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Acrel-6000/B3(485)型电气火灾监控设备

Acrel-6000/B3(485) Electrical Fire Monitor

安装使用说明书 V1.0

User's Manual V1.0

江苏安科瑞电器制造有限公司

Jiangsu Acrel Electric MFG. Co., Ltd.

⚠ 危险和警告

Risks & warnings

本设备只能由专业人士进行安装和维护，对于因不遵守本手册说明进行的违规操作所引起的故障，厂家将不承担任何责任。

This monitor shall only be installed and maintained by professionals. Manufacturer will not be responsible for malfunctions caused by non-compliance with the instructions in this manual.

触电、燃烧或爆炸的危险

Electric shock, fire or explosion risks

- **设备只能由取得资格的工作人员才能进行安装和维护。**
- **This monitor shall only be installed and maintained by qualified personnel.**
- **对设备进行维护操作前，应隔离电源供应。**
- **Please cut off and isolate the power supply before maintaining this monitor.**
- **要用一个合适的电压检测设备来确认电压已切断。**
- **Please use a suitable voltage detector to check if the voltage has been cut off.**
- **在将设备通电前，应将所有的部件恢复原位。**
- **Return all components back to their original conditions before powering this monitor up.**
- **设备在使用中应提供正确的额定电压。**
- **This monitor shall be powered according to its rated voltage in use.**

不注意这些预防措施可能会引起严重伤害。

Violating or neglecting these precautions may cause serious damages.

目 录 Contents

注意：本说明书针对 Acrel-6000/B3(485)型电气火灾监控设备及系统软件的使用进行全面介绍，用户使用前应仔细阅读，充分理解设备及系统软件的各项功能，以便正确、规范操作。

Note: This Manual describes the use of Acrel--6000/B3(485) Electrical fire Monitor and its software comprehensively. To operate this monitor correctly and properly, user shall read this Manual carefully and understand all functions of this monitor and its software completely before use.

1. 概述 Overview

Acrel-6000/B3(485)型电气火灾监控系统是安科瑞自主研发的集监视、报警、管理于一体的计算机测控系统，该系统适用于大型商场、生活小区、工矿企业、办公大楼、商场酒店等区域电气防火的集中监控管理。

Acrel--6000/B3(485) Electrical fire Monitor is a computerized sensing and control system that Acrel has developed independently for centralized monitoring and control of electrical fire in large shopping malls, living communities, industrial enterprises and mines, office buildings, hotels and similar applications, integrating the monitoring, alarm and control functions.

Acrel-6000/B3(485)型电气火灾监控设备通过 RS485 总线与多台电气火灾监控探测器相连，构成集散式电气火灾监控系统，实时监控电气线路的工作状态。

Acrel-6000/B3(485) Electrical fire Monitor is connected to several electrical fire detectors via a RS485 bus, which constitutes a centralized electrical fire monitoring system to monitor the working conditions of electrical circuits in real time.

监控设备能实时接收处理各路探测器发送的漏电、温度信号，同时在液晶屏幕上显示，当漏电、超温报警及设备电源或通讯发生故障时，监控设备能发出声光报警信号，在屏幕上显示故障位置及报警类型，并具有数据存储、查询和报警控制信号输出等功能，还具备对探测器的远程复位控制功能。

This monitor receives and processes the leakage and temperature signals from connected detectors and show these messages on its DISPLAY. If the leakage, temperature alarm, power supply or communication fails, this monitor will send the visible and audible alarm signals. It shows fault locations and alarm types on the DISPLAY, as well as boasts the data storage and query, alarm control signal output and remote detector resetting functions.

本设备结构合理、体积小、可靠性高、功能较强、维护方便、性价比高，系统界面直观、易用。

This monitor is characterized by the reasonable structure, compact size, high reliability, versatile functions, simple maintenance, good cost efficiency, intuitive system interface and easy use.

执行标准：本设备符合国家标准 GB14287.1-2014《电气火灾监控系统 第 1 部分：电气火灾监控设备》。

Reference standard. This Monitor complies with provisions in GB14287.1-2014, Electrical fire monitoring system---Part 1: Electrical fire monitoring equipment.

2. 基本功能 Basic functions

2.1. 监控报警功能 Monitoring and alarm function

监控设备能接收多台探测器的漏电、温度信息，报警时发出声光报警信号，同时设备上红色“报警”指示灯亮，显示屏指示报警部位及报警类型，记录报警时间，声光报警一直保持，直至按“复位”按钮（按键）远程对探测器实现复位。对于声音报警信号也可以使用显示屏“消声”按钮手动消除。

This monitor receives the leakage and temperature signals from connected detectors. In case of any fault, it

sends the visible and audible alarm signals and red Alarm lamp on the monitor lights up. Fault locations and alarm types are shown on its DISPLAY and the alarm time is recorded. The visible and audible alarm signals will remain unless detectors are reset remotely with one press on Reset or locally with one press on Muting on the DISPLAY.

2.2. 控制输出功能 Control output function

当被监测回路报警时，控制输出继电器闭合，用于控制被保护电路或其他设备，当报警消除后，控制输出继电器释放。

When an alarm indicates that the monitored channels fails, the control output relay will close for the protected channel or other equipment. When the alarm is cleared, the control output relay will be released.

2.3. 故障报警功能 Fault alarm function

通讯故障报警：本系统采用 485 通讯总线将具有通信功能的探测器相互连接起来，当探测器发生短路、断路等故障时，监控画面中显示相应的故障提示，同时设备上的黄色“故障”指示灯亮，并发出故障报警声音。

Alarm of communication fault. This monitor is connected via a RS485 bus to detectors with the communication function. If one detector is short circuited, broken or otherwise fails, the monitor DISPLAY will indicate such fault. Meanwhile, yellow alarm lamp on the monitor lights up and the audible fault alarm is sent.

电源故障报警：当主电源或备用电源发生故障时，监控设备也发出声光报警信号并显示故障信息，可进入相应的界面查看详细信息并可解除报警声响。

Alarm of power failure. If the mains or backup power supply fails, the monitor will also send the visible and audible alarm signal and show the fault message. In such case, view the detailed information on related screen and clear the alarm.

2.4. 自检功能 Self-diagnostics function

检查设备中所有状态指示灯、显示屏、喇叭是否正常。

Check if all LEDs, display and horn work normally.

2.5. 报警记录存储查询功能 Alarm record, storage and query function

当回路探测器发生漏电、超温报警或回路通讯故障、设备电源故障时，将报警部位、故障信息、报警时间等信息存储在数据库中，当报警解除、排除故障时，同样予以记录。历史数据提供多种便捷、快速的查询方法。

If any leakage or temperature alarm relates to a detector, or communication or power supply fails, the information on fault location, message and time will be recorded and saved in the database. The alarm muting or fault resetting will also be recorded and saved. There are several easy and swift accesses to historical records.

