High Voltage Dividers

These ultra-fast voltage dividers are designed for the measurement of short pulses in a coaxial cable up to a voltage of more than 200 kV. The response of the sensor is derivative; therefore the signal measured with a high speed oscilloscope must be integrated. The integration can be active or passive (for instance with a passive integrator ITR from montena). Three VDOT versions with different types of connectors are available.



SPECIFICATIONS			
Reference	VDOT8G	VDOT8GS	VDOT200K
Туре	V-Dot (voltage)	V-Dot (voltage)	V-Dot (voltage)
Response	derivative	derivative	derivative
Maximum DC voltage	4 kV	25 kV	75 kV
Maximum pulse voltage (1 ns pulses)	20 kV	75 kV	200 kV
Frequency response	up to 4.5 GHz	up to 2.4 GHz	up to 1.6 GHz
Impedance	50 ohm	50 ohm	50 ohm
Attenuation between input and output	< 0.5 dB	< 0.7 dB	< 0.7 dB
Input / output connectors (HV)	7/16 female	HVM50K female montena proprietary	HVM200K female montena proprietary
Measurement connector	SMA female	SMA female	SMA female
Weight	280 g	800 g	1.4 kg
Dimensions (L x W x H)	62 x 31 x 42 mm	88 x 45 x 58 mm	100 x 95 x 109 mm

Ordering information

REFERENCE	DESCRIPTION
VDOT8G	Derivative high voltage divider, max voltage: 20 kV for 1 ns pulses, up to 4.5 GHz, input and output connectors: 50 ohm, 7/16 (f), measurement connector: 50 ohm, SMA female
VDOT8GS	Derivative high voltage divider, max voltage: 75 kV for 1 ns pulses, up to 2.4 GHz, input/output connectors: 50 ohm, proprietary HVM50K (f), measurement connector: 50 ohm, SMA female
VDOT200K	Derivative high voltage divider, max voltage: 200 kV for 1 ns pulses, up to 1.6 GHz, input/output connectors: 50 ohm, proprietary HVM200K (f), measurement connector: 50 ohm, SMA female

Related products / accessories

TYPE	DESCRIPTION
HVK50-O-xx	High voltage coaxial cable, type RG217/U, connectors: HVM50K(m) - open end xx = the cable length; available lengths are 0.5, 1 and 2 m
HVM50K-CA	High voltage coaxial connector, male, cable mounting (RG217/U), max. voltage 75 kV for 1 ns pulses
HVK200-O-xx	High voltage coaxial cable, type RG218/U, connectors: HVM200K(m) - open end xx = the cable length; available lengths are 0.5, 1 and 2 m
HVM200K-CA	High voltage coaxial connector, male, cable mounting (RG218/U), max. voltage 200 kV for 1 ns pulse
ITR200N-A	Passive integrator, T = 200 ns, up to 1.4 GHz, connectors : N - BNC
ITR1U2-A	Passive integrator, T = 1.2 us, up to 1 GHz, connectors : N - BNC
ITR12U-A	Passive integrator, T = 12 us, up to 200 MHz, connectors : N - BNC

An alternative to using a passive integrator is to perform the signal integration numerically using the oscilloscope and montena PULSELab software.

TYPE	DESCRIPTION	
PULSELab	Pulse measurement and processing software application,	
	Life time license for installation on one PC	