

VOLT / AMP METER

CS1-VA_(1.0)

CS1-VA

FEATURE

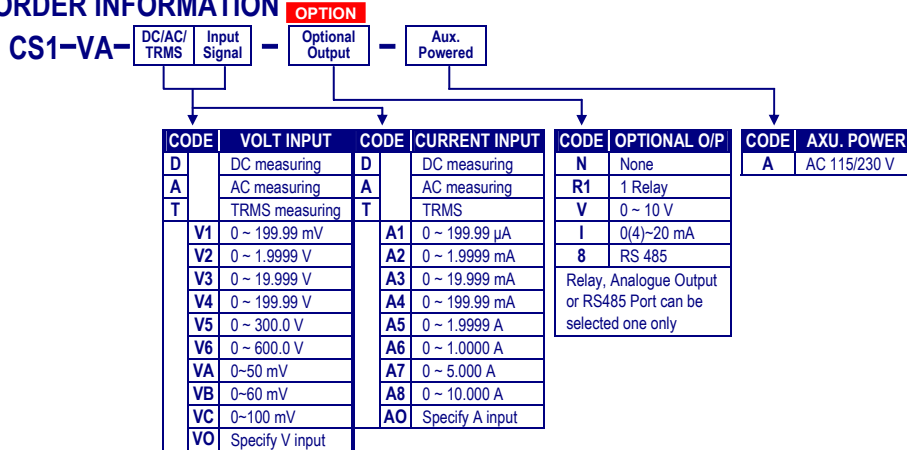
- Measuring Voltage or Current for DC / AC / TRMS
- Accuracy: $\pm 0.04\%$ or $\pm 0.1\%$; Display range: -19999~29999
- User function, Easily programmable via the front panel
- 1 relay, 1 Analogue output or RS 485 communication port in option with flexible functions
- CE Approved

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The Newest

ORDER INFORMATION

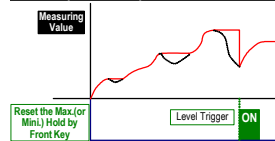


SPECIFICATION

| Measuring Range DC / AC / TRMS | | Input Impedance | Measuring Range DC / AC / TRMS | | Input Impedance |
|--------------------------------|---------------|-----------------|--------------------------------|------------------|-----------------|
| Voltage | 0~50/~100 mV | $\geq 5M$ ohm | Current | 0~199.99 μ A | 1K ohm |
| | 0~199.99 mV | $\geq 5M$ ohm | | 0~1.9999 mA | 100 ohm |
| | 0~1.9999 V | $\geq 1M$ ohm | | 0~19.999 mA | 10 ohm |
| | 0~19.999 V | $\geq 1M$ ohm | | 0~199.99 mA | 1 ohm |
| | 0~199.99 V | $\geq 1M$ ohm | | 0~1.9999 A | 0.05 ohm |
| | 0~300.0 V | $\geq 2M$ ohm | | 0~5.000 A | 0.02 ohm |
| 0~600.0 V | $\geq 2M$ ohm | 0~10.000 A | 0.01 ohm | | |

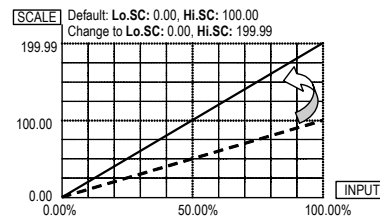
- Calibration: System calibration by front key
- Accuracy: DC: $\leq \pm 0.04\%$ of FS $\pm 1C$; AC: $\leq \pm 0.1\%$ of FS $\pm 1C$; ≤ 100 msec.(when the AvG = "1")
- Response time: ≤ 100 msec.(when the AvG = "1")
- Operating
- Operation key: 4 keys for Enter(Function) / Shift(Escape) / Up / Down key: decrease the number / go to next function Shift key: move the flash digit position / Return back to upper level Enter/Fun key: enter the parameters you set or function select
- Key control input: Down key can be defined to be Relative PV / PV Hold / Maximum/Minimum reset / Reset for Relay Hold
- Security function: 4 digits password
- Lock function: 3 function group lock level for None/User Level/ Engineer Level / All(Engineer Level & User Level)
- Display & functions
- LED: Measuring value: 0.56" red high-brightness LED Relay output indication: square red LED RS 485 communication: square red LED Max. / Mini. Hold: square red LED Low.cut :Settable range: -19999~19999 counts AvG :Settable range: 1~99 times D.FiLt : Settable range: 0(None)/1~99 times
- Over range indication: ovFL, when input is over 120% of input range Hi
- Under range indication: -ovFL, when input is under -120% of input range Lo
- Display functions: Present Value / Maximum Hold / Minimum Hold / Write to display by RS485 command

Max. (or Mini.) Hold & Reset



Scaling

- Scaling function: Hi.SC(High scale): -19999~29999 Lo.SC(Low scale): -19999~29999

