 REMO-HSE	HV-Voltmeter 110P – Series	Datasheet
	High Voltage Voltmeter	



Description:

- High voltage voltmeter for measuring low-energy electrostatic high voltages.
- Measures DC voltages up to $\pm 10\text{kV}$ (HV-11P), $\pm 20\text{kV}$ (HV-21P), $\pm 50\text{kV}$ (HV-51P), $\pm 100\text{kV}$ (HV-110P)
- Handheld meter consisting of measuring instrument, high voltage probe, lance, different measuring tips and space charge screen
- Measuring probe and instrument can easily be unscrewed and then operated spatially separated via an adapter

Features:

- Pulse-stable measuring input
- High measuring accuracy even in the case of superimposed ripple voltages with amplitudes up to 5%
- Space charge screening reduces corona losses during measurement
- A high internal resistance ensures a minimum impact on the measuring probe

- Digital display with automatic polarity indication and battery symbol
- Integrated earth detector indicates a possible defective or missing earthing of the meter
- Analogue output provides external signal processing
- Battery /mains operation

Options:


- Customized measuring tips

Typical Applications:

- Electrostatic filters
- Electrostatic spraying installations
- Electrostatic sorters and separators
- Electrostatic chargers and dischargers
- Ion implanters
- Etc.

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Technical Specifications

Measuring Range and Accuracy				
Model:	HV – 11P	HV – 21P *)	HV – 51P	HV – 110P
Nominal Voltage DC-Voltage (steady):	0 to ±10kV	0 to ±20kV	0 to ±50kV	0 to ±100kV
Maximal Voltage:	Up to 20% above nominal voltage for maximum 5 seconds			
Measuring Input:	Pulse-stable			
Input Resistance:	ca. 1,2GΩ	ca. 2,4GΩ	ca. 6GΩ	ca. 12GΩ
Resolution:	0,01kV		0,1kV	
Accuracy:	Better than ± (2 % + 2 Digits)			
Display:	3 ½ digit with automatic polarity indication			


*) indicates max. 19,99kV

Indicators				
Analog Output High Voltage:	0 to ±100mV DC for to 0 to ±10kV		0 to ±100mV DC for 0 to ±100kV	
Output Resistance:	ca. 10kΩ	ca. 20kΩ	ca. 5kΩ	ca. 10kΩ
Earthing Indicator:	LED lights red when earthing is missing			
Charge Level Indicator:	A battery symbol appears on the LCD-Display when the battery level is low.			
Charging Indicator:	A green LED indicates the charging process			

Environmental Data	
Temperature Range:	0 to +45°C, data sheet values apply to temperatures between +15 to +35 °C
Storage Temperature:	-25 to +70°C
Humidity:	80% maximum relative humidity up to +31°C, reducing linearly to 50% at +45°C. Non-condensing (ref. EN61010-1).
Altitude:	0 to 2000 m NN
Classification:	IP40

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Mechanical Data				
Model:	HV – 11P	HV – 21P	HV – 51P	HV – 110P
Space Charge Screen:	∅ ca. 80mm			
Length (Measuring Instrument and High Voltage Probe)	ca. 470mm	ca. 470mm	ca. 580mm	ca. 580mm
Length of Measuring Lance (partially plugged in High Voltage Probe)	ca. 250mm	ca. 250mm	ca. 360mm	ca. 500mm
Cable Length of Extension Adapter	ca. 5m			
Weight (Measuring Instrument and High Voltage Probe):	ca. 1,0 kg	ca. 1,0 kg	ca. 1,1 kg	ca. 1,1 kg

Connections	
Measuring Tips:	Brass ball and hook
Analog Output High Voltage:	Cinch connector
Earth Connection:	ca. 2m wire with dolphin clip
Battery Operation:	Neda 1604 9V or 6F 22 9V; ca. 50h continuous operation with 140mAh capacity
Power Adapter:	12V DC power socket 2,1 mm; mains and charging operation at 12V DC, current rating > 50mA

Model Selection Table: HV-Voltmeter **):		
Model Declaration	Nominal DC-Voltage	DC Analog Output
HV-Voltmeter 11P	0 to ±10kV	0 to ±100mV DC for 0 to ±10kV
HV-Voltmeter 21P	0 to ±20kV	
HV-Voltmeter 51P	0 to ±50kV	0 to ±100mV DC for 0 to ±100kV
HV-Voltmeter 110P	0 to ±100kV	

**): Further models available upon request

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Mechanical Drawings: HV-Voltmeter

