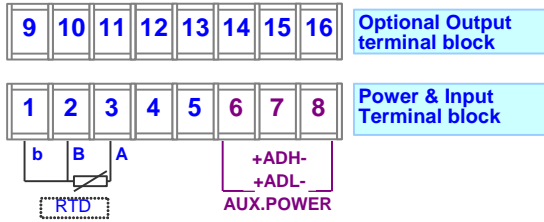


# CM2-TR 4 Digital Temperature(RTD) Meter Manual

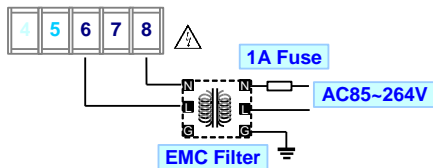
## Pin Assignment

Terminal blocks:  
20A/300Vac, M3.5, 1.3~3.5mm<sup>2</sup> (22~12AWG)



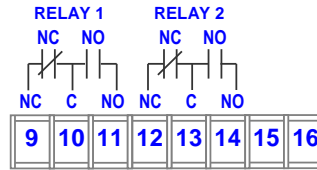
⚠ Please check the voltage of power supplied first, and then connect to the specified terminals. It is recommended that power supplied to the meter be protected by a fuse or circuit breaker.

### Power Connection

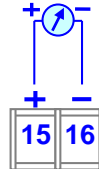


### Output

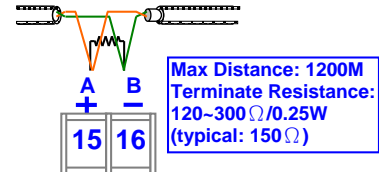
#### Relay output



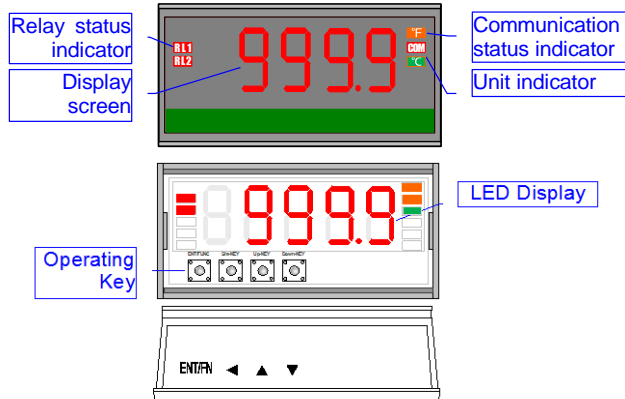
#### Analog output



#### RS485 Port



## FRONT PANEL



### Number Screen:

- **8888**: Red high-brightness LED for 4 digital present value
- °C / °F: Temperature unit, °C green / °F yellow high-brightness LED

### Output LED:

- Relay action 2 square red  
**RL1**: display when Relay 1 action  
**RL2**: display when Relay 2 action
- **COM** RS 485 communication: 1 square orange LED, **COM** will flash when the meter is receive or send data, and **COM** flash quickly means the data transient quicker.
- **Operating Key**: 4 keys for **ENTR** Enter(Function) / **ESCAPE** Shift(Escape) / **UP** Up key / **DOWN** Down key