2.6. 电源功能 Power supply function

当主电源发生停电、欠压等故障时，监控设备可自动切换到备用电源工作，当主电源恢复正常供电时，自动切回到主电源，切换过程中保证监控设备连续平稳运行。

If the mains is cut, becomes under-voltage or otherwise fails, the backup power supply will be activated automatically. After the normal power supply is restored, the backup power supply will be replaced by the mains. Ensure that the monitor continues working stably during the switchover between the mains and the backup power supply.

2.7. 远程控制功能 Remote control function

通过监控软件操作，可对连接到本设备的所有探测器进行远程复位控制，灵活构建大容量监控系统。

All detectors connecting this monitor can be reset remotely with the monitoring software, constituting a flexible and large-capacity monitoring system.

2.8. 权限控制功能 Authority control function

为确保监控系统的安全运行，监控设备软件操作权限分为三级，不同级别的操作员具有不同的操作权限。

For safe operation of the monitoring system, there are three authority levels for the monitoring software. Operators are assigned with the operating authority according to their levels.

3. 主要技术参数 Main technical parameters

3.1. 电源 Power supply

① 额定工作电压 AC220V（85%～110%）；

Rated working voltage: 220VAC (85%-110%)

② 备用电源：主电源欠压或停电时，维持监控设备工作时间≥8 小时。

Backup power supply: maintain the running of monitor for 8 hours or longer if the mains becomes under-voltage or is cut

3.2. 工作制 Working hours

24 小时工作制。

7x24h

3.3. 通讯方式 Communication mode

采用 RS485 总线通讯，传输距离≤500m。

Employ RS485 communication at the maximum distance of 500 m.

3.4. 监控容量 Monitoring capacity

监控设备共有 4 条回路，每条回路可接≤32 个监控单元（探测器）；

This monitor offers 4 channels. Each of 4 channels can accommodate at most 32 monitoring units (detector).

3.5. 监控报警项目 Monitoring alarms

① 剩余电流故障（漏电）：故障单元属性（部位、类型）；

Residual current fault (leakage): fault properties (location and type)

② 温度报警（超温）： 故障单元属性（部位、类型）；

Temperature alarm (over-temperature) : fault properties (location and type)

监控报警响应时间： ≤10s

Response time: ≤10s

监控报警声压级（A 计权）：≥65dB/1m，≤115 dB/1m；

Sound pressure level (A-weighted): ≥65dB/1m, ≤115 dB/1m

监控报警光显示：红色 LED 指示灯，红色光报警信号应保持，直至手动复位；

Visible signal: red LED that keeps on unless it is reset manually

监控报警声信号：可手动消除，当再次有报警信号输入时，能再次启动。

Audible signal: to be cleared manually and re-triggered in case of another fault input

3.6. 故障报警项目 Fault alarms

① 监控设备与探测器之间的通讯连接线发生断路或短路；

The communication connection between this monitor and detectors is broken or shorted.

② 探测器与剩余电流传感器、温度传感器之间连接线发生短路或短路；

The connection between detectors and residual current sensors or temperature sensors is broken or shorted.

③ 监控设备主电源欠压或断电；

The mains is under-voltage or cut.

④ 给电池充电的充电器与电池之间的连接线发生断路或短路。

The connection between the charger and the battery is broken or shorted.

故障报警响应时间：≤100s；

Response time: ≤100s

监控报警声压级（A 计权）：≥65dB/1m，≤115 dB/1m；

Sound pressure level (A-weighted): ≥65dB/1m, ≤115 dB/1m

监控报警光显示：黄色 LED 指示灯，黄色光报警信号应保持至故障排除；

Visible signal: yellow LED that keeps on unless the fault is reset manually

故障报警声信号：可手动消除，当再次有报警信号输入时，能再次启动；

Audible signal: to be cleared manually and re-triggered in case of another fault input

故障期间，非故障回路的正常工作不受影响。

Except for the faulty channel, other channels shall still work normally without interference.

3.7. 控制输出 Control output

报警控制输出：1 组常开无源触点；容量：AC220V 1A 或 DC30V 1A.

Alarm control output: 1 set of NO passive contacts

Capacity: 220VAC, 1A or 30VDC, 1A

3.8. 自检项目 Self-diagnostics

① 指示灯检查：运行、电源、消音、故障、报警指示灯；

Check LEDs, namely Run, Mains, Muting, Fault and Alarm.

② 显示屏检查；

Check the display.

③ 音响器件检查；

Check audio components.

④ 自检耗时 ≤60s。

Time: ≤60s

3.9. 事件记录 Event record

① 记录内容：记录类型、发生时间、探测器编号、区域、故障描述，可存储记录不少于 1 万条；

Content: record type and time, detector #, location and fault description. The record can save at least 10,000 entries.

② 记录查询：根据记录的日期、类型等条件查询。

Query: according to the record data, type and other conditions

3.10. 操作分级 Operation levels

① 日常值班级：实时状态监视、事件记录查询、探测器远程复位、监控设备系统参数查询；

On-duty level: real-time status monitoring, event record query, remote resetting of detector, monitor parameter query

② 监控操作级：实时状态监视、事件记录查询、探测器远程复位、设备自检、监控设备系统参数查询；

Monitoring operator level: real-time status monitoring, event record query, remote resetting of detector, self-diagnostics, monitor parameter query

③ 系统管理级：实时状态监视、事件记录查询、探测器远程复位、设备自检、监控设备系统参数查询、退出监控。

System administrator level: real-time status monitoring, event record query, remote detector resetting, self-diagnostics, monitor parameter query, log-out

3.11. 使用环境条件 Working conditions

① 工作场所：消防控制室内、有人值班的变配电所（配电室）、有人值班的房间内墙壁上；

Workplace: fire control room, manned power substation (switching room), manned control room (internal wall)

② 工作环境温度：0℃~40℃；

Working temperature: 0℃-40℃

③ 工作环境相对湿度：5%～95%RH；

Relative humidity: 5%-95%RH

④ 海拔高度：≤2500m。

Altitude: ≤2500m

4. 设备组成部件 Components

4.1 主要参数及组成部件 Components and main specifications

① 主控单元：7 寸工业级平板电脑，配有触摸显示屏，WinCE 操作系统；

Main control unit: 7” industrial tablet computer configured with a touch screen and WinCE system

② 声光报警器：内置喇叭、LED 指示灯；

Visible and audible alarm unit: consist of horn and LEDs

③ 备用电源： 2 节 12V/7Ah 的免维护蓄电池.

