3 1/2 DIGITAL PANEL METER- 1/32 DIN   CSMS-321

Miniature panel meter

■ FEATURE

● Measuring DCA, DCV, ACA, ACV, Temperature
● Accuracy: DC : ± 0.1%; AC : ± 0.25%;
            Pt100 : ± 0.2%; Type K, J : ± 1%
● 3 1/2 Digital display: 1999
● Easy-to-wire, screw type terminal
● Outside dimensions is 1/32 DIN standard (48x24mm)
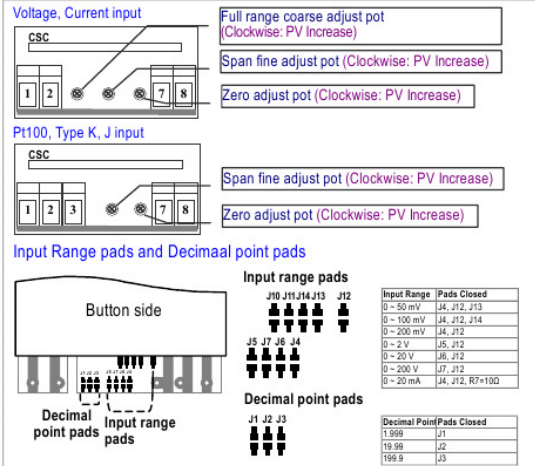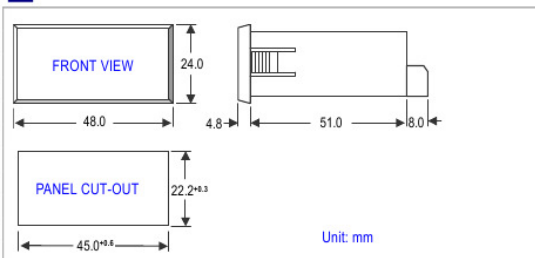● High stability & low cost

■ MEASUREMENT

Measuring Range		Resolution	Input Impedance	Variable to be measured
Current	199.9 µA	0.1 µA	≤ 1K ohm	DC AC
	1.999 mA	0.001 mA	≤ 100 ohm	
	19.99 mA	0.01 mA	≤ 10 ohm	
	199.9 mA	0.1 mA	≤ 1 ohm	
	1.999 A	0.001 A	≤ 0.05 ohm	
Voltage	199.9 mV	0.1 mV	≥ 5M ohm	
	1.999 V	0.001 V	≥ 1M ohm	
	19.99 V	0.01 V	≥ 1M ohm	
	199.9 V	0.1 V	≥ 1M ohm	
	250 V	1 V	≥ 1M ohm	
Temp.	T/C: Type K 0~1200°C		≥ 1M ohm	°C
	T/C: Type J 0~750°C		≥ 1M ohm	
	RTD: Pt100 −40.0~199.9°C		≥ 1M ohm	
	RTD: Pt100 0~600°C		≥ 1M ohm	

◢Measuring accuracy: DC: ±0.1% F.S. ±1 digit
                            AC: ±0.25% F.S. ±1 digit
                            T/C: ±1% F.S. ±1 digit
                            Pt100: ±0.2% F.S. ±1 digit
◢Measuring range: Selectable soldering pads on pcb of rear side
◢Decimal point: Selectable soldering pads on pcb of rear side
◢Span adjustment: Rough adjustment 10~100% of F.S..
                            Fine adjustment ≤ 10% of F.S.
◢Zero adjustment: ≤ 5% of F.S.
◢Sampling time: About 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: 1.2 x rated continuous
◢Operating temperature: 0~60 °C
◢Operating relative humidity: 20~95 %RH
◢Temperature coefficient: ≤ 100 PPM/°C (0~50°C)
                            ≤ 50 PPM/°C (23 ±3°C)
◢Storage temperature: -10~70 °C
◢Power Supply: DC 5V, 12V, 24V ±10% (Isolated)
◢Power consumption: 700 mW
◢Dielectric Strength: AC 500V for 1 min (Between Power / Input)
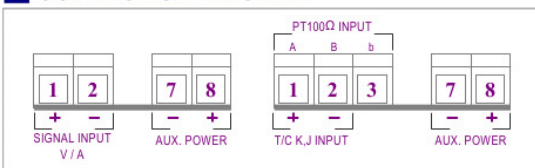   AC 2.0KV for 1 min (Between Terminal / Case)
◢Weight: 350g

■ ADJUSTMENT

Voltage, Current input

CSC

Full range coarse adjust pot (Clockwise: PV Increase)
Span fine adjust pot (Clockwise: PV Increase)
Zero adjust pot (Clockwise: PV Increase)

Pt100, Type K, J input

CSC

Span fine adjust pot (Clockwise: PV Increase)
Zero adjust pot (Clockwise: PV Increase)

Input Range pads and Decimaal point pads

Button side

Input range pads

J10 J11 J14 J13   J12
J5 J7 J6 J4

Input Range	Pads Closed
0 ~ 50 mV	J4, J12, J13
0 ~ 100 mV	J4, J12, J14
0 ~ 200 mV	J4, J12
0 ~ 2 V	J5, J12
0 ~ 20 V	J6, J12
0 ~ 200 V	J7, J12
0 ~ 20 mA	J4, J12, R7=10Ω

Decimal point pads   Input range pads

Decimal point pads

J1 J2 J3

Decimal Point	Pads Closed
1.999	J1
19.99	J2
199.9	J3

■ DIMENSIONS

FRONT VIEW   24.0
48.0   4.8   51.0   8.0

PANEL CUT-OUT   22.2+0.3
45.0+0.6

Unit: mm

■ CONNECTION DIAGRAM

PT100Ω INPUT
A   B   b

1	2		7	8		1	2	3		7	8
+	−		−	+		+	−			−	+

SIGNAL INPUT V / A   AUX. POWER   T/C K,J INPUT   AUX. POWER

■ ORDER INFORMATION

CSMS-321 [Input Type] — [Input Range] — [Aux. Power]

		Current		Voltage		Temperature		Aux. Power	
CODE	INPUT TYPE	CODE	INPUT RANGE	CODE	INPUT RANGE	CODE	INPUT RANGE	CODE	AUX. POWER
D	DC	A	199.9 µA	1	0 ~ 50 mV	K	K 0~1200°C	D5	DC 5 V
A	AC	B	1.999 mA	2	199.9 mV	J	J 0 ~ 750°C	D12	DC 12 V
T	Temperature	C	19.99 mA	3	1.999 V	P1	Pt100 −40.0~199.9°C	D24	DC 24 V
		D	199.9 mA	4	19.99 V	P2	Pt100 0~600°C	DO	Specify DC
		E	1.999 A	5	199.9 V	O	Specify		
		F	4 ~ 20 mA	6	250 V				
		G	0 ~ 1 mA	7	1 ~ 5 V				
		H	0 ~ 10 mA	8	0 ~ 10 V				
		I	0 ~ 20 mA	9	0 ~ 5 V				
		AO	Specify (A i/p)	VO	Specify (V i/p)				