

User Guide For CT Series

1. Features

- Supports PAE and PEK Series Programmable power supplies (not PAK Series)
- Support max. 8 unit serial or parallel control function
- Support RS232/485 protocol
- Easy installation for serial or parallel control.

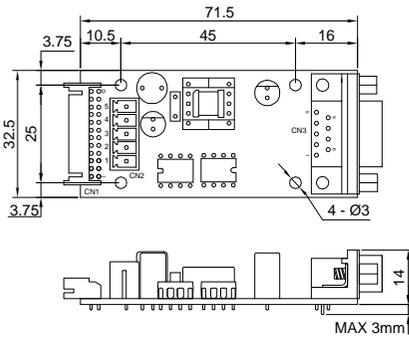
2. Specification

- Input Voltage: 5Vdc
- Operating Temperature Range: -10°C ~ 60°C
- Storage Temperature Range: - 30°C ~ 70°C
- Baud rate: 4800, N, 8, 1
- Connector: DB-9F fo RS232, RJ-11 (6P4C) for RS485
- Optical Isolation: I/P - O/P: 2500Vac rms for 1 minute

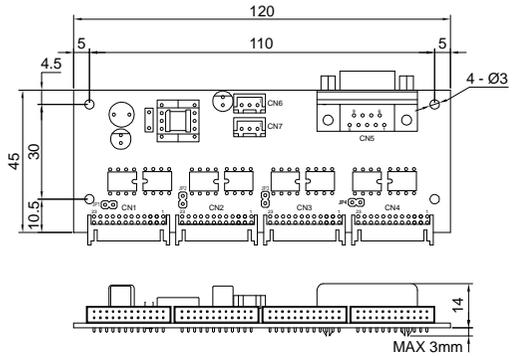
3. Mechanical dimension

Unit: mm

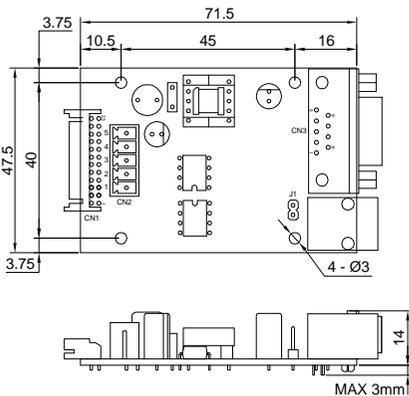
MODEL: CT-201



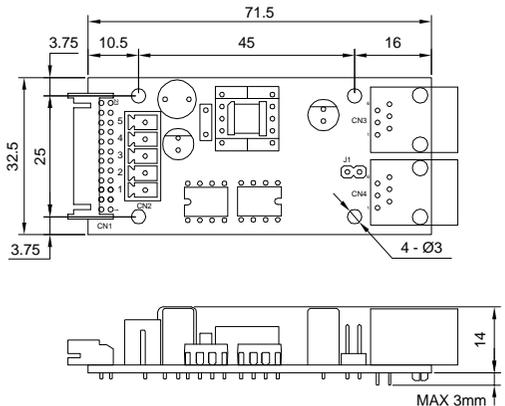
MODEL: CT-204



MODEL: CT-251



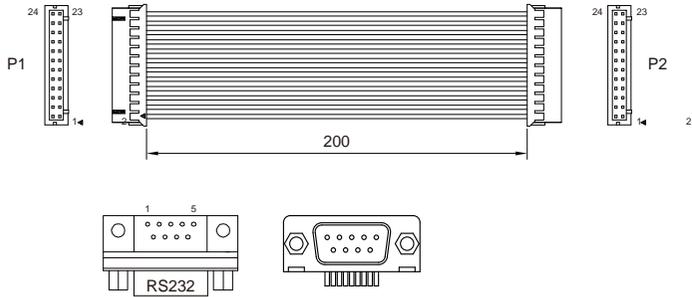
MODEL: CT-551



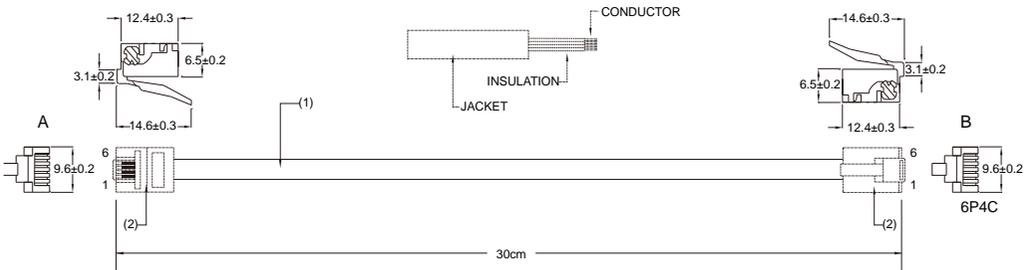
4. CT series cable drawing

- CT series cable
Part no.47-0124-0001)

