

PZX-2000/192E

Intelligent Central Signal Screen



June 2023

CATALOGUE

- 1, Certificate of Conformity
2. Debugging Outline (Factory Inspection Report)
- 3, PZX-2000/192E signal screen principle wiring diagram.
- 4, CAKJ-XHB-192LE Central Signal Alarm Device Data

Special Note: Please read the signal alarm device materials carefully before using this product.

Certificate of Conformity

Product Model: PZX-2000/192E

Product Name: Central Signal Screen

Signal capacity: 192 routes

Apparatus power: AC/DC220V

Lighting power supply: AC220V

Inspection Date: June 10, 2023

Inspector: 01

Inspection basis: "State Grid Q/GDW430-2010 Technical Specification for Intelligent Control Cabinet of Smart Substation", "Signal Alarm and Interlocking System Design Specification HG/T20511-2014", product manual.

Inspection result: qualified.

Manufacturer: Xuchang Chang'an Technology Co., Ltd.

2023/06/12

PZX-2000/192LT-FB Central Signal System

Factory Inspection Report

1. Appearance and integrity inspection

No.	Inspection items	Technical requirements	Inspect results	
			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1	Device model	PZX-2000/192E No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
2	Device dimension	Height x wide x thick 2160x800x600mm	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
3	Device door	Front glass right handed door, rear double doors	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
4	Device color	RAL7035	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5	Power supply	AC,DC220V	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
6	Lighting power	AC220V	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
7	Signal routes	192 routes	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8	External input signal	Dry contact	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
9	Alarm device	CAKJ-XXS-MZQ 1 set	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
10	Alarm window case	CAKJ-XXS-64GP 3 sets	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
11	Functional buttons	Test(red), Confirm(blue), Silence(white), Reset(green), Recall(yellow)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
12	Signal input model	CAKJ-32DIT 6 sets	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
13	Power model	CAKJ-KDY-24 2sets	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
14	Alarm window color	White when not alarm, red when alarm	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
15	Alarm window statement	Blank when not provide	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
16	Terminal strip	UK5N (345)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
17	In-screen lighting	8W ESL	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
18	Wiring	32 core RV copper soft 1 square, several m	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
19	Cable tray	Configuration	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
20	Power switch	2Pswitch AC, DC6A 1 piece	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
21	Signs and identifications	No damage to components inside the screen, wire number, marker seat, terminal number.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
22	Total power consumption	No greater than 100W	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
23	Appearance inspection	Appearance is clean without any bumps or scratches	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

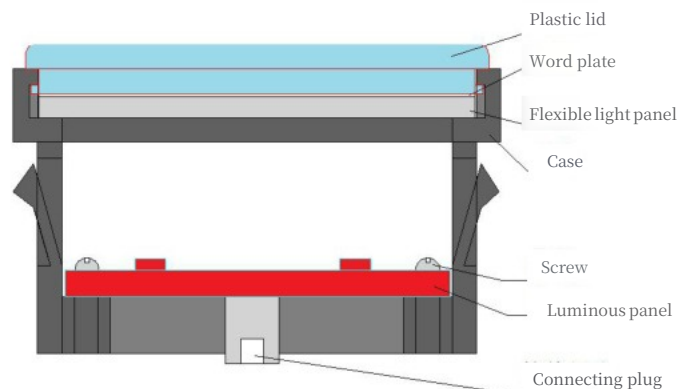
Alarm window Structure

Remove plastic lip to place word plate.

Word plate size: 26.5*26.5mm.

Word plate material: A4 tracing paper or printe paper.

Users can place or replace the illuminated word plates on site to display the name.



2, Device Function Inspections

No.	Inspection items	Technical requirements	Inspect results	
1	Power-on self-test	Power on, LCD screen shows self-testing, when finish display normal and clock.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
2	Testing button	Press "test" button, alarm windows flashing, electric whistle and bell rings. Release test button, alarm windows off, electric whistle and bell silence.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
3	Signal input 1	Dry contact signal input between 1DX:1to 1DX:65 of signal panel (short circuit), 1GP alarm window flashing, audio contacts drive electric bell or whistle sound. Note: electric whistle sounds if 01 set as alarm signal, electric bell sounds if 01 set as warning signal.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
4	Silence button	Press silence button, audio contact return, whistle or bell silence, alarm window remains flashing.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5	Confirm button	Press confirm button, alarm window turn to blank from flashing, audio contact return. Without press confirm button, auto confirm in 30s(30s can be set)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
6	Signal reset	According to setting, when alarm signal set as remain signal, after signal returns, alarm states remain, returns when press reset button. With switch-type instantaneous alarm signal, after signal return alarm device will return to original monitoring states automatically.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
7	Signal input n	02-n route signal input, to check 02-n route signal input separately, repeat step 3-6, meet the requirement. Note: according to alarm routes, inspect every input route.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8	Signal recall	Long press recall button, recall alarmed signals in sequence as last-in first-out principle, alarmed signals flash in order, 2s gaps, during the recall progress new alarm signal will be in priority.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
9	Power vanish	When device power supply vanish or inside failure occurs, output 1 pair contacts	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
10	Data communication	Device use RS485serial communication, <u>MODBUS-RTU v3.4</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
11	Production setting	According to production setting form, inspect every function, to satisfied design requirement.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
12	Alarm records	To record every alarm signal occur and return time, maximum 100 records.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