Backup power supply: 2x 12V/7Ah maintenance-free batteries

4.2 面板元件布置及功能说明 Panel configuration and function description

Acrel-6000/B3(485)型电气火灾监控设备面板布置如图 1 所示：

The panel of Acrel-6000/B3(485) Electrical Fire Monitor is configured as shown in Fig. 1:

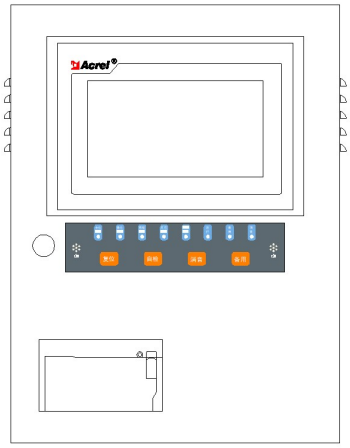

图 1　监控设备面板示意图

Fig. 1 Monitor Panel Configuration

主电工作指示灯（绿色）：设备主电正常运行时，指示灯常亮；

Mains LED (green): turn on when the mains works normally

备电工作指示灯（绿色）：设备主电出现异常，备电工作时时常亮；、

Backup power supply LED (green): turn on when the mains fails and the backup power supply is activated

系统故障指示灯（黄色）：主程序故障，程序不能正常运行，系统故障指示灯常亮；

System fault LED (yellow): turn on when the main program works abnormally because of faults

其他故障指示灯（黄色）：当本系统发生故障时（如通讯故障、电源故障等），故障指示灯常亮；

Other fault LED (yellow): turn on when the system fails (e.g. communication fault, power supply fault)

报警指示灯（红色）：设备接收到探测器发出的报警信号时，报警指示灯常亮；

Alarm LED (red): turn on when the monitor receives any alarm signal from detectors

运行指示灯（绿色）：设备正常运行时，指示灯常亮；

Running LED (green): turn on when the monitor works normally

消音指示灯（绿色）：监控设备处于消音状态时，指示灯常亮；

Muting LED (green): turn on when the monitor is Muting

备用指示灯（绿色）：留作备用，暂无作用；

Reserved LED (green): unavailable now, only reserved for use in the future

自检按钮（橙色）：对系统进行自检操作；

Self-diagnostics button (orange): activate the system self-diagnostics

备用按钮（橙色）：留作备用，无作用；

Reserved button (orange): unavailable now, only reserved for use in the future

消音按钮（橙色）：对系统进行消音操作；

Muting button (orange): silence the system alarm

复位按钮（橙色）：对系统进行复位操作；

Resetting button (orange): reset the system

微型打印机：用于打印实时报警、故障、事件信息。

Mini printer: print out the real-time alarms, faults and event information

5. 安装与调试 Installation and debugging

5.1 系统示意图 System layout

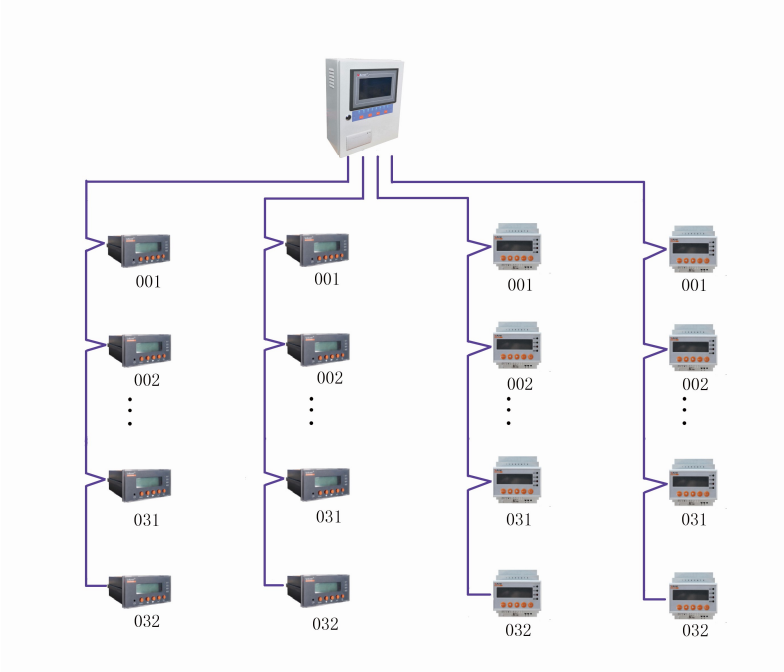

图 2 系统示意图

Fig.2 System Layout

5.2 设备安装 Installation

5.2.1 环境 Environment

设备应安装在干燥、清洁、远离热源和强电磁场的地方。

The monitor shall be installed at a dry and clean place away from heat sources and strong electromagnetic fields.

5.2.2 安装方式 Installation procedure

监控系统为壁挂式安装，用膨胀螺钉将主机四个安装脚固定。膨胀螺钉的安装使用方法：

For this monitor, employ the wall-hung installation. Fix 4 legs of monitor with expansion bolts in the following way:

1. 确定膨胀螺钉安装的具体位置，把膨胀螺钉打到墙面上的安装孔一定距离后用锤子将膨胀钉打入孔中6～7mm，之后用扳手拧紧膨胀螺栓上的螺母,螺栓往外走,而外面的金属套却不动。于是螺栓底下的大头就把金属套涨开,使其涨满整个孔。此时膨胀螺栓就抽不出来了；

Define expansion bolt locations. Insert an expansion bolt into its hole to the specified depth and hit it further into the hole (6- 7 mm deep) with a hammer. Tighten nuts with a spanner until the bolt moves out but the bolt sleeve remains unchanged. The big end at the bolt bottom expands the sleeve to fill in the hole. Now, the expansion bolt is secured firmly.

2. 打好 4 个孔后，将监控系统对应挂于膨胀螺钉上，然后用配套的螺母固定，并使其牢固不可移动，此时便已经安装好了，且手动不可拆卸。

After drilling 4 holes, support the monitor with expansion bolts and fix it with supplied nuts. By then, the monitor is installed and cannot be removed by bare hands.

5.2.3 设备尺寸 Monitor dimensions

Acrel-6000/B3（485）电气火灾监控设备的外形尺寸为：400*300*160（H*W*D）mm，安装尺寸为：320×240（H*W）。

Overall dimensions of Acrel-6000/B3 (485) Electrical Fire Monitor: 400*300*160 (H*W*D) mm

Installation dimensions of Acrel-6000/B3 (485) Electrical Fire Monitor: 320×240 (H*W)