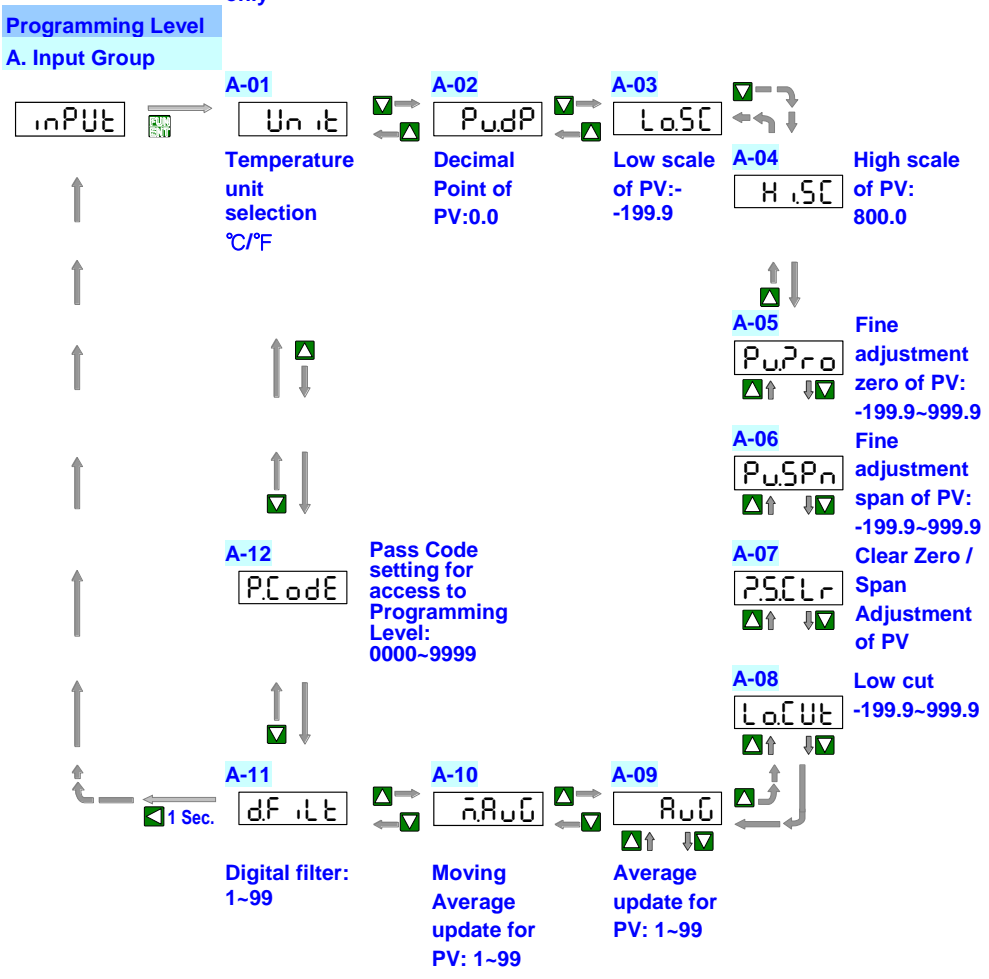
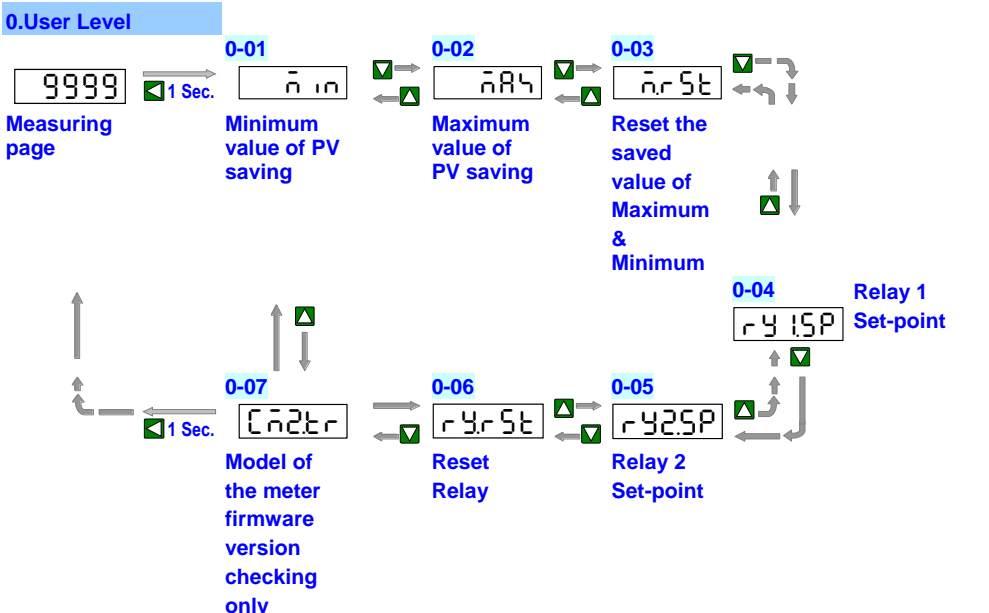
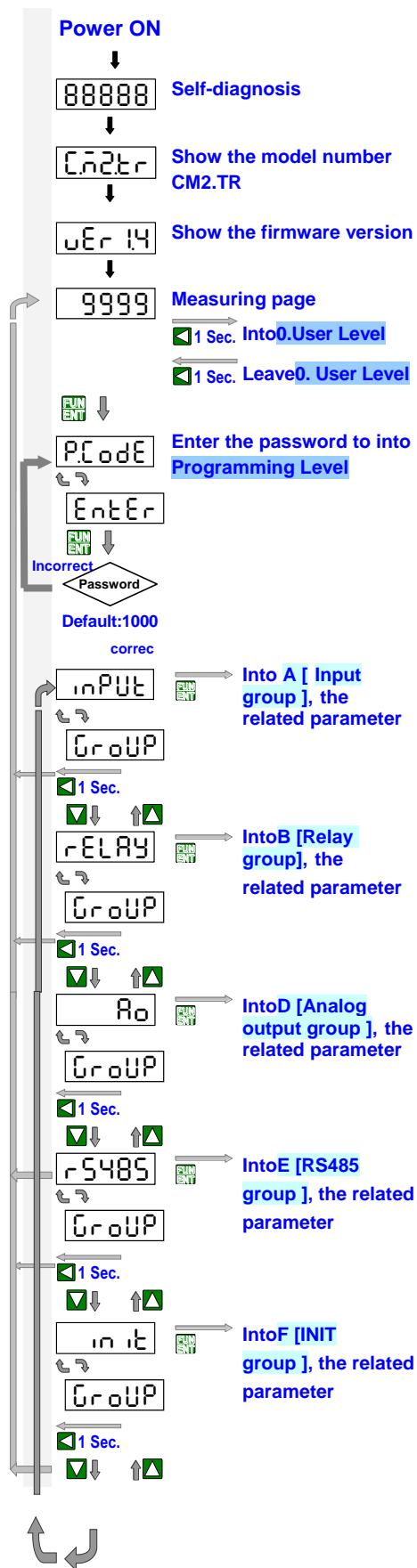
## Operating Key:

\* Please access to the Programming Level to check and set the parameters when users start to run the meter \*

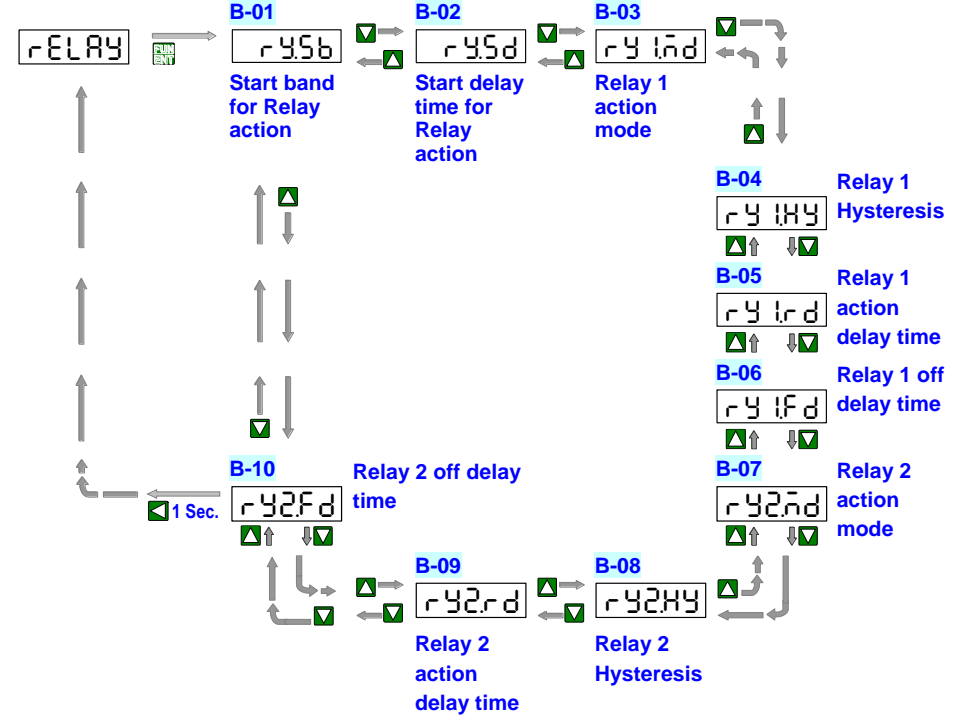
- Operating Key: 4 keys for **ESCAPE** Shift(Escape) / **UP** Up key / **DOWN** Down key / **ENTR** Enter(Function).
- The meter has designed operation similar as PC's **←** **→** and **Enter**. In any page, press **ENTR** means "enter" or "confirm setting", and press **ESCAPE** means "escape (**Esc**)" or "shift".
- In Programming Level, the screen will return to Measuring Page after do not press any key over 2 minutes, or press **ESCAPE** for 1 second.