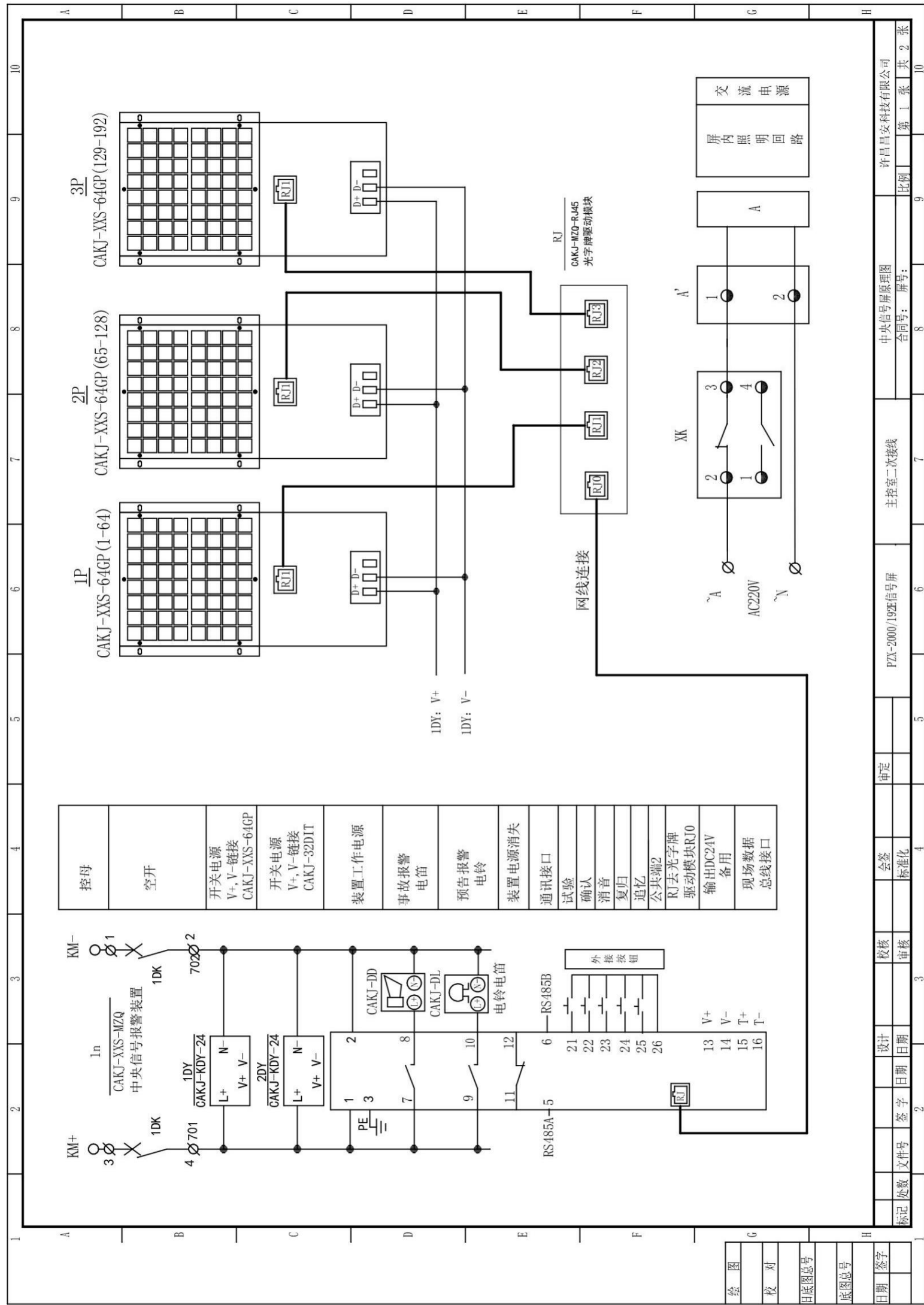
3, Safety function inspection

No.	Inspection items	Technical requirements	Inspect results	
1	Insulation resistance	No less than 100M Ω between input-output-power-case	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
2	Power frequency withstand voltage	With stand 2kv, 1min, 5mA, 50/60HZ inspection in between input - output -power-case, with no flash-over or breakdown.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

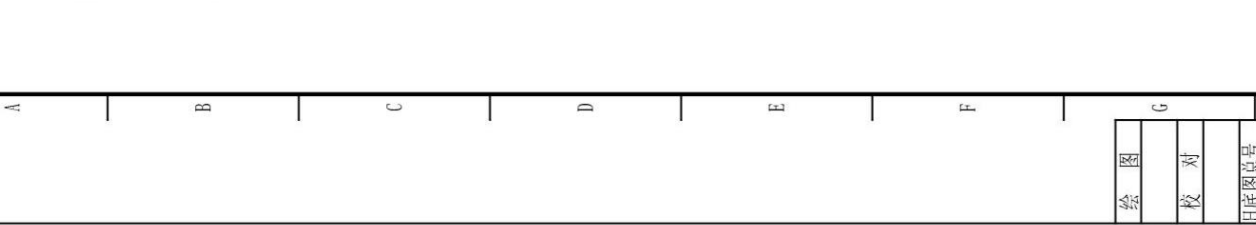
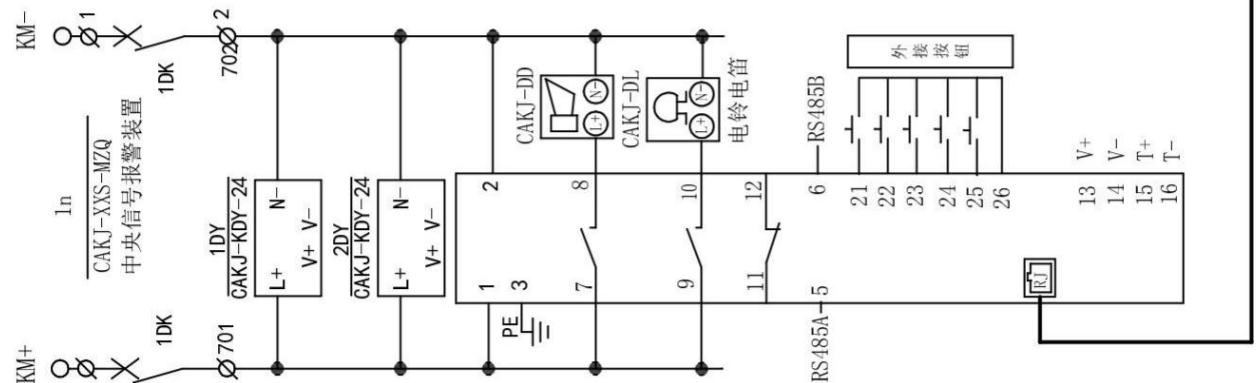
4. Conclusion

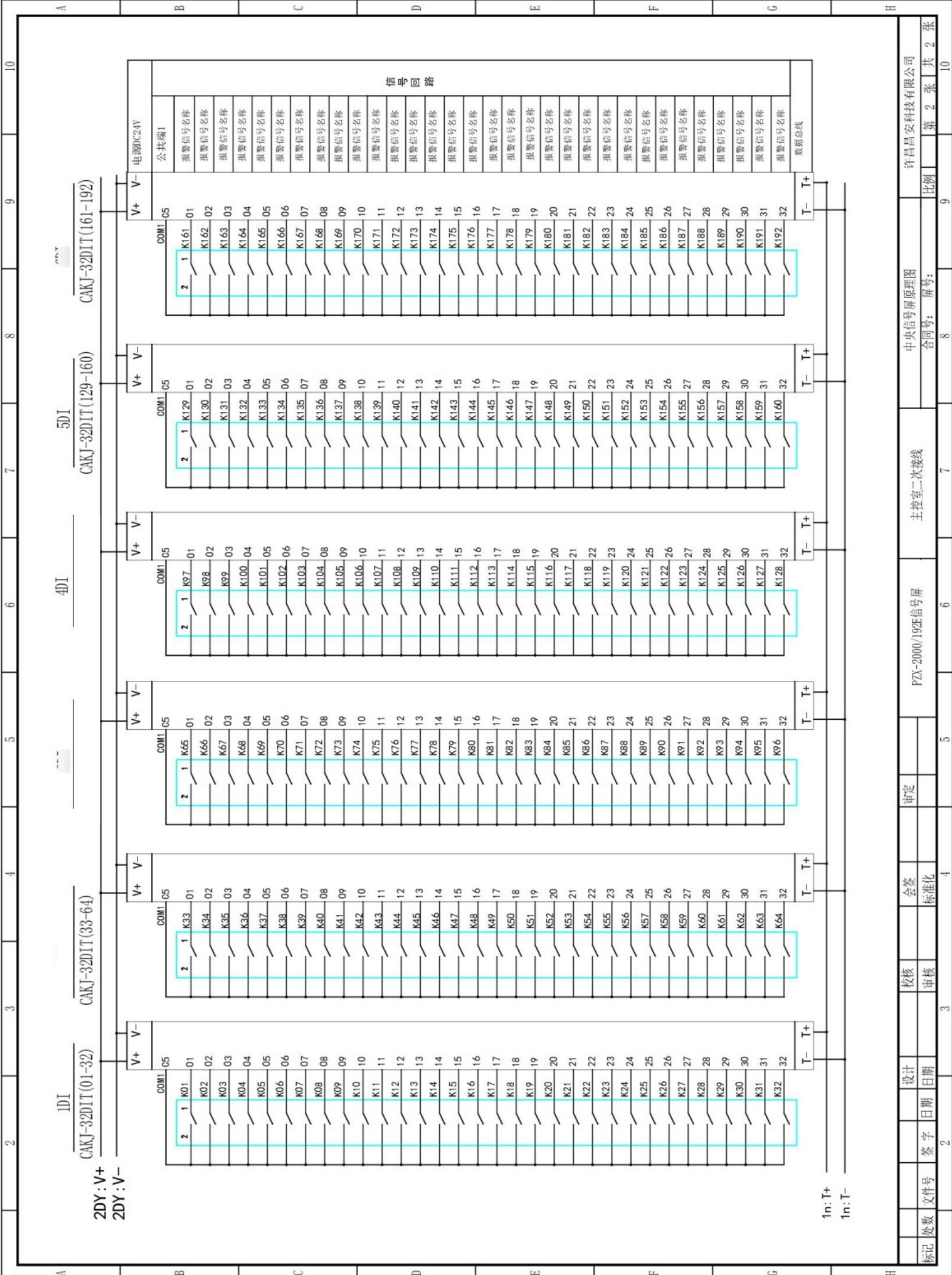
According to the national standard, product technical instructions, user requirements and wiring diagram, the overall inspection is carried out. After inspection, it meets all the requirements and is allowed to leave the factory.