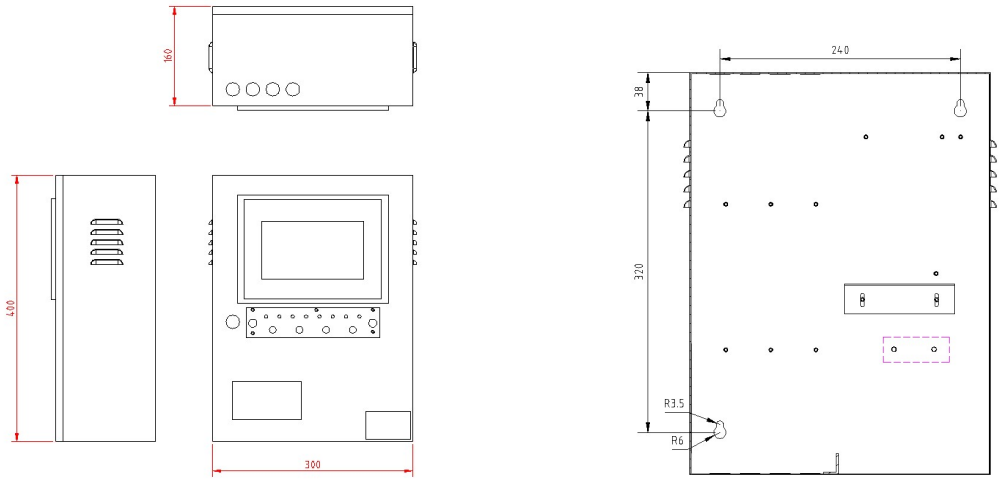

图 3 Acrel-6000/B3(485)型电气火灾监控设备外形尺寸及安装尺寸

Fig. 3 Overall and Installation Dimensions of Acrel-6000/B3(485) Monitor

5.3 接线 Wiring

按照系统施工规范安装监控器和敷设通讯线缆，将通讯线缆接入监控器的通讯总线接线端子。监控器的接线端子排装于设备的内部，端子排各端子的定义如表 1 所示。

Monitor installation and communication cabling shall comply with applicable specifications. Connect the communication line to the communication bus terminal. The wiring terminal block is mounted in the monitor. Table 1 gives the definitions of these terminals.

表 1　监控器接线端子功能对照表

Table 1 Wiring Terminal Functions of Monitor

端子序号 Terminal No.	说明 Description		端子序号 Terminal No.	说明 Description
1	通道 1 通讯总线接线端子 1st-channel communication bus terminal A		6	通道 3 通讯总线接线端子 B 3rd-channel communication bus terminal B
2	通道 1 通讯总线接线端子 B 1st-channel communication bus terminal B		7	通道 4 通讯总线接线端子 A 4th-channel communication bus terminal A
3	通道 2 通讯总线接线端子 A 2nd-channel communication bus terminal A		8	通道 4 通讯总线接线端子 B 4th-channel communication bus terminal B
4	通道 2 通讯总线接线端子 B 2nd-channel communication		9	控制输出 OUT1 Control output OUT1

	bus terminal B			
5	通道 3 通讯总线接线端子 A 3rd-channel communication bus terminal A		10	控制输出 OUT2 Control output OUT2

备注：

Remark:

1、 通道 1、2、3、4 通讯总线接线端子为外接通讯总线接线端子；

Communication bus terminals of 1st, 2nd, 3rd and 4th channels are used for external communication bus.

2、 外接通讯总线需采用屏蔽双绞线；建议采用规格为 NH-RVSP-2×1.5 mm²的线缆；

The external communication bus shall be shielded twisted pair. Recommend NH-RVSP-2×1.5 mm² cable.

3、 单回路容量≤32 点，适用于单体建筑，单回路总线长度≤500 米。

A channel can accommodate maximum 32 detection points. It is suitable for a single building. The bus for one channel shall be 500 m or shorter.

5.4 单机调试 Offline debugging

监控设备安装完成后，检查设备内部的各部件安装是否牢固，紧固件是否有松动现象，各连线、接插件连接是否可靠。检查完成后，进行以下项目的单机调试。

After the monitor is installed, check if all internal components, fasteners and wires and inserts are secured. Then carry out the offline debugging on one monitor according to the following items:

- 检查主控单元启动是否正常；
- Check if the main control unit is activated normally.
- 检查报警指示灯、控制输出节点工作是否正常；
- Check if the alarm LED and control output nodes work normally.
- 检查报警喇叭工作是否正常；
- Check if the alarm horn works normally.
- 检查主、备电切换是否正常，检查电池断路报警是否正常；
- Check if the switchover between the mains and the backup power supply is normal and if the battery open-circuit alarm functions.
- 检查外接通讯端子是否正常；
- Check if the external communication terminals function.
- 检查联动信号报警是否正常.
- Check if the linkage alarm is normal.

5.5 系统调试 Online debugging

单机调试完成后，按照以下顺序进行系统调试

After the offline debugging, carry out the online debugging in the following sequence.

- 接通监控设备、各探测器工作电源，通过通讯导线、转换设备等将探测器与监控设备连接；
- Switch on the monitor and detectors and connect the monitor to detectors with the communication line, converter and other similar connectors.
- 配置监控设备的系统参数（包括通讯端口，探测器通讯地址等）；
- Configure monitor parameters (e.g. communication ports and detector communication address)
- 设置探测器通讯地址、剩余电流报警值、温度报警值等；
- Set the detector communication address, residual current alarm value, temperature alarm value and others.
- 检查通讯是否正常，如不正常则检查通讯地址及通讯线缆的联接情况，直至与所有探测器正常通讯；
- Check if communication functions. If not, check the communication address and the communication cabling until all detectors communicate normally.
- 检查剩余电流报警值、温度报警值设定是否合理.
- Check if the residual current alarm value and the temperature alarm value are set reasonably.

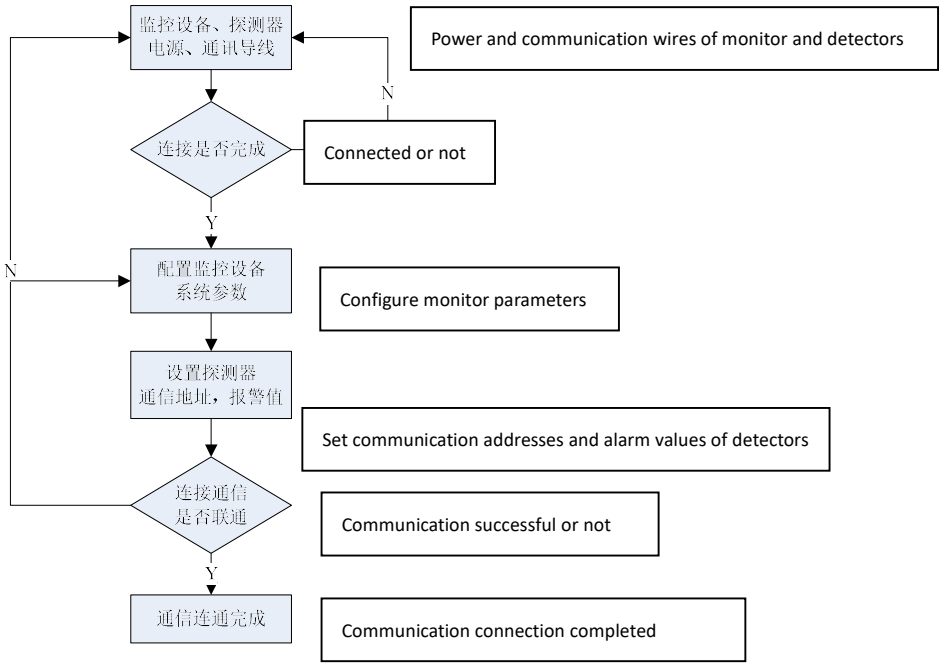

图 4 通讯调试流程图

Fig. 4 Communication Debugging Flow Chart

6. 使用说明 Operation instructions

6.1 设备启动与登录 Startup and log-in

设备上电后，监控软件自动运行，显示屏显示程序未登录状态下的主页面（如图 5 所示），此时软件已经准备就绪，等待用户登录。

The monitoring software will start as soon as the monitor is powered. Then the display shows the home screen when the program is not logged in (see Fig. 5). Now the software is ready for user to log in.