| Mating Housing / Contact | |
|--------------------------------|--|
| JST PHDR-24VS or equivalent | JST SPHD-002T-P0.5 or equivalent |



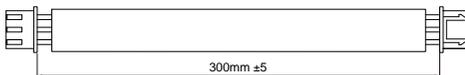
- CT parallel cable
(For CT-551 Only)
(Part no. 47-0106-0003)





WARNING!
DO NOT use standard telephone cable.

- CT-204 to CT-204 series cable (Optional)
Part no. (47-0103-0028)



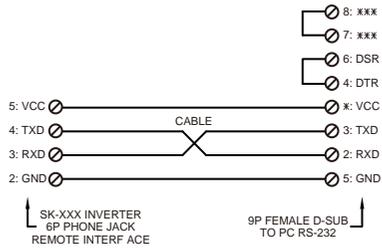
5. Accessories

| MODEL \ Accessories | User Guide | CT series cable | CT parallel cable | EC350R-05P connector | CT-204 to CT-204 series cable |
|---------------------|------------|-----------------|-------------------|----------------------|-------------------------------|
| CT-201 | 1 | 1 | --- | 1 | --- |
| CT-204 | 1 | 4 | --- | --- | Optional |
| CT-251 | 1 | 1 | --- | 1 | --- |
| CT-551 | 1 | 1 | 1 | 1 | --- |

6. Pin assignment

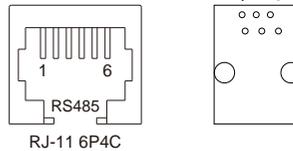
- DB-9F RS232 (only for CT-201/204/251)

| | |
|---|-----|
| 1 | NC |
| 2 | RxD |
| 3 | TxD |
| 4 | NC |
| 5 | GND |
| 6 | NC |
| 7 | NC |
| 8 | NC |
| 9 | NC |



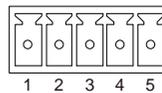
- RJ-11 6P4C RS485 (only for CT-251/551)

| | |
|---|--------|
| 1 | NC |
| 2 | GND |
| 3 | DATA + |
| 4 | DATA - |
| 5 | +5V |
| 6 | NC |



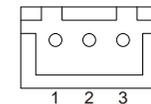
- ECH350V-05P DINKLE (only for CT-201/251/551)

| | |
|---|------|
| 1 | GND |
| 2 | AUX |
| 3 | PAR |
| 4 | VS - |
| 5 | VS + |



- B-XH-A 180°C (only for CT-204)

| | |
|---|-----|
| 1 | GND |
| 2 | RxD |
| 3 | TxD |



- Control Pin connections: JST S24B-PHDSS or equivalent

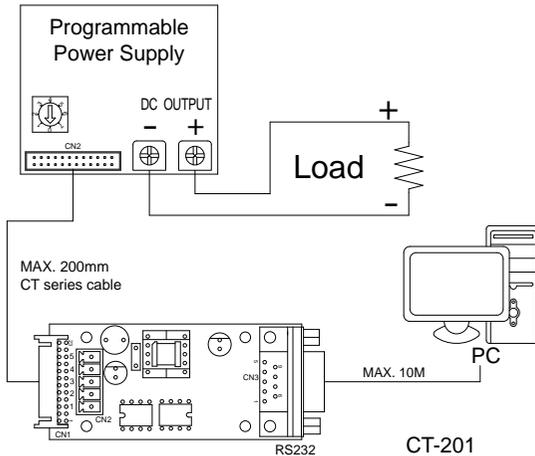
| Pin No. | Assignment |
|---------|------------|---------|------------|---------|------------|---------|------------|---------|------------|
| 1 | VS+ | 6 | GND | 11 | EN+ | 16 | GND | 21 | AUX |
| 2 | VO+ | 7 | PAR | 12 | AUX | 17 | AUX | 22 | GND |
| 3 | VS- | 8 | VSET | 13 | ACI | 18 | GND | 23 | NC. |
| 4 | VO- | 9 | EN- | 14 | GND | 19 | SCL | 24 | NC. |
| 5 | POK | 10 | GND | 15 | VCI | 20 | SDA | | |

