

# 3 1/2 DIGITAL PANEL METER

**CSMM-321**

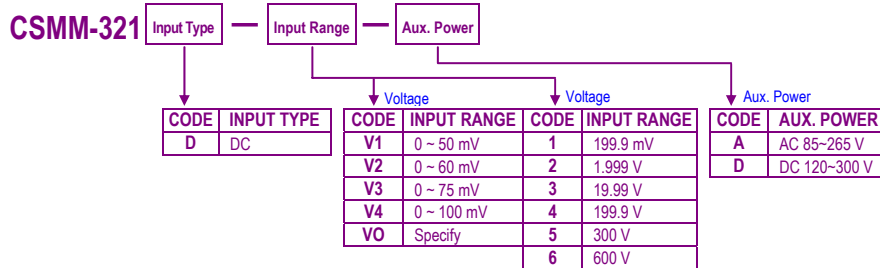
## FEATURE

- Measuring DCV from 1mV~1000V
- Accuracy:  $\pm 0.1\%$
- 3 1/2 Digital display: 1999
- Switching powered 85~265Vac/120~300Vdc
- Easy-to-wire, screw type terminal
- Outside dimensions is 72x36mm
- High stability & low cost

*Newest panel meter*



## ORDER INFORMATION



## TECHNICAL DATA

Measuring Range	Resolution	Input Impedance	Variable to be measured
Voltage	100.0 mV	0.1 mV	DC
	199.9 mV	0.1 mV	
	1.999 V	0.001 V	
	19.99 V	0.01 V	
	199.9 V	0.1 V	
	300 V	1 V	
	600 V	1 V	

**Accuracy:**  $\leq \pm 0.1\%$  F.S.  $\pm 1$  digit

### Display

- Display range adjustment: potentiometer on pcb
- Sampling time: About 3 cycles/sec.
- Polarity indication: When input is negative " - "
- Over-range indication: " 1 " display

### Scaling

- Span adjustment: Coarse adjustment 10~100% of F.S.  
Fine adjustment  $\leq 10\%$  of F.S.
- Zero adjustment: Fine adjustment  $\leq 5\%$  of F.S.
- Decimal point: Selectable jumper pin on pcb

### Power

- Power Supply: 85~265Vac and 120~300Vdc
- Power consumption: 3VA or 3.5W

### Environmental

- Operating temperature: 0~60 °C
- Operating relative humidity: 20~95 %RH, non-condensing
- Temperature coefficient:  $\leq 100$  PPM/°C (0~50°C)  
 $\leq 50$  PPM/°C (23 $\pm$ 3°C)

- Storage temperature: -10~70 °C
- Protection: Front panel: IP42

### Specification

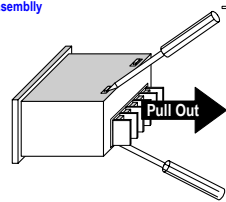
- Dielectric Strength: AC 2.0KV for 1 min  
(Between Input / Powered / Case)
- Insulation:  $\geq 100M$  ohm
- RFI/EMI: EN50081-1, EN50082-2
- Electrical Safety: EN60950, EN61010
- Max. input over capability: 1.2 x rated continuous  
1.5 x rated for 10 seconds

### Mechanical

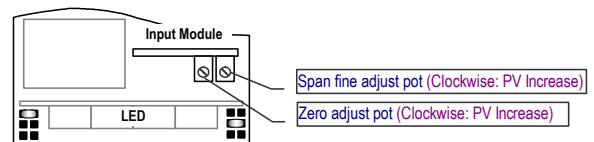
- Dimensions: 72(W) x 36(H) x 45(D)mm
- Panel cut-off: 68.5 x 32.5 mm $\pm$ 0.5 mm
- Housing material: ABS, fire-extinguished
- Weight: 120g

## ADJUSTMENT

Disassembly



Display Range pads and Decimal point pads



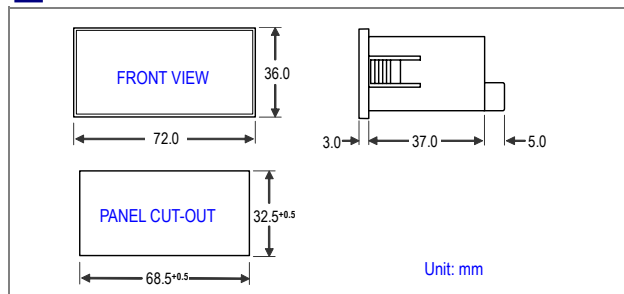
Decimal point pads

- 1.999 (Soldering Pads)
- 19.99 (Soldering Pads)
- 199.9 (Soldering Pads)

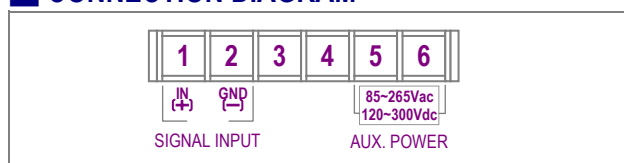
Coarse Display Range pads

- 0~199 counts (Soldering Pads)
- 199~600 counts (Soldering Pads)
- 600~1000 counts (Soldering Pads)

## DIMENSIONS



## CONNECTION DIAGRAM



**A-1a**