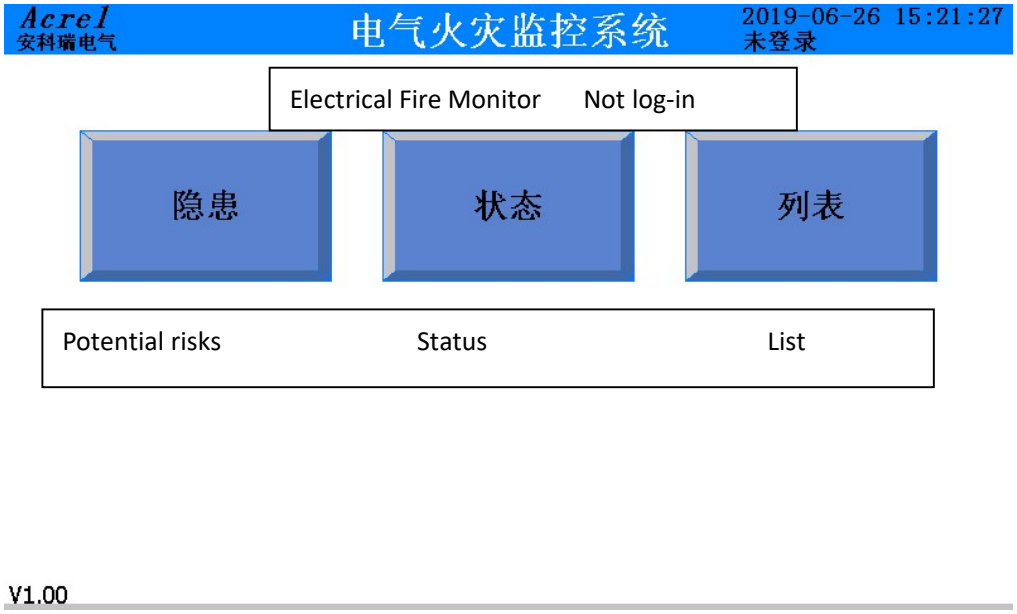

图 5 系统未登录界面

Fig. 5 Screen of System Before Log-in

点击任一按钮即可进去登录界面，例如：“隐患”按钮，进入后的页面如图 6 所示。

Click any button to show the log-in screen. If clicking Potential Risks, for example, the screen will be shown as Fig. 6.

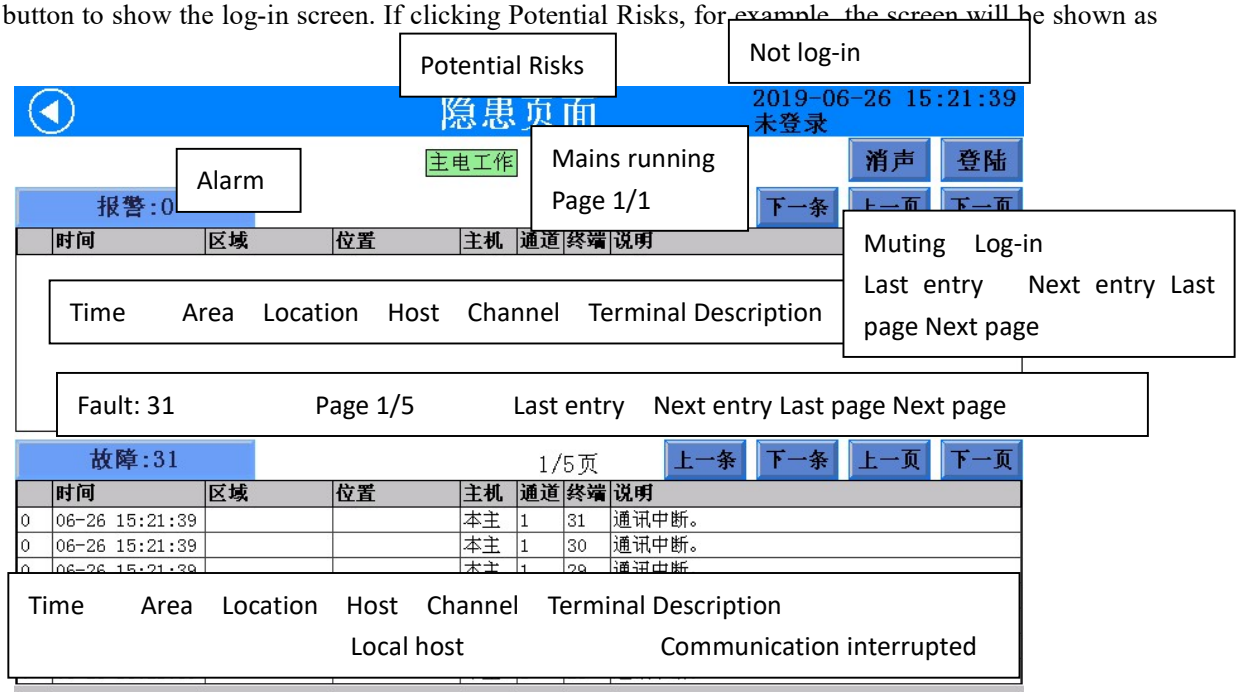

图 6

Fig. 6

点击右上角的“登录”按钮，会弹出用户信息确认对话框，如图 7 所示，通过下拉菜单选择用户名，使用对应数字的按钮输入密码后，如果密码正确，则登录成功。

Click Log-in at the upper right corner. Then a user information confirmation box is shown as Fig. 7. Select your name in the drop-down list and enter your pin on the numeric keyboard. If the pin is correct, you will log in successfully.