	Function Index	Setting Status
<b>ENTR</b> (= <b>ENTR</b> ) Enter/Fun key	(1) In any page, press <b>ENTR</b> to access the level or function index (2) From the index to access setting status	(3) Setting Confirmed, save to EEPROM and go to next function index.
<b>ESCAPE</b> (= <b>ESCAPE</b> ) Shift key	(1) In measuring page, press <b>ESCAPE</b> for 1 second to access user level (2) In function index, press <b>ESCAPE</b> for 1 second to go back upper level (3) In function group index, press <b>ESCAPE</b> for 1 second to go back measuring page	(4) In setting status, press <b>ESCAPE</b> to Shift the setting position. (5) In setting status, press <b>ESCAPE</b> for 1 second to abort setting and go back this function index.
<b>UP</b> (= <b>UP</b> ) Up key	(1) In Function index, press <b>UP</b> to go back to previous function index	(2) In setting status for function, press <b>UP</b> to select function. (3) During number setting, press <b>UP</b> can roll the digit up.
<b>DOWN</b> (= <b>DOWN</b> ) Down key	(1) In function Index page, press <b>DOWN</b> will go to the next function index page	(2) In setting status for function, press <b>DOWN</b> to select fnction (3) During number setting, press <b>DOWN</b> can roll the digit down

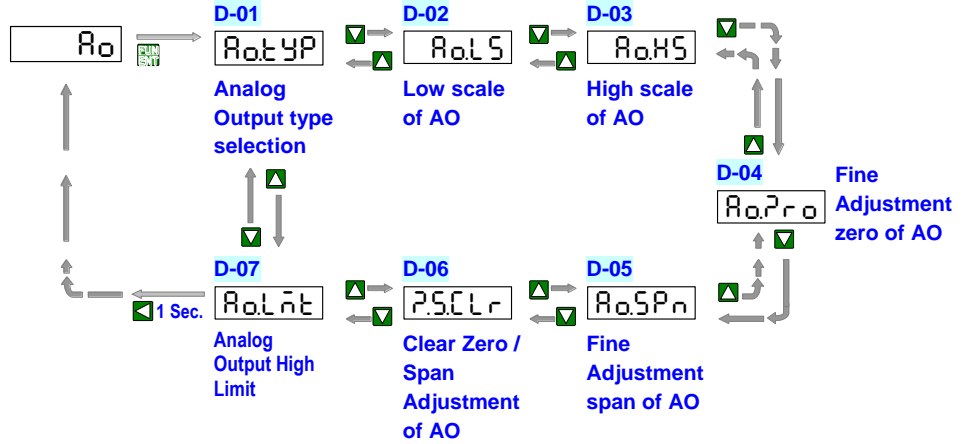
**Operating Diagram: (The detail description of operation, please refer to operating manual.)**



