

High Voltage Square Pulse & Pulses,  
Wave-shape Signal upto 150kVp 300kVp 500kVp in oil ,  
Voltage ratio 10000/1 in normal & custom available.

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E-MAIL : info@3RLab.com



### CD-series, Capacitive High Voltage Dividers Pulse, (AC p-p), Dividers in Oil & Air

CD-series are Capacitive high voltage dividers used for the measurement of pulse voltages 150kVp 300kVp 500kVp in stock and up to 1000 kilovolts as custom. 3RLab's high quality and high stability voltage dividers can be coordinated with various design and size in client's application of projects, to show in 1MΩ 12pF oscilloscope , as well as analogue output. 3RLab can be supply more detail of test results and data, Almost specified data for the high voltage engineering what tested from High Voltage Square Pulse Modulator in our factory. The voltage ratio able to adjustable in user's factory simply. Various custom design available. For example, size, voltage ratio, matching impedance, out-put type (to scope, analogue to user's equipment) please contact 3RLab, Inc.

| Model Number                                       | Unit   | CD-150   | CD-300                | CD-500  | Remarks                         |
|--|--------|--|-----------------------|---------|---------------------------------|
| Max. Pulse Voltage in Oil                          | [kVp]  | 150  | 300                   | 500     |                                 |
| Max. Pulse Voltage in Air                          | [kVp]  | 25   | 50                    | 70      |                                 |
| Voltage Ratio in Oil (standard calibration)        |        | 5000/1   |                       |         |                                 |
| Dielectric constant of the insulating oil & name   |        |  |                       |         |                                 |
| Voltage Ratio in Air                               |        | 11500/1  | 11500/1 or 23000/1    | 23000/1 | Apprx.                          |
| Frequency Range, into 1MΩ load                     |        | 15 Hz to 4MHz typ. and See Fig. Nr.:                       |                       |         |                                 |
| Basically attached & supply of RG cable length     | [M]    | 1  | 1                     | 1       |                                 |
| Ratio Shift vs RG cable length into 1 MΩ load      |        | See Fig. Nr. :   |                       |         |                                 |
| Rise time at square pulse                          | [nSec] | 100nSec ~ 200nSec. typ. See Fig. Nr. :                     |                       |         |                                 |
| Capacitance (apprx.) in High 'C1' , See Fig. Nr. : | [pF]   |  |                       |         | w/o 'CG', Apprx.                |
| Temp. in oil and capacitance derating rate         |        |  | See Fig. Nr. :        |         | Voltage Ratio Shift             |
| Slope rate of the pulse shape vs Pulse duration    | [%]    |  | See Fig. Nr. :        |         | refer to 5μSec                  |
| Material of High Voltage Electrode                 |        |  | Aluminum              |         |                                 |
| Terminal type of the top in High Voltage Electrode |        | Corona Ring & M5 bolt                                      | Corona Ring & M6 bolt |         |                                 |
| Material of Bottom/Guard Case                      |        |  | Aluminum              |         |                                 |
| Material of Bottom Plate                           |        |  | Aluminum              |         |                                 |
| Material of Upper/High Voltage Insulating Tube**   |        |  | Poly Carbonate        |         | **do not dip in organic solvent |
| Drain Oil from Bottom Case                         |        | Yes, Available through holes in bottom plate & bottom case |                       |         |                                 |
| HV connection methods on HV electrode              |        |  | See Fig. Nr. :        |         |                                 |
| How to away the Ground from HV electrode           |        |  | See Fig. Nr. :        |         |                                 |