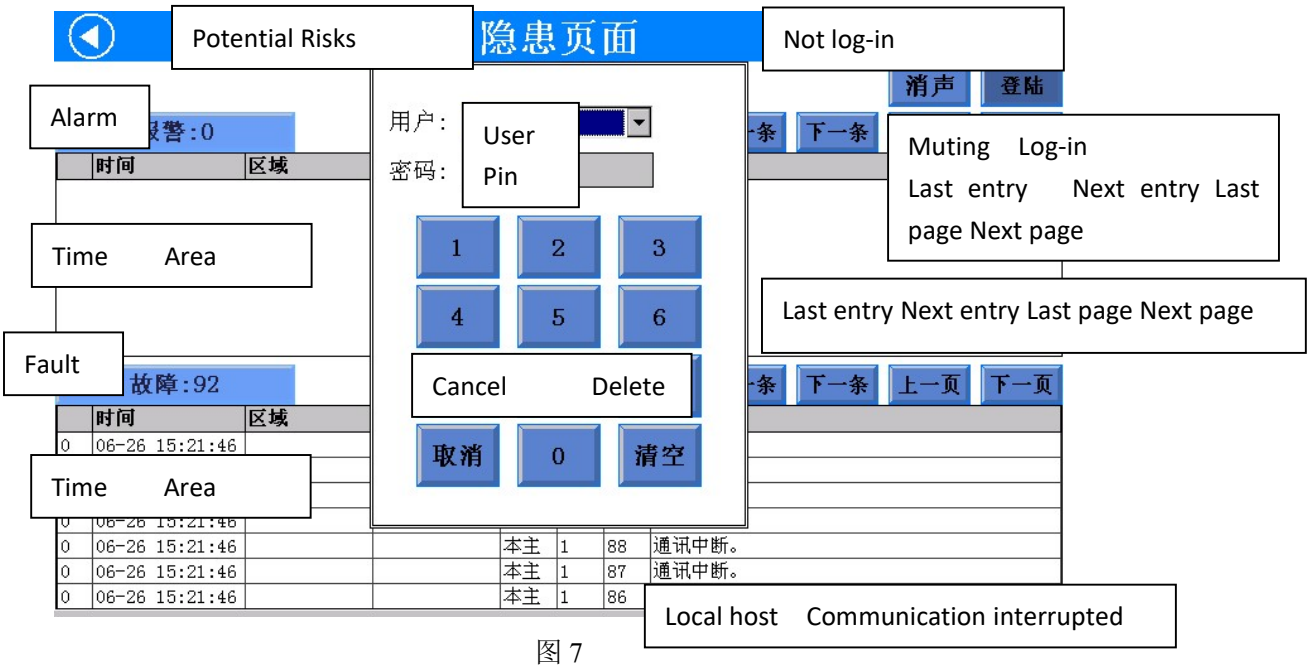

图 7

Fig. 7

登录系统后的系统界面如图 8 所示。

The screen is shown as Fig. 8 after successful log-in.

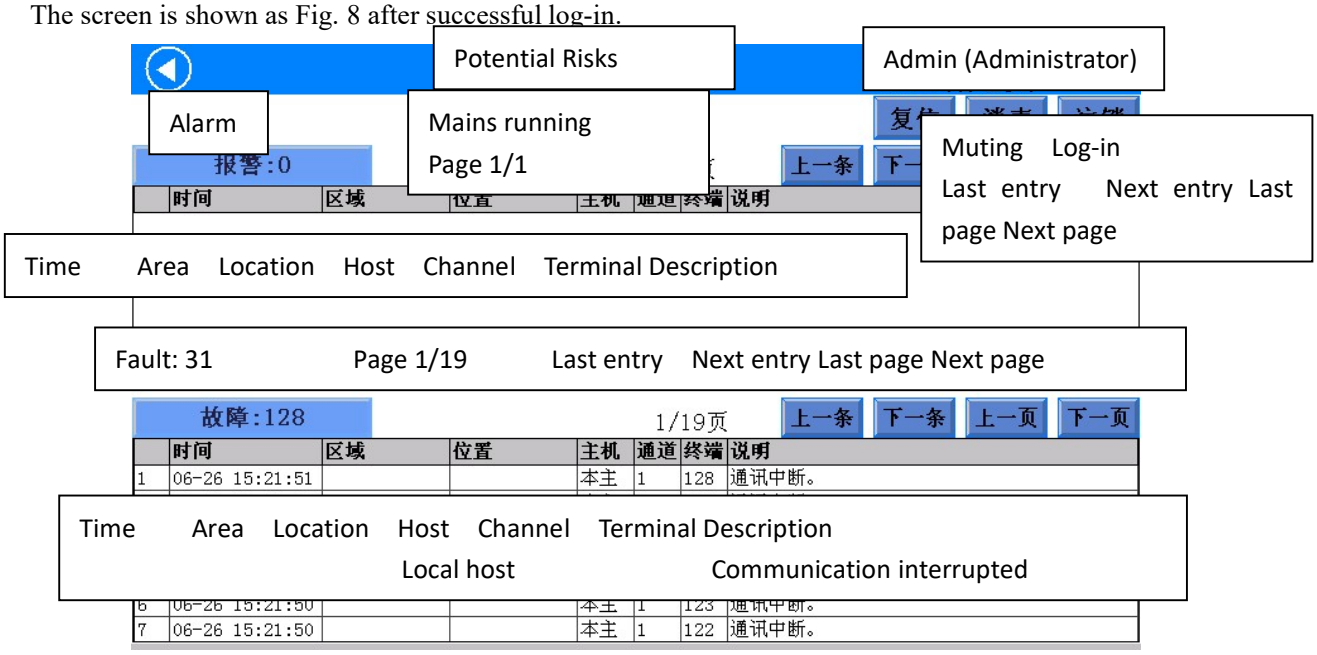

图 8

Fig. 8

点击左上角的 < 按钮，回到系统的首页面，该页面共有 6 个按钮（隐患、状态、列表、事件、自检、维护），可以分别进入 6 个不同的页面。

Click < at the upper left corner to return the home screen. There are 6 buttons (potential risks, status, list, events, self-diagnostics and maintenance) to enter various function screens.

系统依据国标 GB14287.1-2014《电气火灾监控系统 第 1 部分：电气火灾监控设备》中 4.8 操作级别的要求，设置了操作权限的管理功能。操作权限分为“管理员级别”、“操作员级别”和“值班员级别”三个级别。管理员级别为最高权限，其可操作系统的任何一个功能模块；操作员级别为次高级权限，可操作除针对系统本身的信息维护外的其他操作；值班员级别只可查看实时监测情况、消除报警声音和查询事件信息。当操作员登

录系统后，系统会根据操作员的权限显示相应的导航按钮。

Operation authorities of this system are established and managed according to requirements of GB14287.1-2014, Electrical fire monitoring system---Part 1: Electrical fire monitoring equipment, 4.8 Operation levels. There are three operation authority levels, i.e. Administrator level, Operator level and On-duty level. Administrator boasts the highest authority to operate all function modules. The operator level is inferior to the administrator level, enabling all system operations except for system information maintenance. Users on the on-duty level can just view the real-time monitoring conditions, clear the alarm and query event information. Upon log-in, the system activates the navigation buttons according to operation authorities.

