

# High Power On-board Power Supply

RD Series

01.129.02|02-1



## FEATURES

- Ultra compact, High Power
- Low ripple, High stability
- High reliability
- Both external VR or voltage for control
- -LP option(plastic case)

## APPLICATIONS

- Radiation counter
- PMT, MCP
- Electron Beam / Ion Beam
- Mass spectrometry
- Electrostatic chuck
- High voltage testing

## LINEUP

\*P:Positive Polarity \*N:Negative Polarity

Output Voltage (kV)	Output Current (mA)	Output Power (W)	MODEL	Ripple (%p-p)
0.25	24	6	RD6-0.25*	0.008
	80	20	RD20-0.25*	0.03
	120	30	RD30-0.25*	0.04
0.5	12	6	RD6-0.5*	0.005
	40	20	RD20-0.5*	0.008
	60	30	RD30-0.5*	0.01
1	6	6	RD6-1*	0.015
	20	20	RD20-1*	0.045
	30	30	RD30-1*	0.07
2	3	6	RD6-2*	0.008
	10	20	RD20-2*	0.01
	15	30	RD30-2*	0.015
4	1.5	6	RD6-4*	0.02
	5	20	RD20-4*	0.045
	7.5	30	RD30-4*	0.065
6	1	6	RD6-6*	0.025
	3.3	20	RD20-6*	0.02
	5	30	RD30-6*	0.04

## SPECIFICATIONS

### Input Voltage/Current

MODEL	Input voltage	Input current
RD6	11 to 16Vdc	0.65A typ@12V
RD20	23 to 30Vdc	1A typ@24V
RD30		1.5A typ@24V

**Output Voltage Control** External 5kΩ(100kΩ with -LP option) potentiometer or external voltage control(Vcon-in) 0 to 5V  
Input impedance : more than 10kΩ  
(See appendix for -LP option)

**Output Voltage Accuracy** ±2% / Vcon-in=5.00V

**Line Regulation** 0.01%  
(at maximum voltage[Vin=12V, 24V] for ±10% Input line change)

**Load Regulation** 0.01%  
(at maximum voltage for 0 to 100% load change)

**Stability** 0.01%/8Hr

**Temperature Coef.** ±50ppm/°C

**Monitors** Output voltage : +5V / rated output  
Output current : +5V / rated output  
(Output impedance:1kΩ, Accuracy:±2%F.S.)

**Reference Volt.** 5V±2%

**Operating Temp.** 0 to +60°C

**Storage Temp.** -40°C to +85°C

**Humidity** Operating/Storage:20 to 80%RH(no condensation)

**Protection** Output short circuit

## OPTION

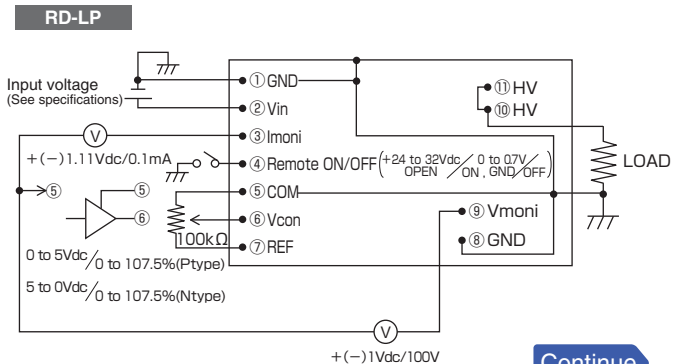
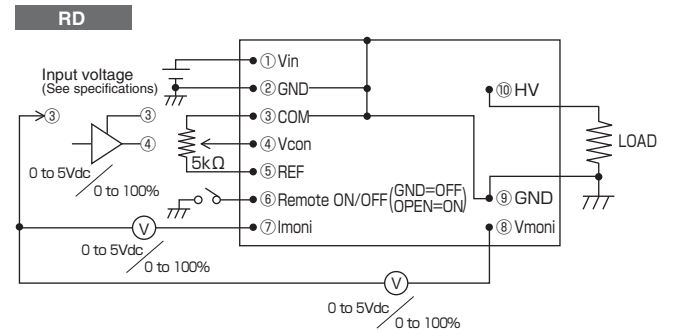
### -LP : Plastic Case

Monitors	P-type	Output Voltage +1V/100V*1 Output Current -1.11V/0.1mA*2
	N-type	Output Voltage -1V/100V*1 Output Current +1.11V/0.1mA*2
Output Voltage Control (external control voltage)	P-type	0 to 5V / Output 0 to 107.5% Input imp : 1.1MΩ to GND
	N-type	5 to 0V / Output 0 to 107.5% Input imp : 1.1MΩ to REF

\*1 : It is designed that accuracy will be ±2%F.S. when input impedance of measuring device for monitoring voltage is more than 10MΩ.

