Broadband High-Voltage Dividers

HVT 10 RCR - HVT 300 RCR

HVT 40 RCR

broadband
voltage divider
with capacitive compensation

The Broadband high-voltage dividers series HVT...RCR are state-of-the-art measuring equipment with excellent high-frequency transmission characteristics. The high-voltage impedance consists of a precise metal film resistor and a high-voltage capacitor with series damping resistor in parallel.

The measuring cable with the termination network is an essential part of the divider. The termination network can be adjusted for an oscilloscope input impedance of 1 MΩ // 10 - 30 pF.

The divider can also be used for high-voltage dc measurement with a digital voltmeter (DVM). Connecting a resistor Rp = 1.11 MΩ in parallel to the input terminals of the DVM means that the load resistance at the divider output will be also 1.0 MΩ.

HVT * RCR**	**10**	**20**	**40**	**80**	**120**	**160**
rated input voltage:						
dc voltage [kV]	11	22	40	80	120	160
ac voltage eff. [kV]	8	15	30	60	90	120
pulse voltage 1.2/50µs [kV]	20	40	100	160	200	250
divider ratio (DC) ± 1%	1000:1	2000:1	2500:1	5000:1	5000:1	5000:1
hv-resistor [MΩ]	20	40	150	270	270	300
hv-capacitor [pF]	75	82	50	75	100	140
rise time [ns]	15	15	15	25	30	35
bandwidth [MHz]	23	23	23	14	12	10
Dimensions:						
socket ∅ / L*B*H [mm]	80*75*60	80*75*60	180	260	360	360
height [mm]	220	310	360	690	1080	1350
Weight [Kg]	1,5	2,5	5.0	8.5	12	20
cable length [m]	2	2	5	10	10	10

HVT *** RCR		240	300
rated input voltage:			
dc voltage	[kV]	240	300
ac voltage eff.	[kV]	180	230
pulse voltage 1.2/50µs	[kV]	360	480
divider ratio (DC) ± 1%		5000:1	5000:1
hv-resistor	[MΩ]	360	460
hv-capacitor	[pF]	190	220
rise time	[ns]	48	60
bandwidth	[MHz]	7,3	5,8
Dimensions:			
socket ∅ / L*B*H	[mm]	1,2x1,2	1,2x1,2
wheels / lockable		4 / 2	4 / 2
height	[mm]	1880	2200
Weight	[Kg]	40	50
cable length	[m]	20	20

HVT 80 - 160 RCR

HVT 240 - 300 RCR

Option 1: Amplification output signal AC, DC

amplification / attenuation	customer specific
signal input	BNC
signal output	BNC
measure output	BNC
power supply	+/- 15 V
In shielded alu case B x H x T	120x60x40 mm
Mounting holes	4 x

Option 2: Mounting on flange plate

Customer specific

Option 3: DC ratio

Customer specific