Inspector: 01 02 Inspection result: qualified unqualified Inspection date: 2023/6/12



控母
空开
开关电源 V+, V- 链接 CAKJ-XXS-64GP
开关电源 V+, V- 链接 CAKJ-32DIT
装置工作电源
事故报警 电铃
预告报警 电铃
装置电源消失
通讯接口
试验
确认
消音
复归
追忆
公共端2
RJ去光字牌 驱动模块RJ0
输出HDC24V 备用
现场数据 总线接口





绘图	校对	日底图总号	底图总号	日期	签字	文件号	签字	日期	设计	日期	审核	日期	会签	日期	核定	日期	主控室二次接线	PZX-2000/192E信号屏	中央信号屏原理图	合同号: 屏号:	比例	第 2 张	共 2 张
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AC/DC220V
装置电源

AC220V
照明电源

1DD 供电电源Power supply			
电源POWER L+	1	701	1DK-1
	2		
电源POWER N-	3	702	1DK-3
	4		
1DK-2	5		1n-1
1DY-L+	6		1n-7
2DY-L+	7		1n-9
	8		
	9		
1DK-4	10		1n-2
1DY-N-	11		3n-N-
2DY-N-	12		2n-N-
	13		
	14		
PE	15		1n-3
照明电源 L	16		XK-2
AC220V N	17		A'-2
	18		
1DY-V+	19		1P-D+
	20		2P-D+
	21		3P-D+
1DY-V-	22		1P-D-
	23		2P-D-
	24		3P-D-
2DY-V+	25		1DI-V+
5DI-V+	26		2DI-V+
6DI-V+	27		3DI-V+
	28		4DI-V+
2DY-V-	29		1DI-V-
5DI-V-	30		2DI-V-
6DI-V-	31		3DI-V-
	32		4DI-V-
电源消失	33		1n-11
	34		1n-12
RS485通讯	35	485A	1n-5
	36	485B	1n-6
1n-15	37	T+	1DI-T+
5DI-T+	38		2DI-T+
6DI-T+	39		3DI-T+
	40		4DI-T+
1n-16	41	T-	1DI-T-
5DI-T-	42		2DI-T-
6DI-T-	43		3DI-T-
	44		4DI-T-
	45		

1-64路信号输入端 (无源干接点)

1-64路信号输入公共端 (无源干接点)

端子接线图

1DX 信号接入端子K01-K64: 1			
1	K01	1DI-01	
2	K02	1DI-02	
3	K03	1DI-03	
4	K04	1DI-04	
5	K05	1DI-05	
6	K06	1DI-06	
7	K07	1DI-07	
8	K08	1DI-08	
9	K09	1DI-09	
10	K10	1DI-10	
11	K11	1DI-11	
12	K12	1DI-12	
13	K13	1DI-13	
14	K14	1DI-14	
15	K15	1DI-15	
16	K16	1DI-16	
17	K17	1DI-17	
18	K18	1DI-18	
19	K19	1DI-19	
20	K20	1DI-20	
21	K21	1DI-21	
22	K22	1DI-22	
23	K23	1DI-23	
24	K24	1DI-24	
25	K25	1DI-25	
26	K26	1DI-26	
27	K27	1DI-27	
28	K28	1DI-28	
29	K29	1DI-29	
30	K30	1DI-30	
31	K31	1DI-31	
32	K32	1DI-32	
33	K33	2DI-01	
34	K34	2DI-02	
35	K35	2DI-03	
36	K36	2DI-04	
37	K37	2DI-05	
38	K38	2DI-06	
39	K39	2DI-07	
40	K40	2DI-08	
41	K41	2DI-09	
42	K42	2DI-10	
43	K43	2DI-11	
44	K44	2DI-12	
45	K45	2DI-13	
46	K46	2DI-14	
47	K47	2DI-15	
48	K48	2DI-16	
49	K49	2DI-17	
50	K50	2DI-18	
51	K51	2DI-19	
52	K52	2DI-20	
53	K53	2DI-21	
54	K54	2DI-22	
55	K55	2DI-23	
56	K56	2DI-24	
57	K57	2DI-25	
58	K58	2DI-26	
59	K59	2DI-27	
60	K60	2DI-28	
61	K61	2DI-29	
62	K62	2DI-30	
63	K63	2DI-31	
64	K64	2DI-32	
65	COM	1DI-C5	
66		2DI-C5	
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65-128路信号输入端 (无源干接点)

65-128路信号输入公共端 (无源干接点)

2DX 信号输入端子K65-K128			
1	K65	3DI-01	
2	K66	3DI-02	
3	K67	3DI-03	
4	K68	3DI-04	
5	K69	3DI-05	
6	K70	3DI-06	
7	K71	3DI-07	
8	K72	3DI-08	
9	K73	3DI-09	
10	K74	3DI-10	
11	K75	3DI-11	
12	K76	3DI-12	
13	K77	3DI-13	
14	K78	3DI-14	
15	K79	3DI-15	
16	K80	3DI-16	
17	K81	3DI-17	
18	K82	3DI-18	
19	K83	3DI-19	
20	K84	3DI-20	
21	K85	3DI-21	
22	K86	3DI-22	
23	K87	3DI-23	
24	K88	3DI-24	
25	K89	3DI-25	
26	K90	3DI-26	
27	K91	3DI-27	
28	K92	3DI-28	
29	K93	3DI-29	
30	K94	3DI-30	
31	K95	3DI-31	
32	K96	3DI-32	
33	K97	4DI-01	
34	K98	4DI-02	
35	K99	4DI-03	
36	K100	4DI-04	
37	K101	4DI-05	
38	K102	4DI-06	
39	K103	4DI-07	
40	K104	4DI-08	
41	K105	4DI-09	
42	K106	4DI-10	
43	K107	4DI-11	
44	K108	4DI-12	
45	K109	4DI-13	
46	K110	4DI-14	
47	K111	4DI-15	
48	K112	4DI-16	
49	K113	4DI-17	
50	K114	4DI-18	
51	K115	4DI-19	
52	K116	4DI-20	
53	K117	4DI-21	
54	K118	4DI-22	
55	K119	4DI-23	
56	K120	4DI-24	
57	K121	4DI-25	
58	K122	4DI-26	
59	K123	4DI-27	
60	K124	4DI-28	
61	K125	4DI-29	
62	K126	4DI-30	
63	K127	4DI-31	
64	K128	4DI-32	
65	COM	3DI-C5	
66		4DI-C5	
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129-192路信号输入端 (无源干接点)