# CD-SERIES

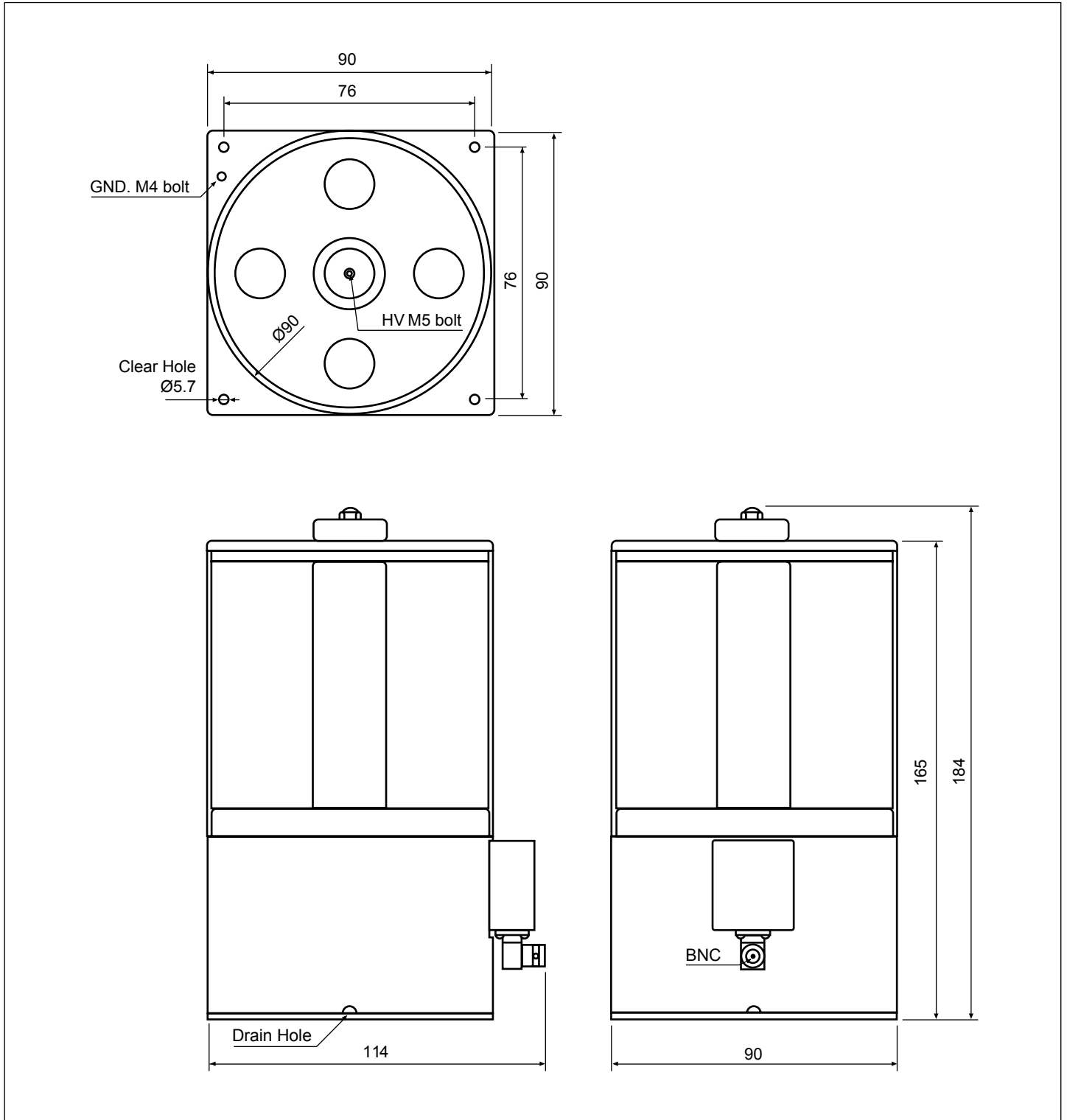
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## CD150