7. CT Series Quick Feature Guide

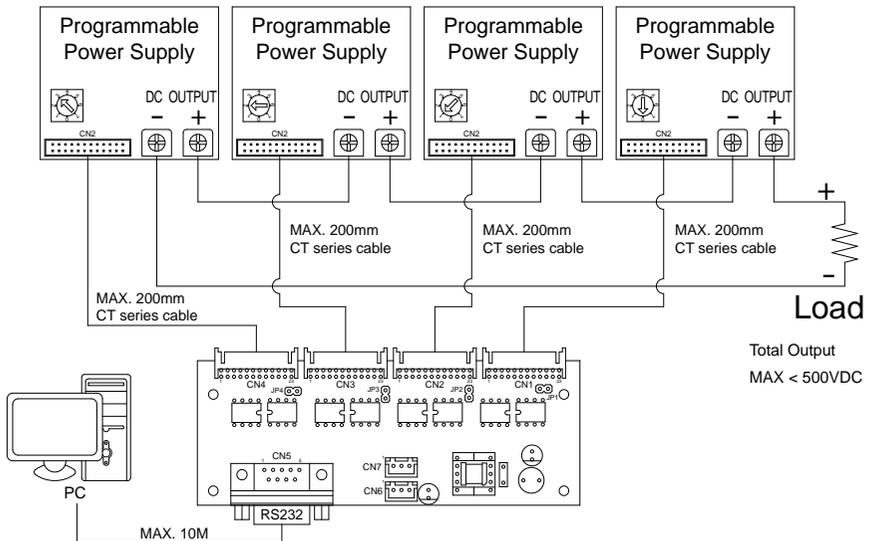
| Function MODEL | Parallel / Remote sense | To Host | Power Connection | RS485 Expansion | RS232 Expansion |
|-------------------|----------------------------|---------------|---------------------|--------------------|--------------------|
| CT-201 | ✓ | RS-232(DB-9F) | 1 Unit | X | X |
| CT-204 | X | RS-232(DB-9F) | 4 Units | X | ✓ |
| CT-251 | ✓ | RS-232(DB-9F) | 1 Unit | ✓ | X |
| CT-551 | ✓ | --- | 1 Unit | ✓ | X |