129-192路信号输入公共端 (无源干接点)

3DX 信号接入端子K129-K192			
1	K129	5DI-01	
2	K130	5DI-02	
3	K131	5DI-03	
4	K132	5DI-04	
5	K133	5DI-05	
6	K134	5DI-06	
7	K135	5DI-07	
8	K136	5DI-08	
9	K137	5DI-09	
10	K138	5DI-10	
11	K139	5DI-11	
12	K140	5DI-12	
13	K141	5DI-13	
14	K142	5DI-14	
15	K143	5DI-15	
16	K144	5DI-16	
17	K145	5DI-17	
18	K146	5DI-18	
19	K147	5DI-19	
20	K148	5DI-20	
21	K149	5DI-21	
22	K150	5DI-22	
23	K151	5DI-23	
24	K152	5DI-24	
25	K153	5DI-25	
26	K154	5DI-26	
27	K155	5DI-27	
28	K156	5DI-28	
29	K157	5DI-29	
30	K158	5DI-30	
31	K159	5DI-31	
32	K160	5DI-32	
33	K161	6DI-01	
34	K162	6DI-02	
35	K163	6DI-03	
36	K164	6DI-04	
37	K165	6DI-05	
38	K166	6DI-06	
39	K167	6DI-07	
40	K168	6DI-08	
41	K169	6DI-09	
42	K170	6DI-10	
43	K171	6DI-11	
44	K172	6DI-12	
45	K173	6DI-13	
46	K174	6DI-14	
47	K175	6DI-15	
48	K176	6DI-16	
49	K177	6DI-17	
50	K178	6DI-18	
51	K179	6DI-19	
52	K180	6DI-20	
53	K181	6DI-21	
54	K182	6DI-22	
55	K183	6DI-23	
56	K184	6DI-24	
57	K185	6DI-25	
58	K186	6DI-26	
59	K187	6DI-27	
60	K188	6DI-28	
61	K189	6DI-29	
62	K190	6DI-30	
63	K191	6DI-31	
64	K192	6DI-32	
65	COM	5DI-C5	
66		6DI-C5	
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CAKJ-XXS-288E Central Signal Alarm System

1 Overview

CAKJ-XXS-288E Central Signal Alarm System, a centralized management microcomputer signal alarm system designed specifically for the signal system of power plants and substations. It has the characteristics of strong anti-interference ability, simple operation, convenient installation and use, and low maintenance. This alarm system adopts a distributed structure. The "alarm host" collects alarm data from the "open-in module" through the field bus, and transmits the obtained alarm signal to the alarm "alarm window box" and "alarm sound" according to the internal setting instructions of the host, completing the sound and light alarm of the fault signal. This product is widely used in power, petroleum, chemical, metallurgical, and coal industries, and is a highly intelligent product for power and industrial automatic monitoring and signal alarm.

Light Word Plate Box Host Open-in Module Drive Module

2, Model Number

CAKJ-XXS-288E Central Signal Alarm System

(including the following components)

CAKJ-XXS-MZQ Central Signal Alarm Device(Host)

1 set

CAK J-32DIT 32-channel signal open-in module

9 sets

CAKJ-XXS-64GP 64-channel light word plate box

4 sets

CAKJ-XXS-32GP 32-channel light word plate box

1 set

CAKJ-MZQ-RJ45 Light Word Plate Drive Module

1 set

CAKJ-KDY-24 Switching Power Supply

2 pieces

CAKJ-DL Electronic Bell

1 piece

CAKJ-DD Electronic Whistle

1 piece

LA38-11φ22 Function Button

(Red Blue Yellow Green White) each 1 piece



3. Functional Features

- The alarm host panel is equipped with a liquid crystal display: displays the operating clock, open-in module abnormality, signal alarm records, etc., and has the function of self-checking after power-on.
- Function Button: It has the functions of test (test light), confirmation (accept, mute, reset, recall, etc.) external function button terminal.
- Fault recording function: Record the time of occurrence of alarm signal fault (year, month, day, hour, minute, second), record the time of alarm signal fault removal (year, month, day, hour, minute, second).
- It has the function of manual and automatic confirmation, and the automatic confirmation time (0-200s) can be set.
- Signal delay alarm: 0-9999ms delay alarm time can be set.
- Signal alarm type can be distinguished: can set to distinguish between accident signal F, warning signal W, position signal L.
- Light word plate color: You can choose red, yellow-green, and distinguish more clearly and intuitively by color according to the alarm type of the signal.
- Input signal type can be set: switch type contact (K), switch type hold contact (E), and pulse type hold contact (P). (Note)
- Input signal normally open normally closed selection: For each signal, normally open change normally closed alarm (O default) can be set, normally closed change normally open alarm (C) can be set.
- You can arbitrarily mask or start the input signal alarm.
- The device is equipped with a buzzer, and the accident sends a long sound "Di---", the warning signal sends a short sound "Di, Di, Di, Di", and the position signal does not sound.
- The device is equipped with accident and warning signal alarm output contacts, which can start the electric whistle and bell, and strengthen the sound alarm effect.
- It has a device power disappearance contact output.
- It has digital communication output, RS485 serial communication interface, MODBUS communication protocol.

Note: Switch type contact K: the normally-open contact, when the system malfunctioning, the contact will close, the device alarms, when the fault is clear, the contact will disconnect, the alarm will be reset.

Switch type maintain contact E: when the system malfunctioning, the contact will close, the device alarms, when the fault is clear, the contact will be disconnected, the alarm signal will be maintained hold, require manual reset.

Pulse-type hold contact P: Pulse-type normally closed contact, which will close for 1s and then open while the system malfunction occurs, and the alarm remains when the fault removed, require manual reset.

4. General Technical Requirements

- Working Power Supply: DC220V, DC110V, DC125V, AC220V, AC240V (optional).
- Signal Capacity: 256 circuits (8 pieces of 32-circuit opening modules).
- Input Signal Mode: Normally open or normally closed passive dry contact.
- Alarm window: Illuminated window size 30x30, color: red, yellow, green, white (optional).
- Alarm Output: Alarm window flashing, buzzer or audio sound.
- Alarm Sound: Buzzer beep 60DB; amplified audio able to choose CAKJ-DL bell, CAKJ-DD whistle as optional.
- Contact Output: 3 relay contacts output, corresponding to power failure, warning alarm, and accident alarm respectively.
- Contact Capacity: AC250V, 3A pure resistive load, DC220V, 0.125A inductive load.
- Function Settings: click set button, LCD display.
- Power Consumption: less than 50W for the whole set.
- Communication Interface: Standard RS485 serial communication interface, MODBUS communication protocol.