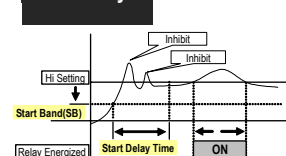


- Decimal point: Settable from 0 / 0.0 / 0.00 / 0.000 / 0.0000

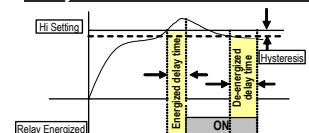
Control functions

- Control relay: 1 Relay SPDT, 5A/230Vac, 10A/115V
- Relay Output: Energized levels compare with set-points: Hi / Lo / Hi hold / Lo hold energize selectable Start delay / Energized & De-energized delay / Hysteresis Start band: 0~9999 counts Start delay time: 0:00.0~9(Minutes):59.9(Second) Energized delay time: 9(Minutes):59.9(Second) De-energized delay time: 9(Minutes):59.9(Second) Hysteresis: 0~5000 counts

Start Delay



Energized / De-energized Delay & Hysteresis



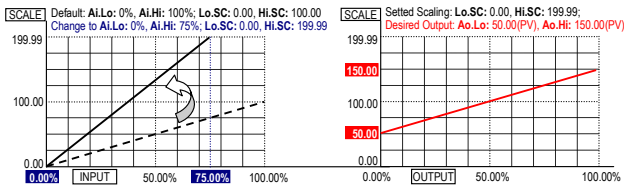
A1-01

Analogue output(option)

- Accuracy: $\pm 0.2\%$ of F.S.;
- Ripple: $\pm 0.1\%$ of F.S.
- Response time: ≤ 200 msec. (10~90% of input)
- Isolation: AC 2.0 KV between input and output
- Output range: Specify Voltage or Current
Voltage: 0~5V / 0~10V / 1~5V selectable
Current: 0~10mA / 0~20mA / 4~20mA selectable

- Output Capability: **Voltage: 0~10V: $\geq 1000\Omega$;**
Current: 0(4)~20mA: $\leq 600\Omega$

- Functions: **Ao.Lo(output range Low): PV Low vs. output range Lo**
Ao.Hi(output high): PV Hi vs. output range Hi



RS 485 communication(optional)

- Protocol: Modbus RTU mode
- Baud rate: Selectable 2400/4800/9600/19200/38400
- Data bits: Selectable 7 or 8 bit
- Parity: Selectable Even, odd or none (with 1 or 2 stop bit)
- Device no: Settable 1 ~ 255
- Write function: Write to display value from PC's RS485 command

Power

- Power Supply: AC 115/230V $\pm 10\%$, 50/60Hz
- Power consumption: 5VA
- Back up memory: By EEPROM

Environmental

- Operating temperature: 0~60 °C
- Operating relative humidity: 20~95 %RH, Non-condensing
- Temperature coefficient: ≤ 100 PPM/°C
- Storage temperature: -10~70 °C
- Enclosure: Front panel: IEC 549 (IP54)

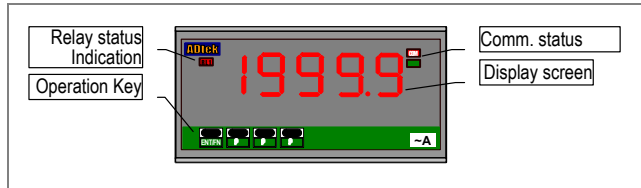
Electrical safety

- Dielectric Strength: AC 2.0 KV for 1 min
Between Power / Input / Output / Case
 $\geq 100M$ ohm at 500Vdc
- Insulation resistance: Between Power / Input / Output
- Isolation: EN61326
- EMC: EN61010
- Safety: EN61010

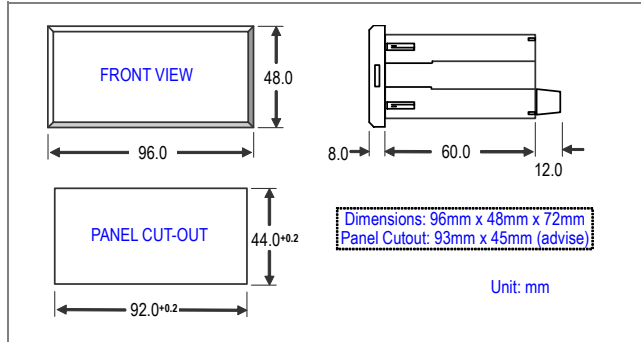
Mechanical

- Dimensions: 96mm(W) x 48mm(H) x 72mm(D)
- Panel cutout: 92mm(W) x 44mm(H)
- Case Material: ABS fire-protection (UL 94V-0)
- Mounting: Panel flush mounting
- Terminal block: Plastic NYLON 66 (UL 94V-0)
#A1~A3(current input): 20A/300Vac, M3.5, 12~22AWG
Others: 10A 300Vac, M2.6, 16~22AWG
- Weight: About 350g

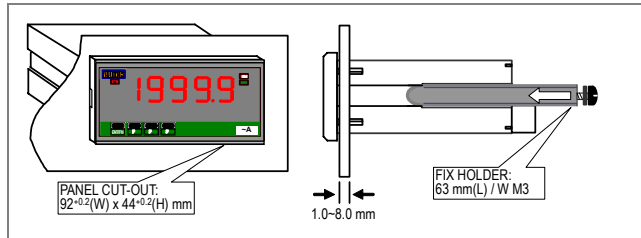
FRONT PANEL



DIMENSIONS



INSTALLATION



CONNECTION DIAGRAM