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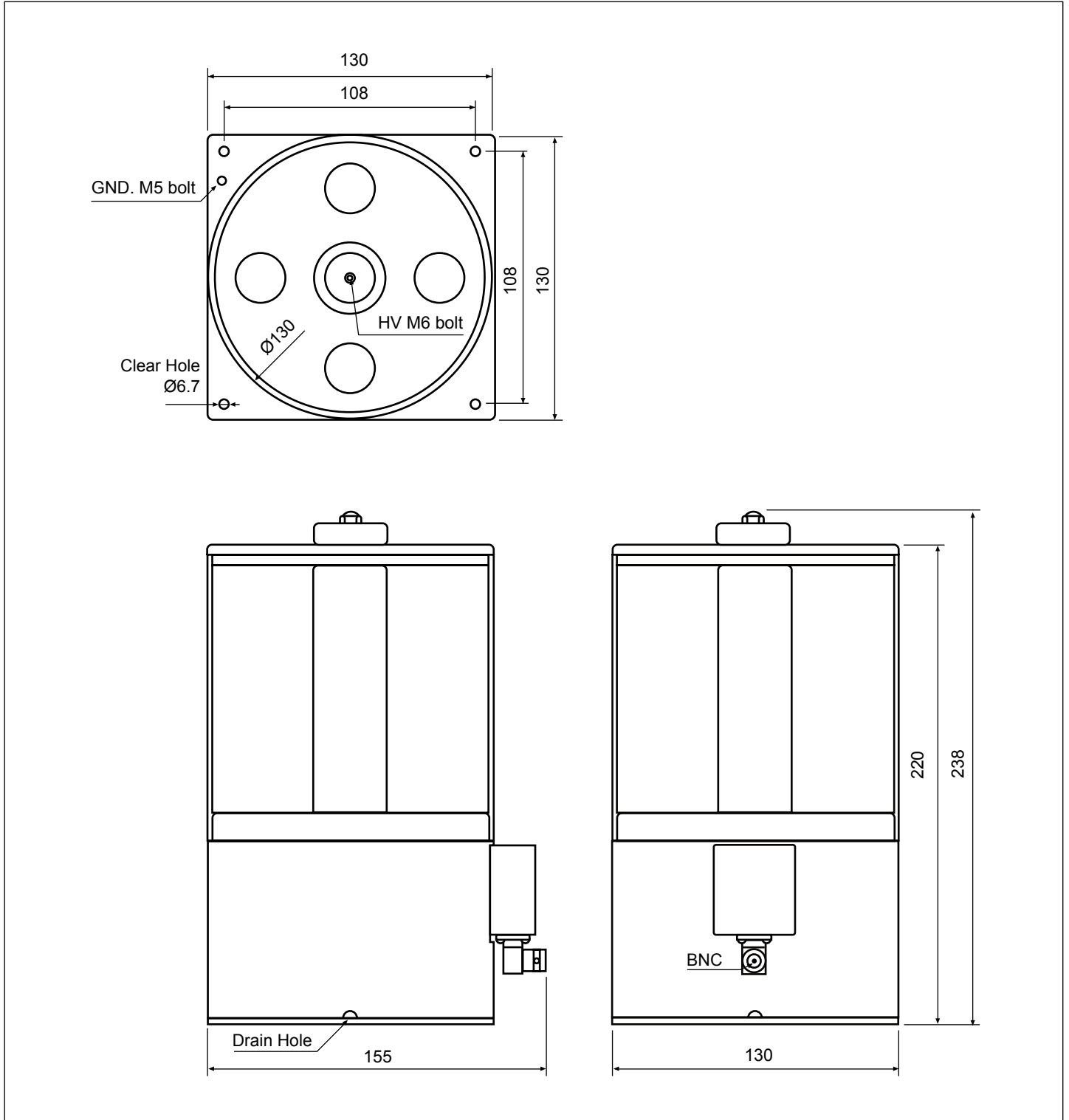
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## CD300