- 12. Insulation resistance: No less than 100MΩ between input-output-power supply-case .
- 13. Rated Voltage Withstand Capacity: The input-output-power supply-case can withstand a test of 2 kv, 1min, 5mA, 50/60Hz without any flashover or breakdown.
- 14. Anti-interference Capacity: The product can withstand the high-frequency interference test of 1MHz and 100kHz attenuated shock waves. The voltage amplitude of the first half-wave is 2.5kV common mode and 1.0Kv differential mode. The product should not exhibit any misoperation or refusal operation phenomenon.
- 15. Environmental Conditions: Ambient temperature range between -10°C~60°C; ambient humidity not above 90%.
- 16. Weight: 5kg

5. Apparatus Set-up and Record Viewing

1. Instrument setting: There are 5 setting keys on the instrument panel, "SET" to set and confirm, "←" to move cursor left (left), "→" to move cursor right (right), "RETURN" to return to the previous menu when the cursor is not flashing, "↑" to add 1 (up), "↓" to subtract 1 (down), and "EXIT" (setting exit key, return to the running interface).

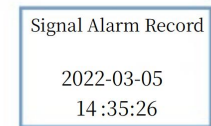
Press SET button into setting	Main menu	Move cursor to setting for detail setting, beware with clear records.				
Password Please enter passwords: 0000 Then press SET button	System setting →clock calibration Signal setting Communication setting	Clock calibration System time calibration Please enter date, time yyyy/mm/dd hr.min.sec	Clear records Clear records Please confirm No or Yes Then press SET button	Black light time LCD black light time selection Please select 10s, 30s, normally on Then press SET button		
Note: default password 8080	Clear records Backlight time Return Note: main menu need to turn the page to display.	Communication setting	Entering address, baud rate and verification methods selection.			
		Device address Baud rate Verification methods Return	Device address Please enter 001-255 Then press SET button	Device baud rate Please enter 9600 or 4800 Then press SET button	Verification methods Please enter Null, odd, even Then press SET button	
Signal setting	Signal total number enable to set, confirm time and delay needs entering, audio setting by selection.					
→total signal no. Auto confirm Delay setting Detailed setting	Total signal number Total signal number Please enter N route Then press SET button	Auto confirm Auto confirm time Please enter 10s, (0-200s) Then press SET button	Delay setting Delay alarm time Please enter 20ms(0-999ms) Then press SET button	Audio setting Audio setting Please select All on, off, buzzer only, electric speaker only Then press SET button		
Audio setting Return						
Detailed setting	The form listed below are the setting method and meaning					
Signal detailed setting Please enter 001route Then press SET button	Signal detailed setting N I S J B →1 K F O R 2 K F O R 3 P L C D · · · · ·	N routes →1 2 3	I enter status K switch contact(instant) E switch contact(maintain) P pulse contact(maintain)	S alarm type F Failure alarm W warning alarm L location alarm	J normally open/close O normally open contact C normally close contact	B on or off R signal on R signal on D signal off
Please enter specify route, press SET button move to the route need setting.	N-1 K W O R N K W O R	Setting method: press up and down to select route, press SET button, while cursor flashing, press Up and Down button select to enter, press Left and Right to move, set I, S, J, B in order. When setting finish, press SET again, cursor not flash, at this condition press Up and Down to select other route, press Right return to previous page, press SET to exit setting.				

2, Records View

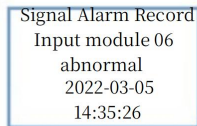
During normal operation, press the "↑" key or the "↓" key to enter the record review interface, Press "↑" or "↓" to scroll through records 1-200. Press the "←" key to exit record view.



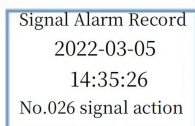
3. Alarm display



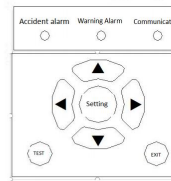
Normal Monitoring Interface,



Abnormal Input Module Interface,



Signal Loop Alarm Interface



When the accident signal alarming the accident indicator is on.
when the warning signal alarming the warning indicator is on.
when the external communication is connected the communication indicator is on.

Note: when the input module is abnormal, please check if the module address is set correctly and uniquely, whether the module power indicator is on, and whether T+ and T- are connected. When the input module is connected to the host, the power indicator is on, and the data transmission indicator of the input module is flashing, then press the "Exit" key on the panel to restore normal.

6. Apparatus Alarm and Inspection

1. Power on self-test, connect the device to the power supply, all the alarming windows are on and the LCD display panel shows "The system is self-checking, starting". The alarm windows off after the self-test is completed, and the LCD screen shows the date and clock.
2. Press the "Test" button, all the alarm windows flash, the buzzer sounds, and the audio output contacts act. Press the test button again to return to the monitoring state.
3. When a signal alarm occurs, the corresponding alarm window flashes, the buzzer sounds, the audio output contact acts, and the bell and whistle are sounding. The LCD display window shows the date and time as 20XX-XX-XX XX:XX:XX, signal number 0XX has been activated.
4. Press the "Silence" button, the alarm window continues to flash, the buzzer is silent, the audio output contact returns, and the bell and whistle are silent.

5. Press the "Confirm" button (or automatic confirm after 0-200s), the alarm window will chang from flashing to steady, the buzzer silence, the audio output contact will return, the electric bell and whistle will be silent, and the LCD will display the real-time clock.
6. When the signal is reset, the signal input by the switch contact goes out. The signal input by the holding contact remains in alarm and the signal light goes out only after manual reset (pressing the external "reset" button). The LCD display window shows "20XX year XX month XX day, XX hour XX min ute XX second, signal number 0XX returns".
7. Press and hold the "Recall" button, the signals that have been reported will be displayed on the alarm window in order of their reporting, following the principle of LIFO (Last In, First Out), up to 200 signals can be recalled, with alarm recall taking priority during the recall process.

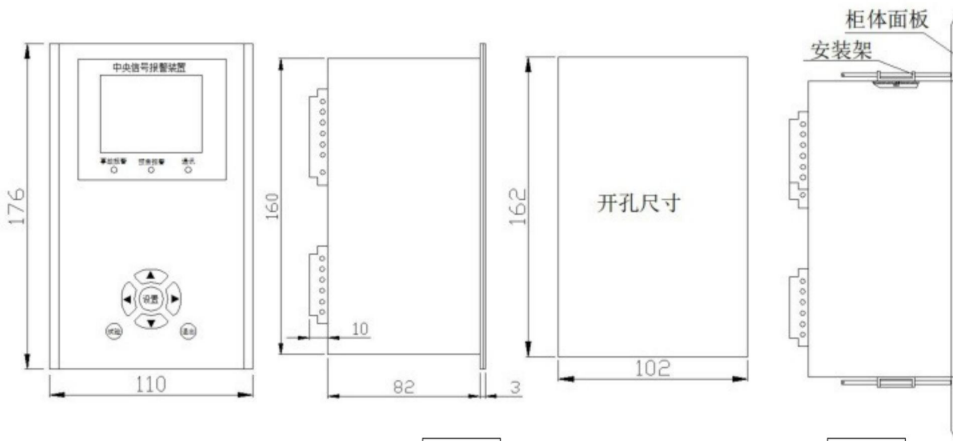
7. Appearance and wiring

1, CAKJ-XXS-MZQ

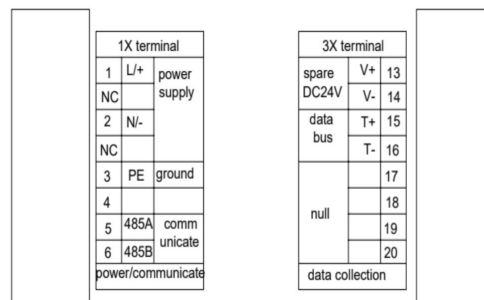
◆External view Host



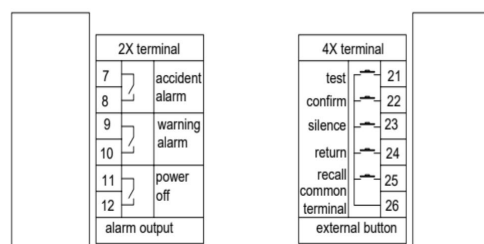
◆Dimensions and installation size



◆Terminal and position diagram (rear view)



