

# 3½ Digit AC/DC Volts / Amps / Hz

**CSM-321**

## ► FEATURES

- Measures and Displays DCA, DCV, ACA, ACV, Hz
- Accuracy: DC:  $\pm 0.1\%$ , AC:  $\pm 0.2\%$
- 3½ Digit display: 1999
- Peak Hold function (Option)
- Easy-to-wire, screw terminals
- High stability & low cost



## ► MEASUREMENT

| Measuring Range | Resolution    | Input Impedance | Variable to be Measured |
|-----------------|---------------|-----------------|-------------------------|
| Current         | 199.9 $\mu$ A | 0.1 $\mu$ A     | $\leq 1K$ ohm           |
|                 | 1.999 mA      | 0.001 mA        | $\leq 100$ ohm          |
|                 | 19.99 mA      | 0.01 mA         | $\leq 10$ ohm           |
|                 | 199.9 mA      | 0.1 mA          | $\leq 1$ ohm            |
|                 | 1.999 A       | 0.001 A         | $\leq 0.05$ ohm         |
|                 | 5.00 A        | 0.01 A          | $\leq 0.02$ ohm         |
|                 | 10.00 A       | 0.01 A          | $\leq 0.01$ ohm         |
| Voltage         | 199.9 mV      | 0.1m V          | $\geq 5M$ ohm           |
|                 | 1.999 V       | 0.001 V         | $\geq 1M$ ohm           |
|                 | 19.99 V       | 0.01 V          | $\geq 1M$ ohm           |
|                 | 199.9 V       | 0.1 V           | $\geq 1M$ ohm           |
|                 | 300 V         | 1 V             | $\geq 1M$ ohm           |
|                 | 600 V         | 1 V             | $\geq 1M$ ohm           |
| Freq.           | 199.9 Hz      | 0.1 Hz          | Hz                      |
|                 | 1999 Hz       | 1 Hz            |                         |

## ► SPECIFICATION

Measuring accuracy: DC / AC  $\pm 0.1\%$  F.S.  $\pm 1$  digit /  $\pm 0.2\%$  F.S.  $\pm 1$  digit  
 Span adjustment:  $\leq 10\%$  of F.S.  
 Zero adjustment:  $\leq 2\%$  of F.S.  
 Sampling time: Circa 3 cycles/sec.  
 Polarity indication: When input is negative "-"  
 Over-range indication: "1" display  
 Max. input over capability: Voltage: 1.2 x rated continuous  
 1.5 x rated for 10 seconds  
 Current: 10 x rated continuous  
 Decimal point: Set by jumper behind front  
 Operating temperature: 0-60°C  
 Operating relative humidity: 20-95 %RH  
 Temperature coefficient:  $\leq 100$  PPM/°C (0-50°C)  
 $\leq 50$  PPM/°C (23 $\pm$ 3°C)  
 Storage temperature: -10-70°C  
 Power Supply: AC 115/230V  $\pm 10\%$ , 50/60 Hz  
 Option: DC 5 V, 12V, 24V, 48V  $\pm 10\%$   
 (Isolated)  
 Excitation supply: Option: DC 10V, 12V, 24V, 30mA  
 Power consumption: DC 3W, AC 4.5VA  
 Dielectric Strength: AC 2.0KV for 1 min (Power / Input)  
 AC 3.0KV for 1 min (Terminal / Case)  
 Weight: 370g

## ► ADJUSTMENT

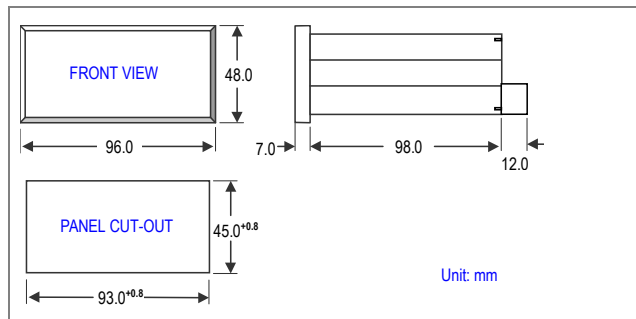
- Zero Adjust Pot for AC only (Clockwise: PV increase)
- Span Adjust Pot (Clockwise: PV increase)
- Zero Adjust Pot for DC only (Clockwise: PV increase)
- Jumper for Decimal Point
- Display Range Selection

5 Display Range Selection:

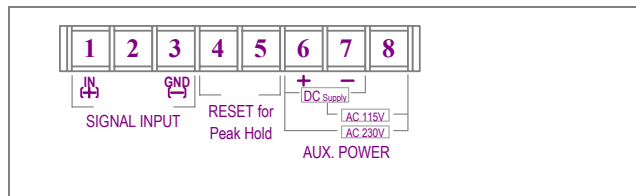
| Section | Jumper    | Display Range | Section | Jumper    | Display Range |
|---------|-----------|---------------|---------|-----------|---------------|
| 1       | [Diagram] | 1999-1700     | 5       | [Diagram] | 900-625       |
| 2       | [Diagram] | 1725-1300     | 6       | [Diagram] | 625-425       |
| 3       | [Diagram] | 1300-900      | 7       | [Diagram] | 425-300       |
| 4       | [Diagram] | 1200-825      | 8       | [Diagram] | 300-200       |

4 Decimal Point Jumper: [Diagram showing jumper on 19.99]

## ► DIMENSIONS



## ► CONNECTION DIAGRAM



## ► ORDER CODING

