 REMO-HSE	BXR-S-10N50-0.2m-DC24	Datasheet
	Regulated High Voltage Assembly with floating filament heating	



Description:

- X-Ray power supply with filament heating for OEM applications
- Compact cylindrical design, adapted to the shape of small X-ray tubes for geological applications in drill holes
- Output voltage adjustable from -5 to -50kV and output current from 0 to 200 μ A
- 10W maximum high voltage output power
- Filament voltage approx. 2V_{rms} with a maximum current of 300mA

Features:

- 24VDC input
- Reverse polarity protection
- High-voltage output 100% short-circuit proof to ground

- Remote control and monitoring via analogue interface; 0-5V DC corresponds to 0-100% of the maximum nominal size

Options:

-


Typical Applications:

X-ray tubes for

- Fluorescence analysis
- Sorting of metals and alloys
- Mining and Geology
- Lead in colour
- Etc.

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Technical Specifications


Input and Output	
Input:	24 VDC max. 1.1A
Output:	Continuous adjustment of voltage from -5 to -50kV and current from 0 to 200µA with external 0 to 5V signals. Voltage ripple less than 0,3% of the nominal voltage.
Filament Voltage:	Max. $2V_{rms}$ nominal referenced to negative high voltage output
Filament Current:	300mA max. The filament current is regulated by internal beam control loop and is limited by beam current demand.
Efficiency:	Typically, 50% (at rated conditions: -50kV, 200µA).

Protection
<ul style="list-style-type: none"> ❖ Automatic transition from constant voltage to constant current control and vice versa. ❖ Temperature monitoring and over-temperature shutdown with automatic restart. ❖ High voltage output 100% short-circuit proof to ground.

Remote Control and Monitoring via Analogue Interface	
Switching ON and OFF High Voltage and Resetting to Initial State	
High voltage OFF / ON:	0V → OFF / 5VDC → ON
Continuous voltage and current adjustment via analogue interface	
Voltage adjustment:	0 to 5 VDC corresponds 0 to -50kV
Current adjustment	0 to 5 VDC corresponds 0 to 200µA
Continuous voltage and current monitoring via analogue interface	
Measured voltage value:	0 to 5 VDC corresponds 0 to -50kV
Measured current value:	0 to 5 VDC corresponds 0 to 200µA
Status signals	
Filament:	5VDC → NOT READY / 0VDC → READY after about a second

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Environmental Data	
Operating Temperature Range:	-10 to +50°C
Storage Temperature Range:	-25 to +70°C
Humidity:	80% maximum relative humidity up to +31°C, reducing linearly to 50% at +50°C. Non-condensing (ref. EN61010-1).
Altitude:	0 to 2000m

Mechanical Data	
Housing:	Open Frame
Dimensions(approx.):	ca. 350mm long (without cable connections), ca. 44mm diameter
Weight:	Approx. 585g

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