to alarm window case RJ1

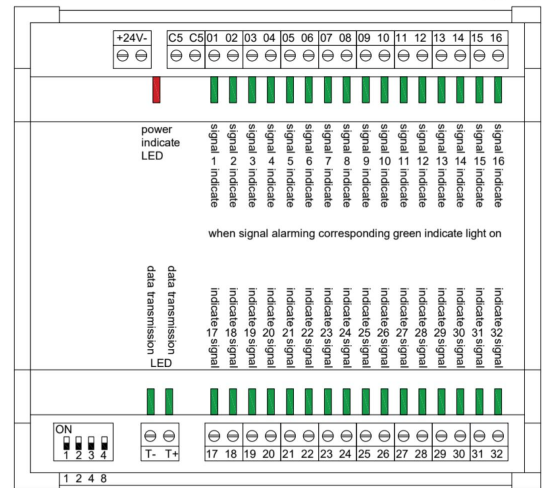
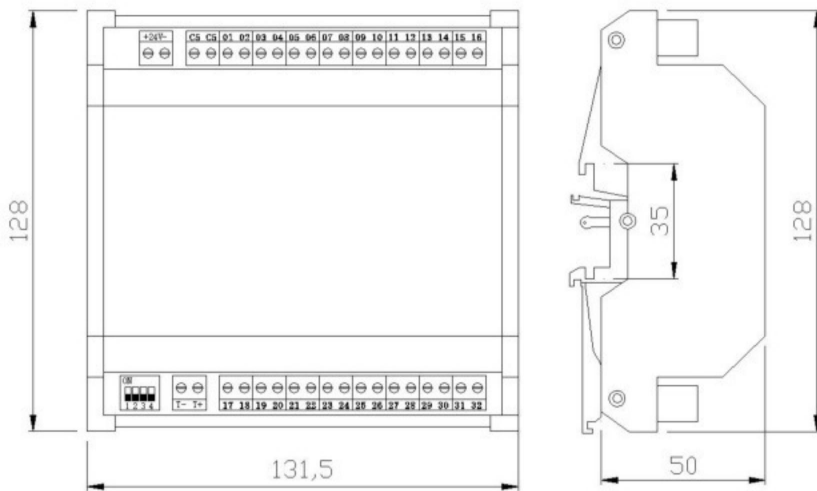


2, CAKJ-32DIT Input Module

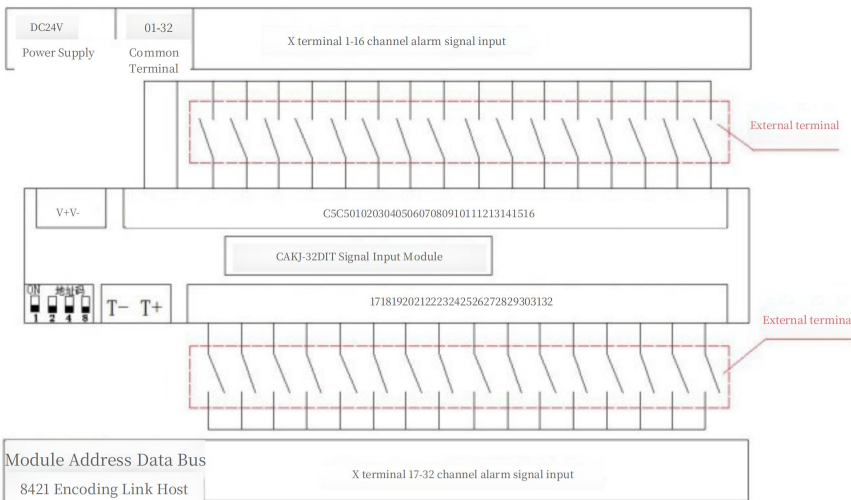
◆ External view Input Module



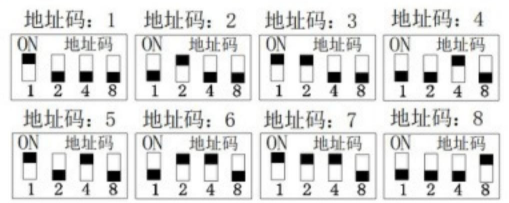
◆ Dimensions and installation size



◆ Terminal Connection Diagram and Location Chart



- Please perform the following checks before connecting the DC24V power supply:
 - Please check if the address code is set correctly and uniquely. Set the address code as the method shown in the figure below.
 - Check if the T+ and T- data transmission buses are connected correctly (between modules and between modules and the host, T+ and T- should not be connected reversely).
 - The input signals have been connected to the modules in order of alarm, referring to the note below to understand the relationship between the address code and the signal.
 - The host has been powered on and various program settings have been made.
- Connect the DC24V power supply:
 - The red LED will light up, the green LED for data transmission will flash.
 - When a signal alarm occurs, the corresponding green indicator light on the module will light up, such as for signal 01 alarm, the corresponding 01 indicator light will be on.
 - Do not change the address code after power on. Changing the address code must be done under power-off conditions.
 - The input signal can be connected or adjusted under power-on conditions.



Note: Module power DC24V (V+, V-), power access is necessary. Data bus (T+, T-), multiple modules are reconnected in parallel, and the alarm data will transfer to the host (T+, T-) end. Each module has a unique address code, please set the address code before the module connected to the host, and the address code is encoded according to the 8421 principle. Signal Alarm Circuit corresponding to Address Code: number 1 corresponds to 01-32 signal circuits, number 2 corresponds to 33-64 signal circuits, number 3 corresponds to 65-96 signal circuits, number 4 corresponds to 97-128 signal circuits, number 5 corresponds to 129-160 signal circuits, number 6 corresponds to 161-192 signal circuits, number 7 corresponds to 193-224 signal circuits, number 8 corresponds to 225-256 signal circuits. Please ensure that the address code is set correctly before powering on to avoid abnormal errors in the alarm module