\*2 : Offset voltage that proportionate to output voltage will be added to Current monitor (5 to 15%) measure with voltage meter with more than 10MΩ input impedance.

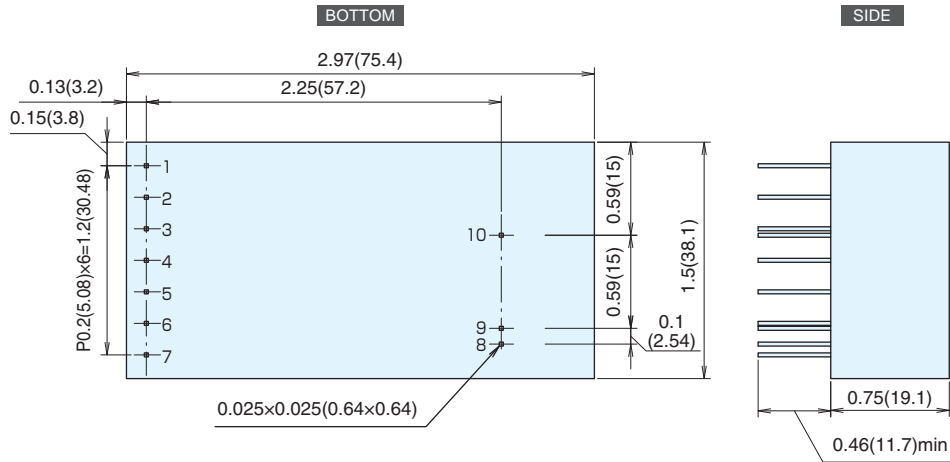
## CONNECTION DIAGRAM



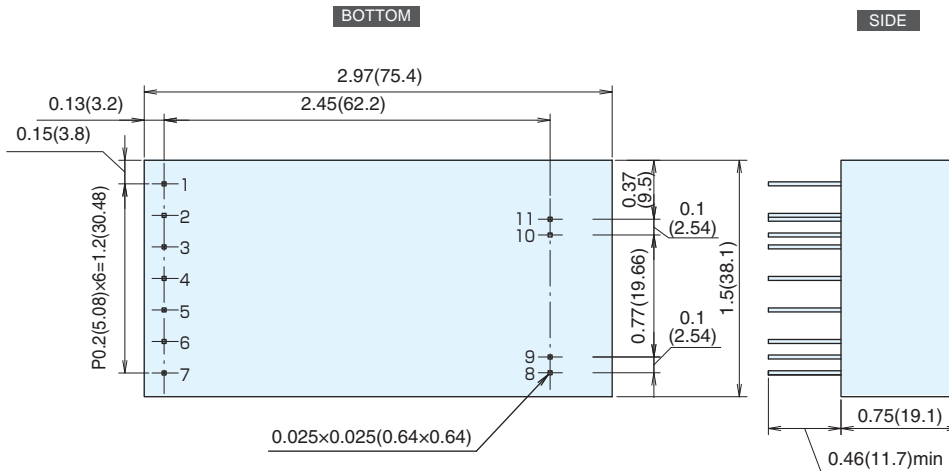
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**DIMENSIONS inch(mm)**

Standard



-LP option



**Warranty**

We warrant that products contained in this catalog (hereinafter, the "Products") are free from defects in material and workmanship under normal use for a period of one (1) year from the date of shipment thereof. However, the warranty period for X-ray detectors and X-ray source shall be either one (1) year from the date of shipment or 1,000 hours, whichever shorter. The above warranty shall not apply to any Product which, at our sole judgment, has been: i) Repaired or altered by persons unauthorized by us; or ii) Connected, installed, adjusted or used otherwise than in accordance with the instructions furnished by us (including being used in an inappropriate installation environment, such as in corrosive gas, high temperature and humidity). We are not liable for any loss, damage or failure of the Products after the shipment thereof caused by external factors such as disasters. If any Product is shown to be defective as satisfactory to us, we, at our sole discretion, repair or replace such defective Products at no cost to the purchaser. We assume no liability to the purchaser or any third party for special, incidental, consequential, or other damages resulting from a breach of the foregoing warranty. This warranty excludes any and all other warranties not set forth herein, express or implied, including without limitation the implied warranties of merchantability or fitness for a particular purpose. The Products are not designed and produced for such applications as requiring extremely high reliability and safety, or involving human lives (such as nuclear power, aerospace, social infrastructure facility, medical equipment, etc.). The use under such environment is not covered by this warranty and may require additional design and manufacturing processes.



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