Brief Introduction of CKT1000/CKT700/CKT9000 Multiplex Data Recorder

Detailed information about CKT1000/CKT700/CKT9000　Multiplex Data Recorder：

- Single machine has a maximum of 64CH
- Embeddable Installation
- Built-in memory is 70MB
- Communication interface：RS485, 232，Ethernet, WiFi or GPRS
- Communication interface of WiFi and GPRS is accessible to Internet of Things Cloud Platform free, which can realize IE Remote Monitoring
- Input voltage: AC 90-250V or DC24V
- Touch-controlled color display screen of 7 inch
- USB interface contributes to data export easily
- Embedded installation hole；278*278, which is convenient to cabinet installation
- Fully isolated universal input and multiple signal acquisition

1. The data recorder is connected with thermal resistance PT100 or thermocouple to measure temperature in industrial field.

2. The data recorder is connected with the temperature and humidity sensor to measure ambient temperature and humidity in industrial field.

3. The data recorder is connected with the level transmitter to measure the level of the water tank.

4. The data recorder is connected with a pressure transmitter to measure field pipeline pressure

5. The data recorder is connected with the flow transmitter to measure the flow of the on-site pipeline.

6. The data recorder is connected with the gravity pressure sensor to measure the force between the objects.

7. The data recorder is connected with the voltage current electricity sensor to measure voltage and current power in industrial field.

8. NTC temperature sensor, 3600, 3950, 3425, 3455, 3435 and other specifications can be customized.

Multi-type module combination can achieve a variety of functions

Module name	Model number	Function description	Parameter
Universal signal input module	1708P	temperature K,T,J,E,S,B,R,N,WRe3,WRe5；RTD PT100、PT1000 platinum resistor, DC voltage 0~5V，0~10V，±100mV，±20mV，DC electric current 4~20mA	8-channel signal input
Fast acquisition module 0.1S	1708Q	temperature K,T,J,E,S,B,R,N,WRe3,WRe5 thermocouple ,DC voltage 0~5V，0~10V，±100mV，±20mV，DC electric current 4~20mA，(8 channels only for simultaneous use of the same type)	8-channel signal input
Relay alarm output module	1708J	Eight normally open relay contacts are used for output. Each contact can be matched with any channel. The maximum current 2A	8-channel contact output
Temperature and humidity acquisition module	1728	Accessible to four 2305 temperature and humidity probes or eight 2305 single humidity Probes，accuracy ±3%；Accessible to eight DS18B20 temperature sensor （- 20℃ ~ 125℃，	8-channel signal input

		accuracy±0.3℃）（please declare in order）	
Switch input module	1708k	8-channel switch signal input module	8-channel signal input
DC current acquisition module	1748	Maximum DC current 0~10A acquisition support（current range can be customized），accuracy 0.5%，resolution1mA	8-channel signal input
DC voltage acquisition module	1758	Maximum DC voltage 0~120V acquisition support ，accuracy0.5%，resolution1mV	8-channel signal input
AC power and electrical parameters test module	*1706AC	Single-phase AC power and energy parameter test card can be shared with other modules such as temperature in a recorder host.	current, voltage, power, frequency, electric energy
AC/DC power and electrical parameters test module	1706ADC	Voltage range：5~600V，electric current：10mA~20A, frequency：45~400Hz	AC/DC current, voltage, power, frequency, electric energy
DC voltage 5V output module	1778	Power supply for 5V-powered sensor or transmitter	8-channel output
DC voltage 24V output module	1788	Power supply for 24V-powered sensor or transmitter（Used when AC power is supplied）	8-channel output
Battery module for recorder	1701	One battery module can be used for a 8-channel recorder to work continuously for 10 hours. High-capacity polymer lithium battery pack with 12V and 4000mAH. Multiple battery modules can be plugged in to achieve longer delay test usage.	DC12.6V output
NTC temperature sensor acquisition module	1708NTC	Accessible to 8-channel or 16-chann NTC temperature sensor various specifications: 3600.3950,3425,3455,3435 etc. Accept customization	8-channel or 16-channel（customized ）

