

RC SERIES

REGULATED DC/DC HIGH VOLTAGE MODULES

Compact, highly stabilized high voltage modules with ground-referenced programming and low stored energy. Fourteen standard 5 W and 10 W models cover 3 to 30 kV; extended RC configurations are available to 50 kV and 50 W.



3-30 kV

STANDARD MODELS

TO 50 kV

EXTENDED VOLTAGE

UP TO 50 W

EXTENDED POWER

0-10 V

PROGRAMMING

KEY CAPABILITIES

- Voltage programmable from zero to rated output
- Excellent dynamic regulation
- Arc-over, overload, and short-circuit protection
- Vacuum-encapsulated silicone high voltage section
- Ground-referenced control circuits with optional voltage and current monitors
- Dual voltage/current control loops available where required

TYPICAL APPLICATIONS

- CRT displays
- Photomultiplier bias
- X-ray tubes

STANDARD MODEL GUIDE

Model	Output voltage	Output current
RC5-3	0-3 kV	1.5 mA
RC5-5	0-5 kV	1 mA
RC5-10	0-10 kV	500 μ A
RC5-15	0-15 kV	333 μ A
RC5-20	0-20 kV	250 μ A
RC5-25	0-25 kV	200 μ A
RC5-30	0-30 kV	160 μ A
RC10-3	0-3 kV	3.3 mA
RC10-5	0-5 kV	2 mA
RC10-10	0-10 kV	1 mA
RC10-15	0-15 kV	660 μ A
RC10-20	0-20 kV	500 μ A
RC10-25	0-25 kV	400 μ A
RC10-30	0-30 kV	333 μ A

The standard 5 W and 10 W models are shown. Add P or N for output polarity. Contact Gamma for extended configurations to 50 kV and 50 W.

HIGH VOLTAGE SOLUTIONS

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3-50 kV | UP TO 50 W

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ELECTRICAL CHARACTERISTICS

Input	+28 VDC +/-10%
Alternate input	+24 VDC available
Output voltage	Programmable from zero to rated maximum
Programming	External 10 kohm potentiometer or ground-referenced 0-10 V source
Standard power	5 W or 10 W maximum, according to model
Line regulation	0.01% maximum
Load regulation	0.01%
Ripple	0.05% maximum
Temp. coefficient	0.01% per deg C
Stability	0.01% per 8 hours

INTEGRATION AND CONTROL

- Terminal 1: input return / ground
- Terminal 2: +10 V reference / potentiometer clockwise end
- Terminal 3: potentiometer wiper or positive 0-10 V program input
- Terminal 4: potentiometer counter-clockwise end or program common
- Terminal 5: +28 VDC input
- Program source may be floating or grounded

PHYSICAL AND ENVIRONMENTAL

Standard dimensions	Through 15 kV: 3.49 W x 5.11 L x 1.56 H in; 20-30 kV: 3.82 W x 6.32 L x 2.86 H in
Weight	2.5 lb through 15 kV; 3.5 lb for 20-30 kV
Input interface	Five-position terminal block
HV output	12 in flying lead
Operating temp.	0 to 50 deg C
Construction	Vacuum-encapsulated silicone high voltage section

CONFIGURATION NOTES

- Positive or negative output polarity
- +24 VDC input version
- Voltage-monitor output
- Current-monitor output
- Extended configurations to 50 kV and 50 W
- RoHS-compliant version available

MODEL NUMBER FORMAT

RC[Power]-[Voltage][Polarity]