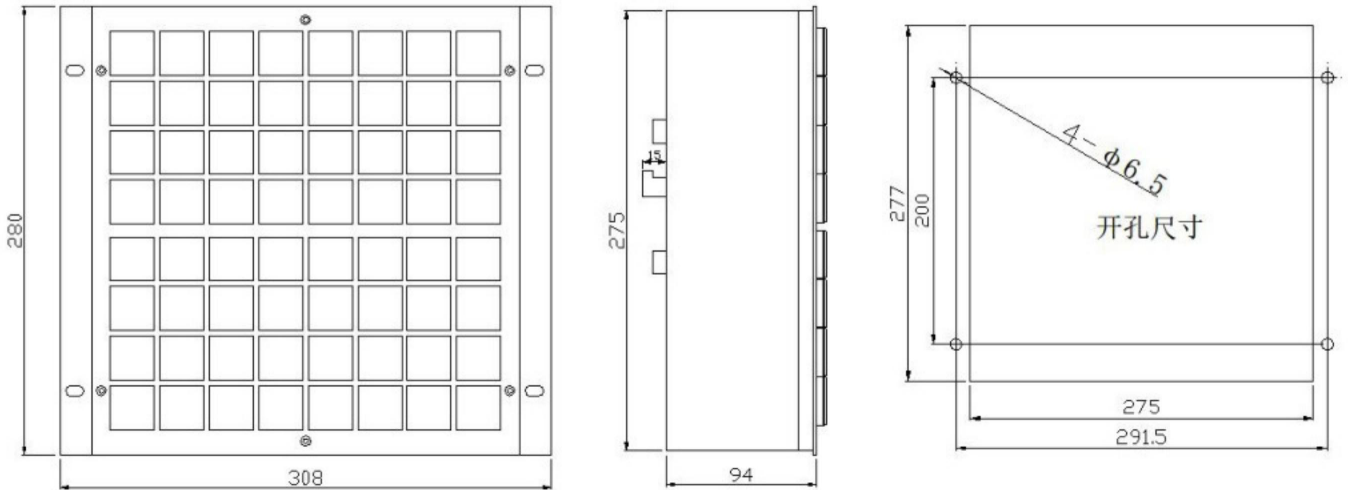
3, CAKJ-XXS-64GP

◆External View

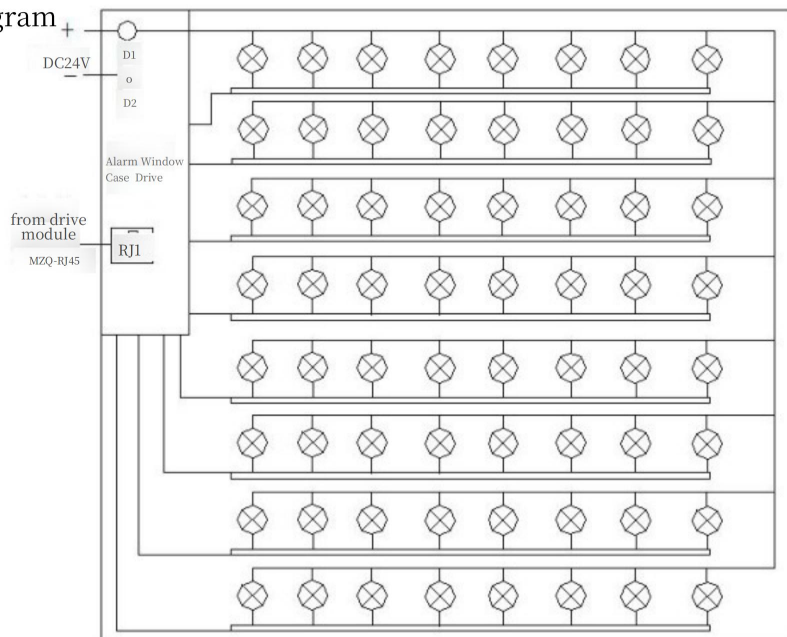
Alarm Window Case



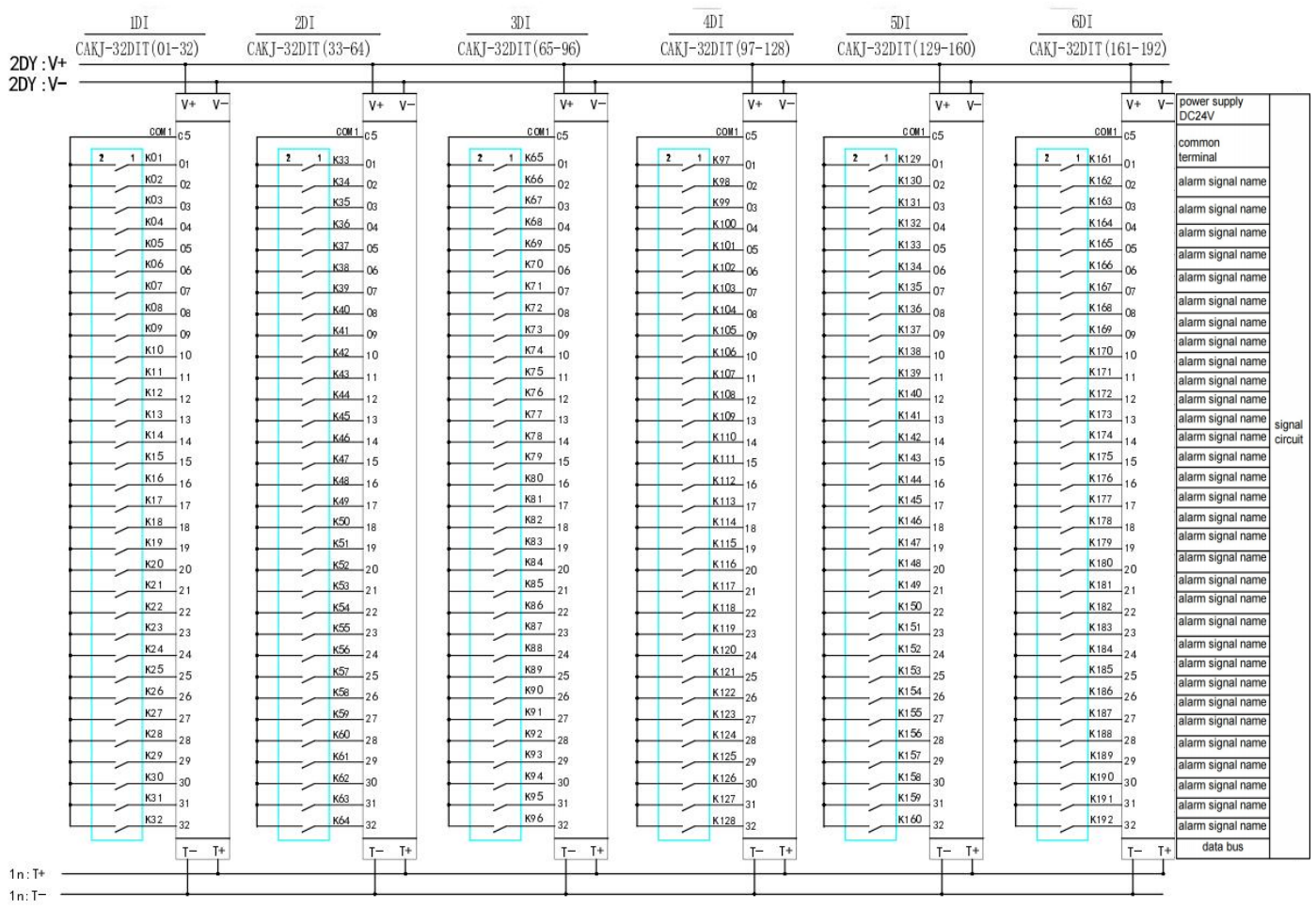
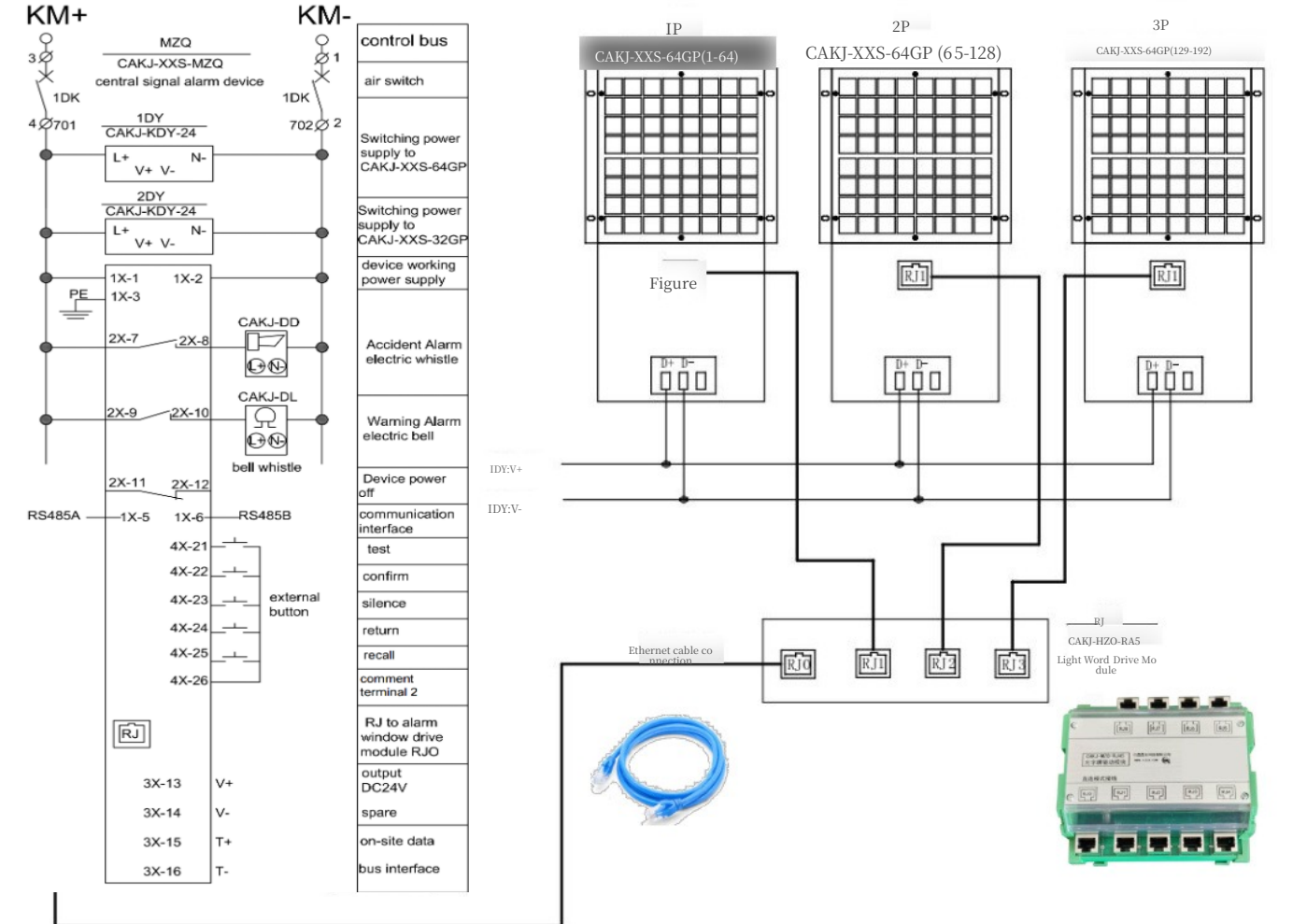
◆Dimensions and installation size