Functions and Explanations of Various Module Types
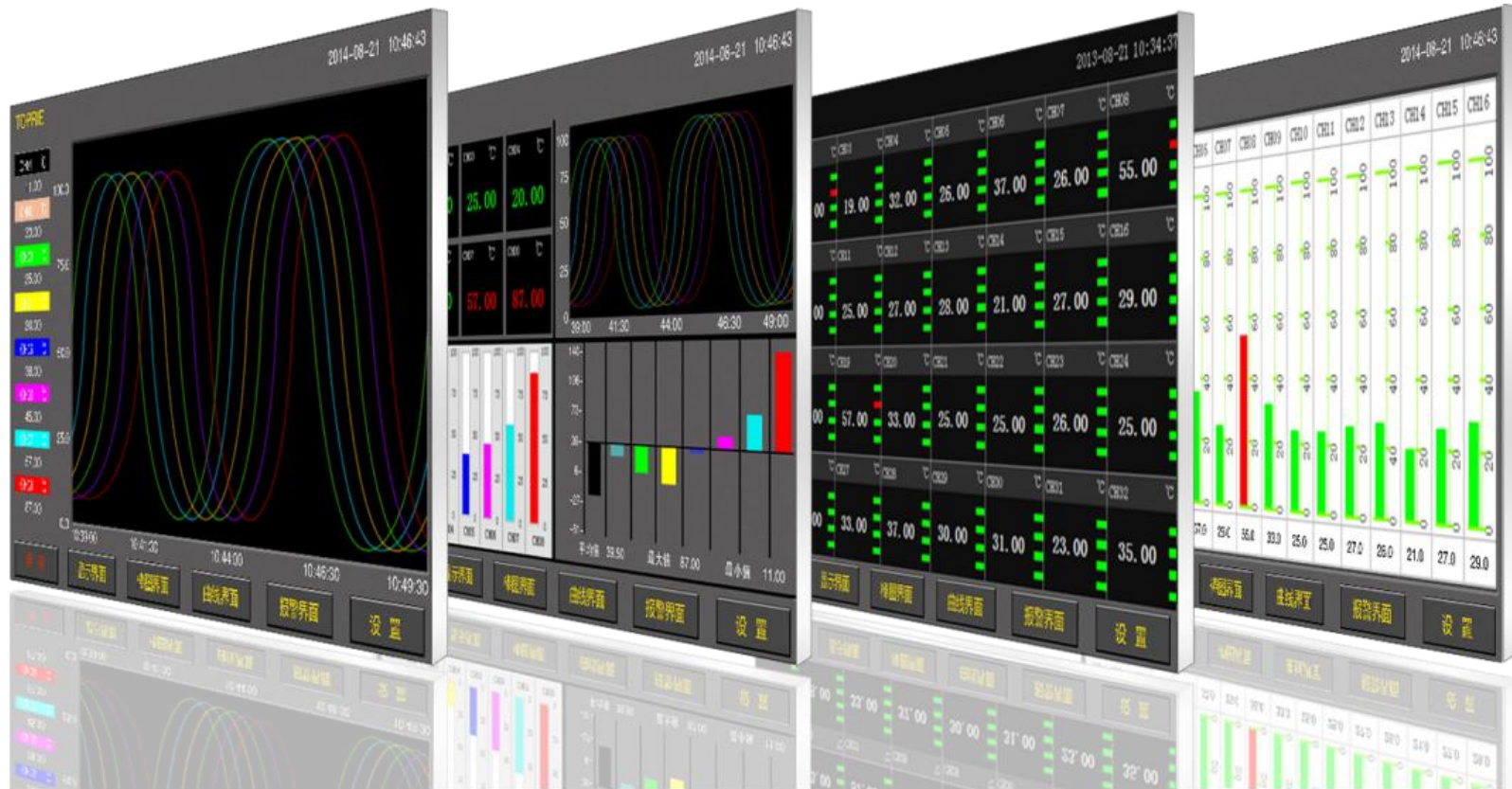
Technical specification of CKT700 multiplex data recorder:

AC power supply	85VAC~265VAC
DC power supply	24VDC ±10%
Power dissipation	≦25VA（The actual power consumption is related to the number of input channels of the instrument）
Channel number	1-16 channel
Input signal	Thermocouple K , E , R , B , N ,T , E , J , S , WRE5-26 , WRE3-25
	thermal resistance PT100, PT1000
	Current 4-20mA,0-20mA
	Voltage 0-5V,0-10V
Sampling frequency	1-19999s autonomous setting
Recording capacity （64M as the benchmark ）	20 days（16 channels，recording interval in one second）
	1200days（16 channels，recording interval in one minute）
Recording mode	Circular record
Alarm type	High and low limit alarm，four per channel（above the upper limit，upper limit, lower limit，below the lower limit）
Relay	8-channel and 16-channel Frequently Switched Relays 220VAC/3A（selection）
Power distribution	1 channel 24V DC power distribution （Optional multi-channel distribution and 5VDC distribution）
Communication	Standard RS232C（Optional RS485，USB communication, ethernet and GPRS wireless communication, etc.）
	Standard ModBus RTU communication protocol
Operating ambient temperature	-20℃~50℃
Operating ambient Temperature	Lower than 85%R.H（non condensing ）
Storage ambient temperature	0℃~50℃
Storage ambient temperature	Lower than 95%R.H（non condensing ）
Body material	ABS
Outline size	288*288*200mm
Installation opening size	278*278mm +1mm

CKT1708P Technical specification of sampling module

Input mode	Input type	Measuring range	accuracy
Thermal resistance	Pt100	-200~600℃	±(0.05% rdg. +0.3℃)
	Cu50	-50.0 ~ 150.0℃	±(0.05% rdg. +0.3℃)
Thermocouple	S	500~ 1750℃	≧800℃ ±(0.05% rdg. +1.0℃)；≤800℃±(0.2% rdg. +2.0℃)
	R	500 ~1750℃	≧800℃ ±(0.05% rdg. +1.0℃)；≤800℃±(0.2% rdg. +2.0℃)
	B	500 ~ 1800℃	≧800℃ ±(0.05% rdg. +1.0℃)；≤800℃±(0.2% rdg. +2.0℃)
	K	-50.0 ~ 1370℃	±(0.05% rdg. +0.5℃)
	N	0 ~ 1300℃	±(0.05% rdg. +0.7℃)≤0℃ ±(0.3%rdg.+0.7℃)
	E	0 ~1300℃	±(0.05% rdg. +0.5℃)≤0℃ ±(0.15%rdg.+0.5℃)
	J	0 ~ 760℃	±(0.05% rdg. +0.5℃)≤0℃ ±(0.15%rdg.+0.5℃)
	T	-100~400℃	±(0.05% rdg. +0.5℃)≤-30℃ ±(0.15%rdg.+0.5℃)
	WRE5-26	0~2300℃	≧1500℃±(0.05% rdg. +1.5℃)≤1500℃±(0.05% rdg. +1.0℃)
	WRE3-25	0~2300℃	≧1500℃±(0.05% rdg. +1.5℃)≤1500℃±(0.05% rdg. +1.0℃)
Voltage	0-10V	0.000V ~ +11.000V	0.01% F.S. ±0.0001V
	0-5V	0.000V ~ +5.500V	0.02% F.S. ±0.0001V
	0-1V	0.000V ~ +1.1000V	0.05% F.S. ±0.01mV
	±100mV	-110.00mV ~ +110.00mV	0.0025% F.S. ±0.001mV
	1-5V	0.800V ~ +5.200V	0.02% F.S. ±0.0001V
Electric current	4-20mA	0.38mA ~ +21.00mA	0.005% F.S. ±0.001mA
	0-20mA	0.00mA ~ 20.00mA	0.005% F.S. ±0.001mA

Selection table

Model	Function	Specification	Illustration	
CKT700-8			signal input 8 channels	
CKT700-16			signal input 16 channels	
Additional specifications	alarm contact	/J	8	8-channel relay output interface; support for regular opening and closing
			.....	Output does not exceed 32
	switching value input	/K	8	8-channel switching input
			.....	input does not exceed 32
	analog value output	/A	2	2-channel 4-20mA analog value output
			.....	output does not exceed32
	computing function	/C	1	cumulative calculation of liquid flow
			2	cumulative calculation of gas flow （temperature and pressure compensation）
	storage	/S	1	70M storage
			2	2G storage
			3	4G storage
	printing	/W	1	Micro printer *1
	alarm system	/B	2	Acousto-optic alarm *1
	communication	/T	1	RS232C communication
			2	USB communication
			3	RS485 communication

Dimensions of **CKT700** Multiplex Data Recorder and Installation Opening Dimensions (unit mm)