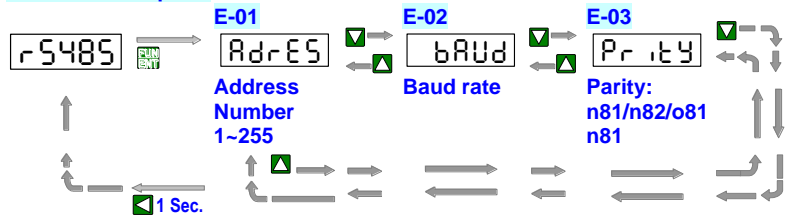
### B. Relay Group



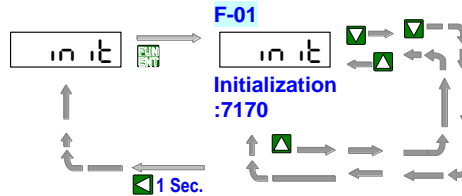
### D. Analog Output Group



### E. RS485 Group



### F. INIT Group



**Address Table Address \*\*Address number are Hexadecimal**

**User Level**

Name	Address	Range	Explain	Initial	Write/Read
PV	0000h	-1999~9999	Present Value		R
MIN	0001h	-1999~9999	The Minimum of PV		R
MAX	0002h	-1999~9999	The Maximum of PV		R
M.RST	0003h	0~1	Max & Min of PV Clear 0: No 1: Yes	0	R/W

**Engineer Level**

【 Input Group 】					
Name	Address	Range	Explain	Initial	Write/Read
UNIT	0004h	0~1	0:°C 1:°F	0	R/W
PV.DP	0005h	1	PV Decimal Point 1:0.0	1	R
LO.SC	0006h	-1999	Low Scale	-1999	R
HI.SC	0007h	8000	High Scale	8000	R
AVG	0008h	1~99	Average	5	R/W
M.AVG	0009h	1~99	Moving Average	1	R/W
D.FILT	000Ah	1~99	Digital Filter	1	R/W
P.CODE	000Bh	0000~9999	Pass Code	1000	R/W
【 Relay Group 】					
Name	Address	Range	Explain	Initial	Write/Read
RY.SB	000Ch	0~9999	Start band for Relay action	0	R/W
RY.SD	000Dh	0~5999 (x0.1S)	Start delay time for Relay action	0	R/W
RY1.SP	000Eh	-1999~9999	Relay 1 Set-point	100	R/W
RY1.MD	000Fh	0~4	Relay 1 action mode 0: Off 1: Lo 2: Hi 3: Lo.HLD 4: Hi.HLD	2	R/W
RY1.Status	0010h	0~1	Relay 1 Status 0: Off 1: On	0	R
RY1.HY	0011h	0~5000	Relay 1 Hysteresis	0	R/W
RY1.RD	0012h	0~5999 (x0.1S)	Relay 1 delay on time	0	R/W
RY1.FD	0013h	0~5999 (x0.1S)	Relay 1 delay off time	0	R/W
RY2.SP	0014h	-1999~9999	Relay 2 Set-point	100	R/W
RY2.MD	0015h	0~4	Relay 2 action mode 0: Off 1: Lo 2: Hi 3: Lo.HLD 4: Hi.HLD	1	R/W
RY2.Status	0016h	0~1	Relay 2 Status 0: Off 1: On	0	R
RY2.HY	0017h	0~5000	Relay 2 Hysteresis	0	R/W
RY2.RD	0018h	0~5999 (x0.1S)	Relay 2 delay on time	0	R/W
RY2.FD	0019h	0~5999 (x0.1S)	Relay 2 delay off time	0	R/W
【 RS485 Group 】					
Name	Address	Range	Explain	Initial	Write/Read
ADRES	001Ah	1~255	RS485 address	1	R/W
BAUD	001Bh	0~5	RS485 baud rate 0:1200 1:2400 2:4800 3:9600 4:19200 5:38400	3	R/W
PRITY	001Ch	0~3	RS485 parity check 0: N.8.1 1: N.8.2 2: O.8.1 3: E.8.1	1	R/W
【 INIT Group 】					
Name	Address	Range	Explain	Initial	Write/Read
INIT	001Dh	0000~9999	Initialization	7170	R/W