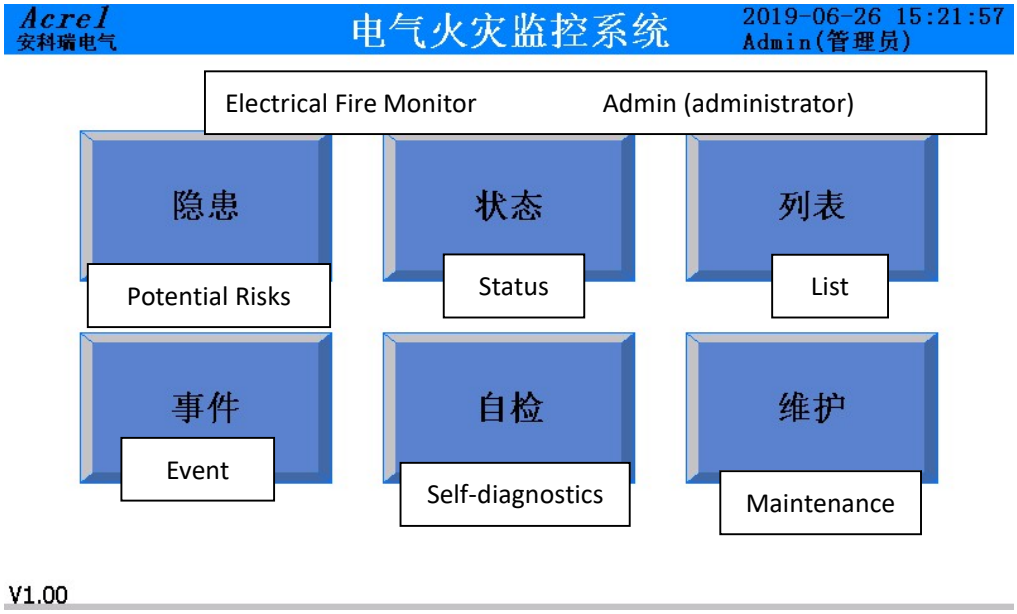

图 9

Fig. 9

6.2 “隐患”页面操作 Operations on the potential risks screen

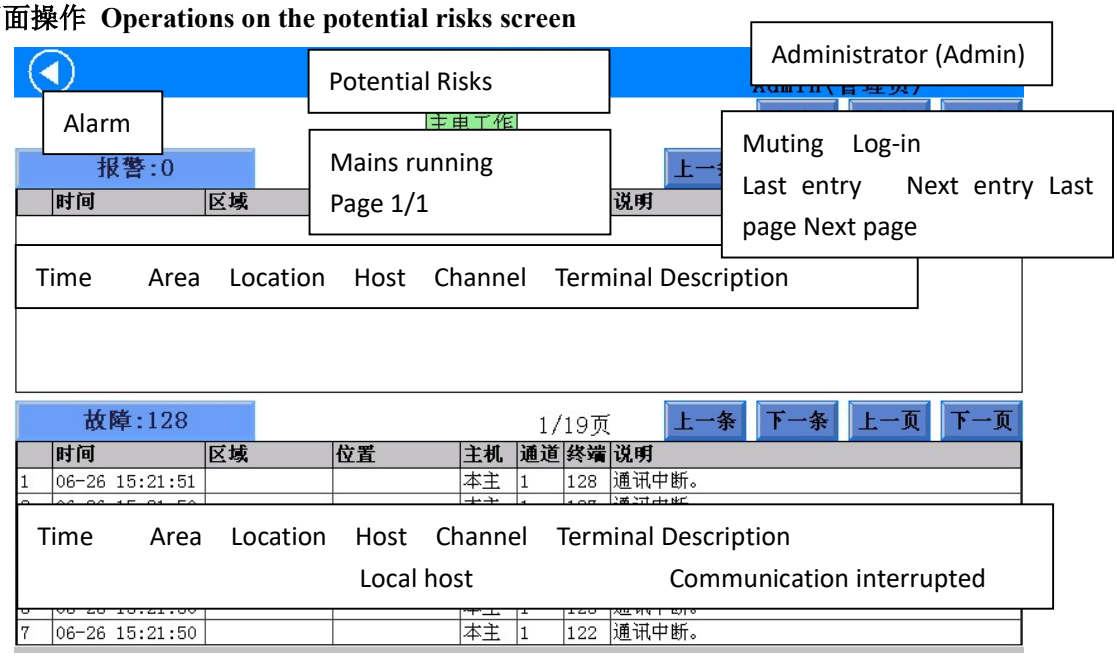

图 10

Fig. 10

①登录与注销 Log-in and log-out

点击主页面的“登陆”按钮，即显示登录界面（如图 8 所示），当登录成功后，“登陆”按钮会立刻变成“注销”按钮，单击该按钮会让当前登录用户退出登录，此时系统进入未登录状态。

Click Log-in on the home screen. The log-in screen is shown as Fig. 8. After successful log-in, Log-in will change to Log-out. A user can log out with one click on Log-out. Then the system returns to the status before log-in.

特别说明：本软件针对的任意复位操作均需权限登录后方可操作，以防止无关人员误操作。此处特别提醒管理员登录完成相应操作后，切记进行注销操作。

Importance. To prevent unauthorized operations, any software resetting is only permissible for users with specified log-in authority. The administrator is reminded of logging out after completing the desired operation.

②复位 Reset

登录后，点击“复位”按钮，即可对系统进行复位操作。当系统中有探测器发生报警，并排除报警后，可对系统进行复位，使其恢复到正常状态。复位操作需要操作员输入密码进行确认。

To reset the system, click Reset after log-in. If any detector is faulty, clear the fault and then reset the system to return it to its normal conditions. A user shall confirm the resetting by entering the pin.

③消声 Muting

故障、报警的提示音信号可以手动消除，当再次有故障、报警信号输入时，提示音信号将再次启动。

Audible fault alarms can be cleared manually. They will be triggered again in case of another fault alarm input.

操作员可以通过点击“消声”按钮来手动消除当前的故障、报警提示音。

To clear an existing audible fault alarm, click Muting.

④报警列表、故障列表 Alarm list and fault list

各级操作权限操作员均可查看该界面的信息。

All users can view the information on this screen, regardless of operation authorities.

当系统中发生任何故障（如探测器通讯故障、主电欠压等）时，故障列表中会有相应条目显示故障的具体信息。如果故障解除，那么故障列表中对应条目将自动消失。当系统中的探测器发生任何报警时，报警列表中会有相应条目显示报警的具体信息。当报警解除后，需要对系统和探测器进行复位，才能从报警列表中消除相应的条目。

In case of any system fault (e.g. communication fault of detector and under-voltage mains), an entry in the fault list will indicate the specific information on the fault. The entry will disappear automatically after the fault is cleared. In case of any detector fault, an entry in the fault list will indicate the specific information on the fault. Reset the system and the detector after the fault is cleared. Then the entry will disappear.

6.3 “状态”页面操作 Operations on the status screen

各级操作权限操作员均可查看该页面的信息。

All users can view the information on this screen, regardless of operation authorities.

操作员可点击首页面中的“状态”按钮进入“状态页面”，界面如图 11 所示。

To view the status screen as shown in Fig. 11, click Status on the home screen.