◆Wiring Diagram



5, CAKJ-XXS-192E Alarm System Wiring Diagram



CAKJ-DL,DD Electronic Bell and Whistle (optional)

1. Overview

CAKJ-DL, DD Electronic Bell and Whistle, is a low-power, interference-free, high-volume electronic alarm device designed for central signal alarm in power systems. It uses a microcontroller to simulate the sound spectrum of electromagnetic bells and whistles, with a sound similarity of up to 98% to electromagnetic bells and whistles.

2, Model Specifications:

CAKJ-DL Electronic Bell

CAKJ-DD Electronic Whistle

3, Technical Parameters:

Working power supply: AC, DC30~265V, wide voltage universal AC and DC, DC24V.

Consumption power: not more than 3VA when ordering, please indicate the power consumption.

Sound volume: 120DB

Bell sound: Ding-dong-dong-dong, uninterrupted sound

Whistle sound: Toot-toot-toot-toot, uninterrupted sound

Working mode: Ring when power is connected, and the LED is on, silent when power is disconnected, and the LED is off.

Dielectric performance:

Isolation voltage: 3000V between input terminals and ground for 1 minute.

Insulation resistance: >100MΩ.

Anti-interference capability: The product can withstand the electrical fast transient pulse group interference test specified in Chapter 5 of GB/T 17626.4-2008 with a test level of 4.

Applicable environment:

Temperature: -25~55°C

Humidity: not more than 90% RH

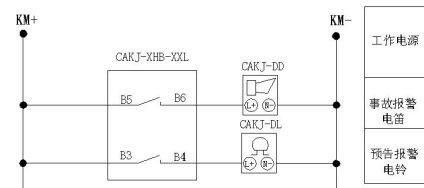
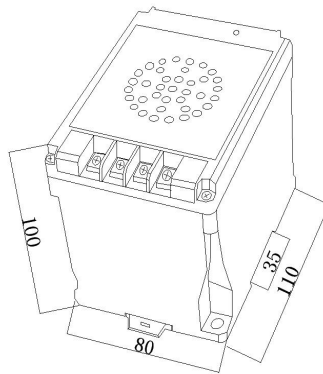
Average fault-free working time:

not less than 50000h

4, external dimensions and wiring:

External dimensions: 80x110x100mm

Installation method: 35mm rail installation



Switching power supply CAKJ -KDY-24

◆Overview

CAKJ-KDY-24 switching power supply is designed for the signal alarm system indicator light drive, or for the system that needs to convert the voltage of 220V, 110V, etc. into DC24V output.

◆Technical Parameters

Input Voltage: AC, DC220V (range 80-265V)

Output Voltage: DC24V Stabilized

Output power: 24W (24V, 1A) (Suitable for driving up to 128 light boards).

Applicable environment: temperature -25~55°C, humidity not more than 90% RH

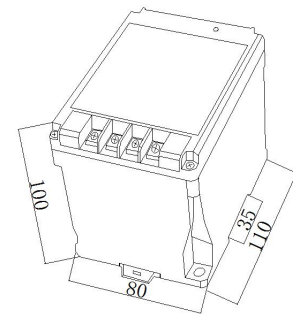
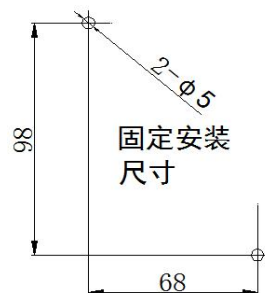
Mean time between failures: not less than 50000h

◆Dimensions and wiring

Dimensions: 80x110x100mm Slider

Mount: 35mm Standard Slider

Fixed installation: 68x98-φ5



PZX-2000/192 E
Central Signal System

Xuchang Chang'an Technology Co., Ltd.