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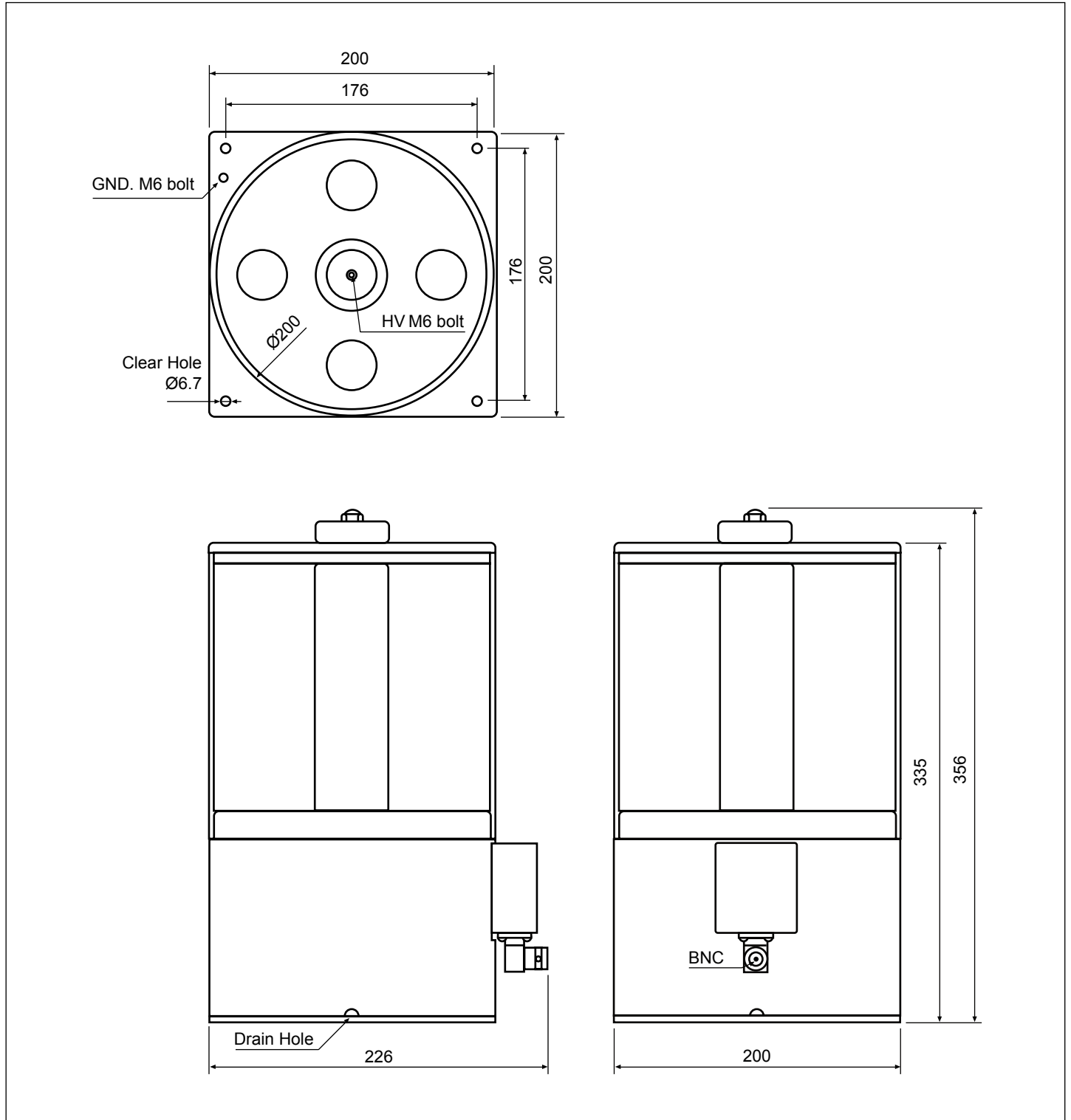
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## CD500



# CD-SERIES

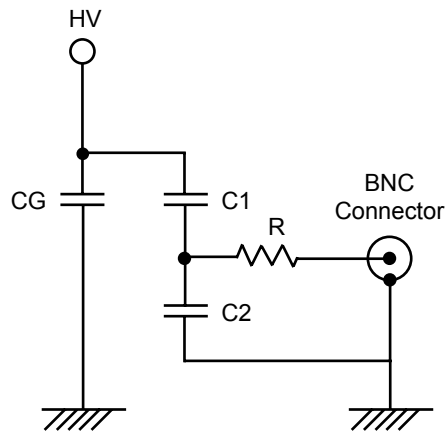
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### Electrical Schematic



$$\text{Voltage Ratio} = C2/(C1+C2)$$