EXAMPLE

RC10-15P 10 W | 15 kV | Positive

5 / 10 = watts P = positive N = negative

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Get in touch

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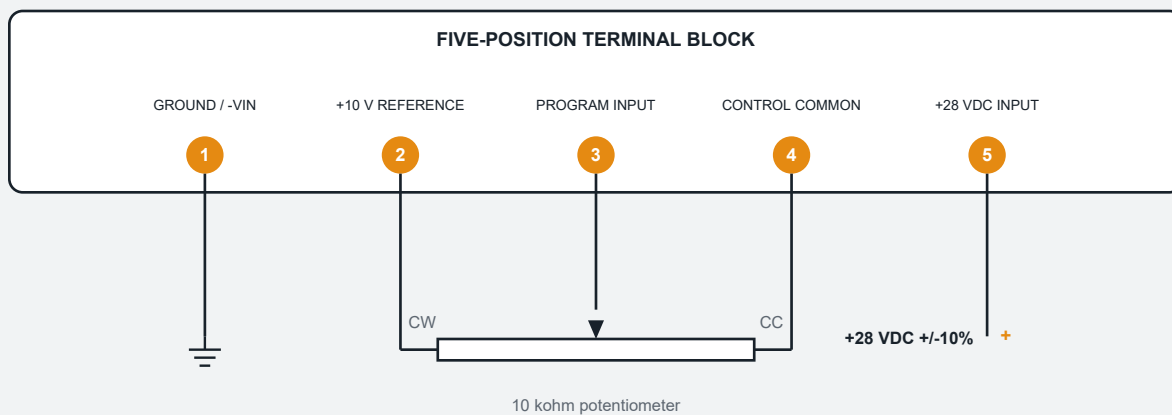
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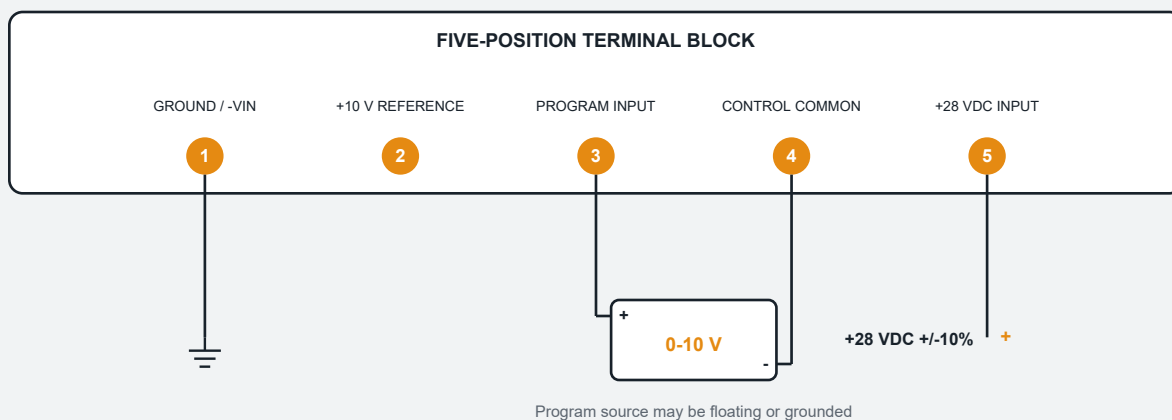
PROGRAMMING INTERFACE

The five-position terminal block accepts either a 10 kohm potentiometer or a ground-referenced 0-10 V programming source. The input return connects to terminal 1 and +28 VDC power connects to terminal 5.

10 kohm POTENTIOMETER PROGRAMMING



EXTERNAL 0-10 V PROGRAM SOURCE

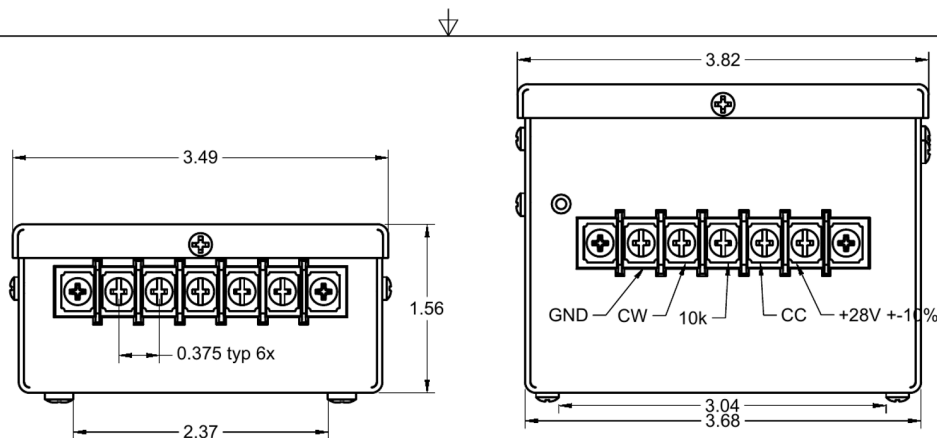


A +24 VDC input version and optional voltage- and current-monitor outputs are available.

MECHANICAL DRAWINGS

Mechanical dimensions for the standard 5 W and 10 W RC enclosures are shown below. Dimensions are in inches. Extended-voltage and extended-power configurations may use different enclosures.

TERMINAL-BLOCK AND FRONT VIEWS



SIDE VIEWS

