osi1603 Series

+100 V to +3 kV, 1 W, floating output, low ripple



Product introduction

The osi1603 is a modular 1 W high-voltage DC supply with 24 V input, output up to +3 kV and maximum output current 330 μA. Floating isolation, high efficiency, compact packaging and low ripple are provided. A 9-pin D-type interface supports remote user control and adjustment. The unit is compact and lightweight, with positive-polarity output.

Product features

- Floating 3 kV output
- 1 W output power
- Voltage programming and monitoring
- Low ripple and noise
- Modular construction
- Analog programmable control

Specifications

Parameter	Specification
Input voltage	+24 VDC ±0.5 VDC.
Input current	Maximum 600 mA.
Output voltage	+100 V to +3 kV.
Output current	Maximum 330 µA.
Output polarity	Positive.
Output power	Maximum 1 W.
Isolation voltage	15 kV, referenced to earth.
Line regulation	≤0.01% for 1 V input change.
Load regulation	≤0.1% from no load to full load.
Voltage programming	0–10 V analog interface.
Voltage monitoring	0–5 V.
Ripple	Better than 0.1% peak-to-peak at rated output.
Stability	Less than 0.1% per 8 hours after a 1-hour warm-up.
Temperature coefficient	Voltage and current: better than 300 ppm/°C.
Ambient temperature	Operating: 0°C to 45°C. Storage: −20°C to 80°C.
Humidity	10–90% relative humidity, non-condensing.
Cooling	Convection cooling.
Dimensions	104 mm wide, 38 mm high, 171 mm deep.
Weight	Approximately 1 kg.
Interface connector	9-pin male D-type connector.
High-voltage output cable	HV positive: 750 mm flying lead; HV negative: 750 mm flying lead.

DB9 connector signal definitions

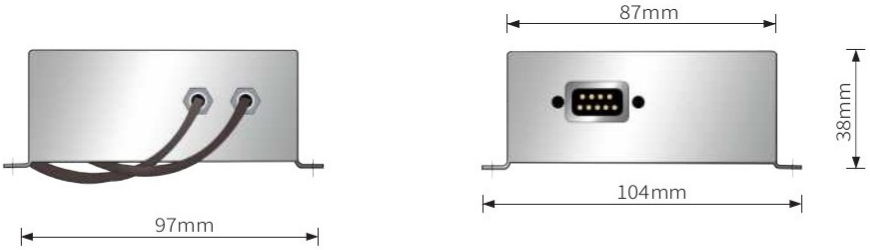
Pin	Signal	Description
1	Signal ground	Signal ground
2	Voltage programming input	0–10 VDC = 0–100% rated output
3	+24 V input	+24 V input
4	+24 V input	+24 V input
5	Voltage monitor	0–5 VDC = 0–100% rated output
6	Power ground	Power ground
7	Power ground	Power ground
8	Power ground	Power ground
9	Power ground	Power ground

Typical applications

Mass-spectrometry detectors; microchannel plate detectors; electron-multiplier detectors; channel electron multipliers; photomultiplier tubes.

Outline dimensions

Dimensions in mm.


87mm
38mm
104mm
97mm


171mm