8. Application Notes

MODEL: CT-201

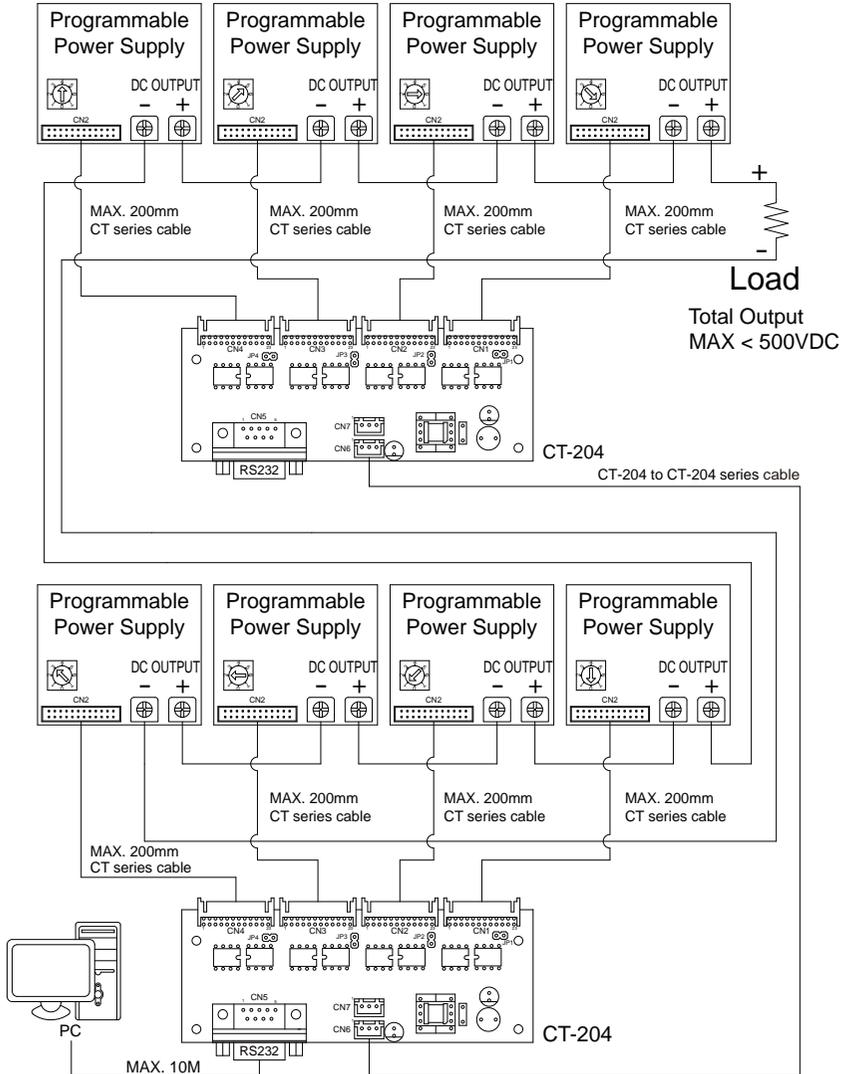


MODEL: CT-204 Series Control 4 EUT.

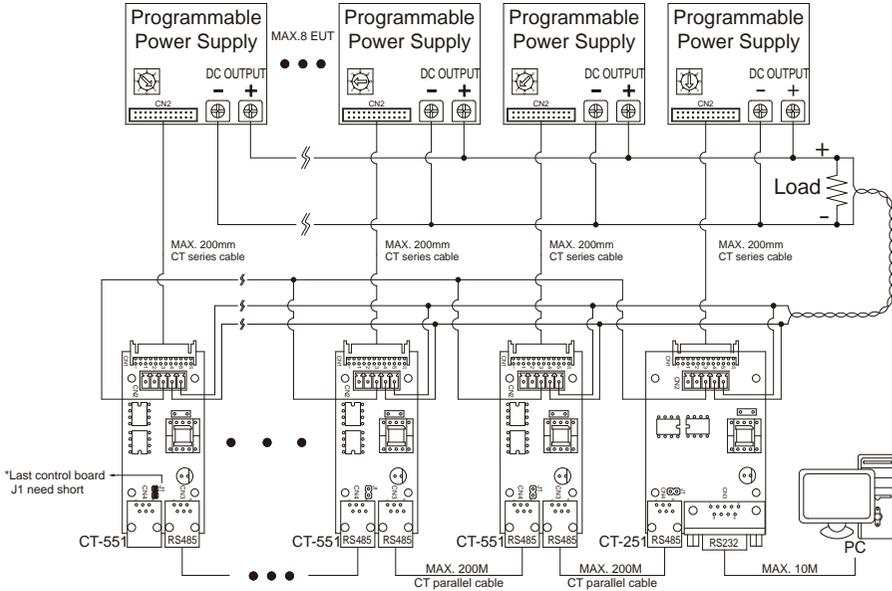


CT-204

MODEL: CT-204 Series Control 8 EUT.



MODEL: CT-251 / 551 Parallel Control with Remote Sensing



Before using RS232/485 to control programmable SMPS, make sure to read the following notes:

1. Make sure the voltage and current setting has been correctly delivered to EUT before setting the command (Power <type>) to turn on / off the power supply. If OVP, or OLP LED signal has been activated due to incorrect operation, enter command POWER <type> will allow you to operate the EUT and setting command.
2. Every RS232/485 command character must be entered within 400ms, the ending point is judged by CR LF (0D0A), program will disregard the command if the command entering time exceeds 400ms per character.
3. After shut-down of the power of EUT, command setting will return to default, local mode.
4. After power on the EUT with command execution complete, EUT will switch to remote mode with orange LED signal status. For detail LED signal info, please refer to the EUT datasheet.
5. Please refer to the CT-xxx user manual (Page 02) for the cable spec. connect in between the CT-xxx controller board and EUT. Make sure to connect the cable as instructed on the user manual to avoid CT-xxx damage.
6. CT-xxx boards could support max. 8 units serial or parallel control function (ADDS 0-7). Before controlling the EUT, make sure the address is not in conflict with each other.
7. When controlling multiple EUT's, make sure to query the Address (ADDS x) first before entering command to avoid EUT retrieving the incorrect value. If only single EUT, there is no need to query ADDS before entering command.