

$\label{eq:constraint} \mbox{VETTINER - SPECIFICATIONS} \\ \mbox{TAN } \delta \& \mbox{CAPACITANCE - High accuracy measurement instrument}$

AUTOMATIC SCHERING BRIDGE - SPC5000

DESIGNATION	High accuracy automatic Schering bridge - SPC5000			
	High accuracy automatic Schering bridge - SPC5000			
Dimensions & Weight Width (mm) Depth (mm) Height (mm)	SPC SCHERING BRIDGE 299, 797 nF 1,2171 % 520 mm (Rack case 19 ") 400 mm (Rack case 460 mm) 290 mm (Rack case 6 U)			
·Weight (Kg)	# 29 kg			
General Application Dielectric insulation qualification / status Power / Instrument Transformers insulation Generators insulation Bars / Coils insulation Cables insulation Power Capacitors insulation Liquid / solid dielectric samples All HV equipments insulation Laboratories, Production & Maintenance	ü ü ü ü ü ü			
Main Characteristics Technology		Soboring Price	dao Structuro	
Measuring Modes	Schering Bridge Structure UST, GST & GSTg			
Balancing Modes (Manual or/& Automatic, Both built-in)	Automatic / Manual (selection inside menu) Test ranges LCD Display Resolution Accuracy			
Main Measured Values (All displayed) Voltage Current Frequency Capacitance Tan Delta - Tan d P. factor - cos f Watt Loss Permittivity - er	0-:.999kV 0-6 A (&+) 45-65 Hz &+ 0-80 000 µF &+ 0-100 % &+ 0-1 0-100 kW 0-30	5 dgts. 4 dgts. 4 dgts. 7 dgts. 9 dgts. 4 dgts. 5 dgts. 5 dgts. 5 dgts.	0,1 V 0,1 µA 0,01 Hz 0,01 pF 1.10 ⁻⁶ (1ppm) 0.001 1 µW 0.001	0,5 % ±5 dgts 0,5 % ±5 dgts 0,01 % ±1 dgts 0,025 % ±5 dgts 0,025 % ±5 dgts 0,5 % ±1.10 -5 1,0 % ±1 dgt 1,0 % ±1 dgt 1,0 % ±1 dgt
Other Tests or interfaces Ambient Temperature T °C & Hydro % Option: Local Temp T °C / PT100, Resistivity r Software to drive tests & manage test results Interface: RS 232, USB for Tests storage, Vettiner - Benefits	ü ü ü			
Vettiner : Schering Bridge manufacturer since over 88 years (1933) Vettiner - Inventor of Null Oscilloscopic indicator Vettiner - Inventor of Automatic Schering Bridge HMI 10" Touch screen PC Control & sturdy ucontroller base	World most accurate technology for Tan delta HV Tests ü Vettiner patent ü ü			
PC Benefits & Built-in Excel & PDF conversion			ì	
Built-in interactive manual Easy use, very intuitive Calibration: Easy check & easy calibration No or reduced maintenance over time Sturdiness & reliability over time Total operator safety & ease of use Warranty After Sales Service	ü Calibration of only resistances & capacitances ü ü ü 1 year included, 2 or 3 or 5 years in option 10 years service guaranteed, over 50 years recorded			
Eventual Options or Accessories Connection Terminals Measuring cables - XX m under request Automatic Guard Potential regulator Measure & display of local Temp. Measure & display of permittivity e, e,/SPC Measure & display of resistivity r in DC Additional shunt or CT / high current tests Special protection / proof container Null Oscilloscopic indicator 3 Fixed frequencies Null Oscilloscopic indicator variable frequency Std Capacitor, Cn included or separated HV Generator, included or separated HV Generator, included or separated Variable resonating inductance HV Generator, included or separated AL XX-YY Sample test cell, liquids or solids Heating Control for self heating test cells Eventual on site setting up INSTAL. Eventual other requests SCT TCASPC XS SRA3 SPT/PSC e,/SPC GOSCB GOSCB GOSCB GOSCB GOSCFU CA/CS/CG AL XX-YY ALRI XX-YY Sample test cell, liquids or solids SC/SH TRAIN INSTAL.	UHF without any request, Lemo under simple request Length (XX m) can be adapted to your application, under simple request Already built-in parametric compensation for parasite capacitances & resistances of cables but SRA 3 option compulsory for test cells Usually not necessary for most production routine tests - Can be required for tests with test cells & some specific application Usually not necessary for most production routine tests - Can be required for tests with test cells & some specific application Can be required win few application. In main cases, a separate special test cell with a specific Mega/Tera-Ohmmeter i required Usually not necessary for tests in power plants - Nevertheless, available on request Supplied container are already proof when closed - Under request Usually not required for routine tests and required only for very specific application, under request only Usually not required for routine tests and required only for very specific application, under request only Std Capacitor XXXX kV - YYYY pF under request Typically, it can be built in for application on Test cells, 2 kV up to 5 kV when in rack case. For higher voltage, it is necessary separated Usually required for tests in power plants (MV/HV Generators, Motors) - Available on request Most test cells available inside Vettiner ranges, for liquid or solid dielectric samples - Under request Depends on need, under request Depends on need, under request Depends on need, under request			
Environment Operating Temperature Storage Temperature Calibration	−10 °C up to +50 °C −20 °C up to +60 °C			
 Vettiner calibration certificate included (BNM Traceable) External laboratory calibration (ISO17025,) 	Under request I date but could change without any notice at any time (Ex. dimensions or weight or else)			

Note: Some of the above technical data are valid at the above mentioned date but could change without any notice at any time (Ex. dimensions or weight or else...)

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