



ROSS ENGINEERING CORPORATION

WORKSHEET H.V. DIVIDERS, PROBES / METERS

Name: _____ Company: _____ Date: _____

Please fill in as much as possible so Ross Engineering Corp. can recommend the best device for the application!

Calibration: _____ Standard Calibration to NIST ANSI Z540-1-1994, _____ Accredited Calibration to ISO/IEC 17025.

What is the actual working voltage range? DC _____ kV to _____ kV. AC RMS _____ kV to _____ kV. AC Peak _____ kV to _____ kV. Pulse, peak _____ kV to _____ kV. Pulse, peak to peak _____ kV to _____ kV.

What is the desired ratio? 1000/1 _____ 10,000/1 _____ Other? _____ Note: Multiple ratios and multiple matching are also available.

What is the desired HV input resistance and capacitance? _____ Megohms. _____ Picofarads. Note: Certain resistance & capacitance may be best for optimum performance.

Desired features – check all that apply:

- | | |
|---|---|
| <input type="checkbox"/> Base mounted voltage divider | <input type="checkbox"/> Differential (2 matched dividers). |
| <input type="checkbox"/> Hand held probe type. | <input type="checkbox"/> Portable laboratory use. |
| (_____ with handle. _____ with ground lead). | <input type="checkbox"/> Fixed in equipment. |
| <input type="checkbox"/> DC, _____ 50/60Hz _____ 400 Hz, _____ other. | <input type="checkbox"/> Voltage will be applied continuously. |
| <input type="checkbox"/> Wide band or _____ fast rise time pulse. | <input type="checkbox"/> Voltage will be applied short time |
| <input type="checkbox"/> For Electronic Class use. | (_____ sec or less or _____ single pulse?). |
| <input type="checkbox"/> For Utility Power Class power line use | <input type="checkbox"/> Pulse train (repetitive short pulses). |
| <input type="checkbox"/> Indoor _____ Outdoor. | <input type="checkbox"/> Match more than one instrument. |
| | (State Instrument Model #'s) _____ |

If for Utility Power Class power line use, what is line-to-ground voltage? _____ kV AC RMS. _____ 3 phase - _____ WYE or _____ Delta. _____ single phase AC. _____ DC. Subject to lightning or switching transients? _____.

Basic Impulse Level Test Rating (single pulse 1x 50µSEC wave 3+ & 3-) _____ kV PK. (BIL, Switching Transient Level)

What is the required maximum frequency response to -3dB? _____ MHz, _____ kHz, _____ Hz, or rise time? _____ µSEC, pulse width _____ µSEC, duty cycle _____ PPS or _____ %.

What are the required accuracies? ± _____ % DC, ± _____ % _____ Hz, ± _____ % _____ MHz. Available are: ±0.1% DC or ±0.01% DC and ±0.2% ±5.0% or ±1% 50-60Hz and ±3% to 10% DC-1MHz to 10MHz. Certified Correction chart for 10% or 20% steps included. Steps at particular voltages available - _____ kV.

At what frequency or rise time is best accuracy desired? Primarily _____ DC, _____ 50/60Hz, _____ kHz, _____ MHz. _____ µSEC rise time. At what voltage(s) _____ kV PK.

What is the instrumentation type and load impedance, (resistance and capacitance) that the divider or probe must match? _____ Oscilloscope, _____ DVM, _____ other. _____ megohms, _____ picofarads.

What is (RG59 U-9259) coaxial output cable length required: 15' is standard, (2', 3', 6', 20', 30' are available). _____ Ft. For max frequency response cable should be as short as possible. Additional cable drivers or isolating fiber optic transmitters are available for longer distances to instrumentation.

What is output end of output cable connector required? _____ BNC, _____ Banana, _____ other. Max. allowable dimension: height _____ inches, diameter _____ inches Base, _____ HV Top. Proximity of nearest large conductive objects or walls: _____ Ft. Important for AC accuracy.

Power source voltage for meter or charger if required. _____ VDC, _____ VAC 50/60Hz, _____ 400Hz. Environment: For use in _____ air, _____ oil, _____ SF6. To _____ Ft. max altitude. _____ Indoor, _____ Outdoor. Ambient temperature range during operation _____ °C to _____ °C. Insulated handle (hotstick) length desired, _____ Ft. Single Length _____, Collapsible to _____ 18", to _____ 12".

Actual Application: (Describe system VD is used on) _____

Other requirements: _____



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