W-W	17	50	2	100	10°	Tungsten (W)	X=30° Y=25°	Water	Y



Front View: MAX-UNI-L-5-2-10-W-W



**Rear View
MAX-UNI-L-5-2-10-W-W**

MAX-UNI-L-5-2-10-W-W is an Integrated (UNI-Block) X-Ray Source (100W, 50kV, 2 mA). It is part of TruFocus' MAX-UNI product family and integrates TruFocus' high quality X-Ray source, an extremely stable power supply with a programmable interface in a fully shielded housing.

HIGHLIGHTS

Control Interface: TruFocus' MAX Controller (see below)

Control Interface: PC USB port using MAX Software Driver

Fault Detection & Monitor: Temperature, InterLock, Cooling Flow

Focal Spot Size: 0.2 mm, nominal

Stability: Not exceed 0.2% Relative Standard Deviation over a 4 hours period of continual operation.

OEM Designers:

- Fully programmable control interface (rear D-Sub connector)
- Excellent engineering support and customer service

APPLICATIONS

**Analytical • Stress Analysis •
Thickness Gauging • Particle Analysis •
Spectroscopy Soft X-Ray • Radiology •
Isotope Replacement • Fluorescence •
Densitometry**

MAX-UNI-L-5-2-10-W-W controlled with MAX CONTROLLER or PC/MAX Driver (USB)

Controller with Color LCD • Graphic User Interface • PC USB Interface • PC Software Driver with advanced control & detection functions • Fiber Optics/USB Interfacing for Noise Free Communication



**MAX Series Controller
(MAX Controller)**



**Front Panel Control Mode
Use MAX Series Controller to control
MAX-UNI-L-5-2-10-W-W**



**PC Control Mode
Use a PC & MAX Controller to control
MAX-UNI-L-5-2-10-W-W**

HIGHLIGHTS

Control

Programmable kV input • Programmable mA input

Fault Detection & Monitoring

HV Monitor output • mA Monitor output • Calibration output • Interlock Status input • System Fault detection • Pressure Fault Detection • Tube Over-Power Fault Detection • Tube Over-Power Monitor output kV input • Programmable mA input.

OTHER APPLICATIONS

Tests of X-Ray backup units
Incoming Test of new units
Cycle Test

- Simple to set up
- Safe & time saving
- Minimum space

Specifications

MAX-UNI-L-5-2-10-W-W

Control & Calibration Interface (25-pin D-Sub Connector)

PIN#	PARAMETER	MIN	MAX
2	+10 VDC Reference Output	+9.95	+10.05
3	kV Program Input, full scale	0	+10 VDC
4,6	kV mA Program Return, floating	-2 VDC	+2 VDC
5	mA Program Input, full scale	0	+10 VDC
7	kV Monitor Output, full scale	0	+10 VDC
8	mA Monitor Output, full scale	0	+10 VDC
	HV Monitor Accuracy		2%
	mA Monitor Accuracy		2%
9	Monitor Return, floating	-2 VDC	+2 VDC
Control & Fault Detection			
1, 14	Ground and Logic Return	0	0
15	Enable Input low level interlock	+3.5 VDC	+36 VDC
16	Fault Output	+4.5 VDC	+5.5 VDC
17	Pressure Fault	200 Kpa	500 Kpa
18	Temperature Fault	0 C	65 C
	Over Voltage Tube Fault	-50 kV	-52.5kV
	Over Current Tube Fault	2.0 mA	2.5 mA
19	Over Power Tube Fault	100 W	131 W
20	Ready Output	+4.5 VDC	+5.5 VDC
21	Tube Power Monitor, full scale		+2 VDC
Power Inputs			
10	+ VDC input for filament: Voltage	22 VDC	32 VDC
	+ VDC input for filament: Current	0.2 AMP	0.8 A
11,12,13	+ VDC Input for HV: Voltage	24 VDC	32 VDC
	+ VDC input for HV: Current	0 AMP	11 A
	+ VDC input for HV: Power	0 WATT	250 W
23,24,25	- VDC input supply returns	0	0
	Fusing on power inputs		18 A

System Parameters

Parameter	Value	Unit
Target Voltage	-17 to -50	kV
Target Current	0-2.0	mA
Maximum Power	100	W
Focal Spot Size	0.2, nominal	mm
Beam Angle	X=30° Y=25°	degree
Operation	Continuous	—

Flux Stability: Not exceed 0.2% Relative Standard deviation over a 4 hours period of continual operation.

X-Ray Tube

Parameter	Description
X-ray Tube	Glass / Metal
Filament	3 V at 3.5 mA (max)
Target Material	Tungsten
Target Angle	10°
Window Material	Beryllium
Window Thickness	.005 "
Window Type	Side Window
Operating / Storage Temp. (Max.)	+10 °C to +60 °C / 0 °C to +60 °C
Operating / Storage Humidity (Max.)	85 % RH
Cooling Method	Water + 10% Propylene glycol
Weight	14 lbs
Flux Stability	<0.2%

OUTLINE DRAWING

Drawing# & Version:	DW-MAX-UNI-L-5-2-10-W-W-V01
TruFocus P/N:	MAX-UNI-L-5-2-10-W-W
Unit:	In

