

## PRECISION C & tanδ METER

### DAC-PSC-20W



Introducing a current transformer type comparator bridge, DAC-PSC-20W gives automatic comparative measurement of a specimen (Cx) and the standard capacitor (Cs). The minimum resolution of tanδ is 0.001%. By selecting a standard capacitor, test voltage can be applied to a specimen at wide ranges from low to high voltage, and Capacitance can be also widely measured from small to large capacity. Capacitance ranges can be further extended by using extension CT.

#### Test Specimen

#### High and Low Voltage Capacitor

#### Features

- Precise measurement of Capacitance and tanδ
- Wide Range Measurement: Capacitance 1nF - 10μF\*  
\*(the wider range is available with expanding CT)
- Testing Voltage AC200V - 30kV
- Minimum Resolution of tanδ:  $1 \times 10^{-5}$  (10ppm)

#### Specifications

##### 1) Measuring Ranges<sup>\*1</sup>

	Standard Capacitor (Option)	
	1000pF	10000pF
Testing Voltage <sup>*2</sup>	2kV~30kV	200V~3kV
Capacitance (with Extension CT 100:1) <sup>*3</sup>	0.001μF~1μF (0.1μF~100μF)	0.01μF~10μF (1μF~1000μF)
tanδ	0.000 - 4.000%	
Nominal Value	Csx0.1 – Csx1000 (effective digit: 3 digits) <sup>*4</sup>	
Δ C	±20.00%	

\*1 The maximum measurable amp capacity is 8A.

Due to the capacity, measurable capacitance and measurable voltage may be limited.

\*2: 50/60Hz

\*3: When using DAC-CT-1. The maximum range is increased 100 times.

\*4: When DAC-CT-1 is ON, nominal value is increased 100 times.

##### 2) Input range of standard capacitor:

Capacitance(ΔC): ±5% of nominal value

Tanδ: 0.0000% - 0.0500%

##### 3) Measurement Accuracy

Capacitance: ±(0.1%rdg+3%Rdg+1digit)

Tanδ: ±(0.01%+3%Rdg+1digit)

##### 4) Interface:

USB (2.0/1.1, B type connector) and GP-IB

##### 5) AC source:

AC100V~240V±10%, 50/60Hz

##### 6) Size and Weight:

W430×H250×D450 (mm) approx. 25kg

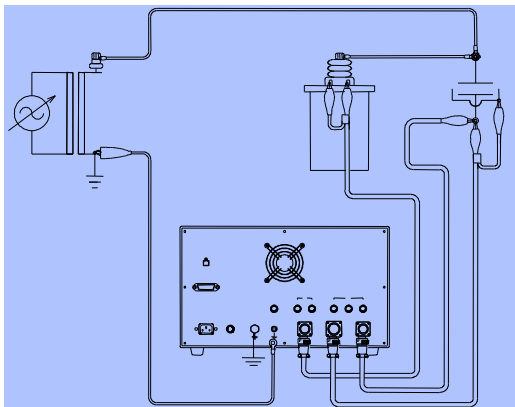
##### 7) Accessory:

Cs Connecting Cable (3M) x1, Cx Connecting Cable (3M) x1,  
Cd Connecting Cable (3M) x1, AC code x1,  
Grounding cable (3M) x1, Carrying bag x1,  
Sample software x1

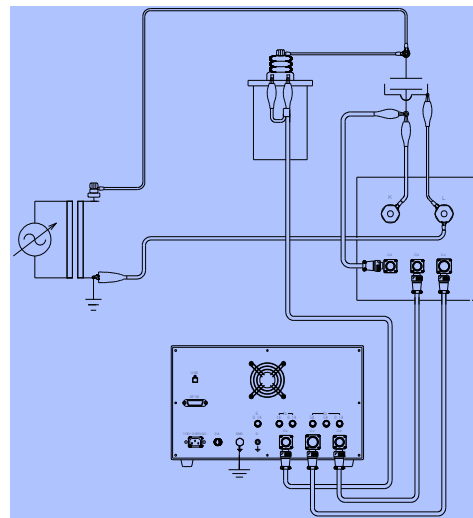
# Precision C & tan $\delta$ Meter DAC-PSC-20W

## Wiring Diagram

### ■ measurement without Expanding CT



### ■ measurement with Expanding CT



## Options

### EXPANDING CURRENT TRANSFORMER DAC-CT-1

DAC-CT-1 is a precise Expanding Current Transformer with a built-in Double CT. Measuring Capacitance range of DAC-PSC-20W can be expanded 100 times only by combining the unit.

Primary Current : 400A  
Class : 0.1  
Current Ratio : 100:1  
Size and Weight : W270xH365xD270 (mm) Approx. 7kg  
\*DAC-CT-2 (200:1) and DAC-CT-10 (1000:1) are also available.



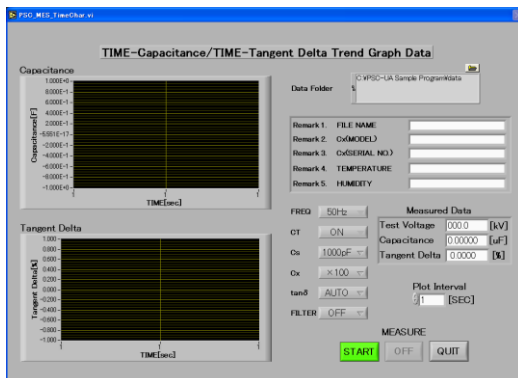
### STANDARD CAPACITOR DAC-Cs- 102A

DAC-Cs-102A is a three-terminal capacitor filled with SF6 gas. The unit can be combined with DAC-PSC-20W as a standard capacitor.

Rated Voltage : AC20kV 50/60Hz  
Nominal Capacitance : 1000pF  $\pm$ 1%  
tan  $\delta$  : <0.001%  
Filled Gas : SF6 gas 0.2Mpa(20°C)  
Size and Weight : W315xH708(mm) Approx. 31kg



## Sample Software



- Data acquisition is possible via USB interface.
- Remote computer operation is possible by setting up the measuring range of Cs, Cx, tan $\delta$  through the problem.
- The program displays measuring data graphically, and the data is saved to an optional folder in a txt format.

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