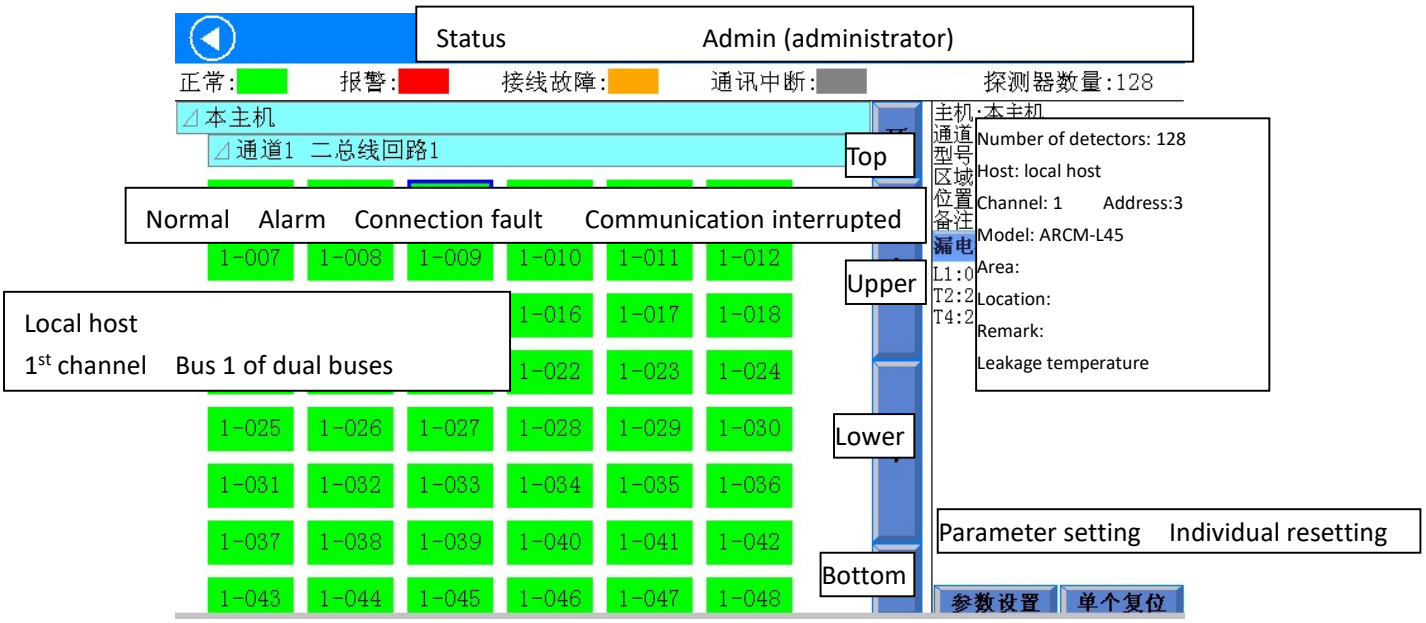

图 11 探测器状态显示界面

Fig. 11 Detector Status Screen

在“状态界面”中，操作员可以直观的看到所有探测器的状态，探测器的状态以颜色进行区分，绿色表示正常，橙色表示故障，红色表示报警，灰色表示通讯中断，用户通过点击探测器的图标来查询该探测器的信息，被点击的探测器图标会以蓝色粗线框包围，此时该探测器的信息在页面右侧以显示，主要内容包括：探测器的编号、类型、所在的监控区域及探测器中各电参量的值。

A user can view the status of all detectors on the status screen. The detector status is identified in color. Green indicates that the detector is normal. Orange indicates that the detector is faulty. Red indicates that an alarm is triggered for the detector. Grey indicates that the detector communication is interrupted. To view the information on a detector, click the icon of such detector. Then the icon will be highlighted with blue bold line. The detector information will be shown on the right side, including the detector number, type, location and related electrical parameters.

点击参数设置，进入如图 12 所示参数设置页面，点击需要修改的保护参数，可以对当前参数进行修改或选择广播，对所有探测器参数进行修改。各级操作权限操作员均可对单个探测器进行复位操作。

To enter the parameter setting screen as shown in Fig. 12, click Parameter Setting. Select a parameter with one click and then alter it. Alternatively, select Broadcasting and alter all detector parameters. All users can reset one detector, regardless of operation authorities.

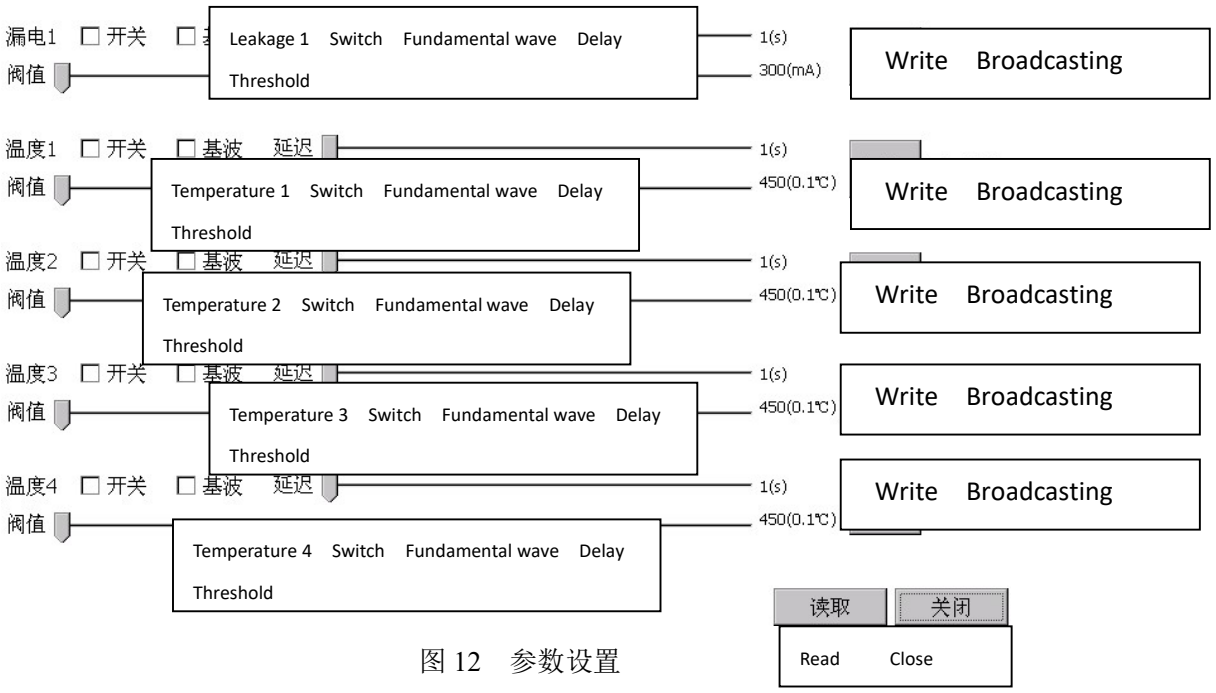

图 12 参数设置

Fig. 12 Parameter Setting

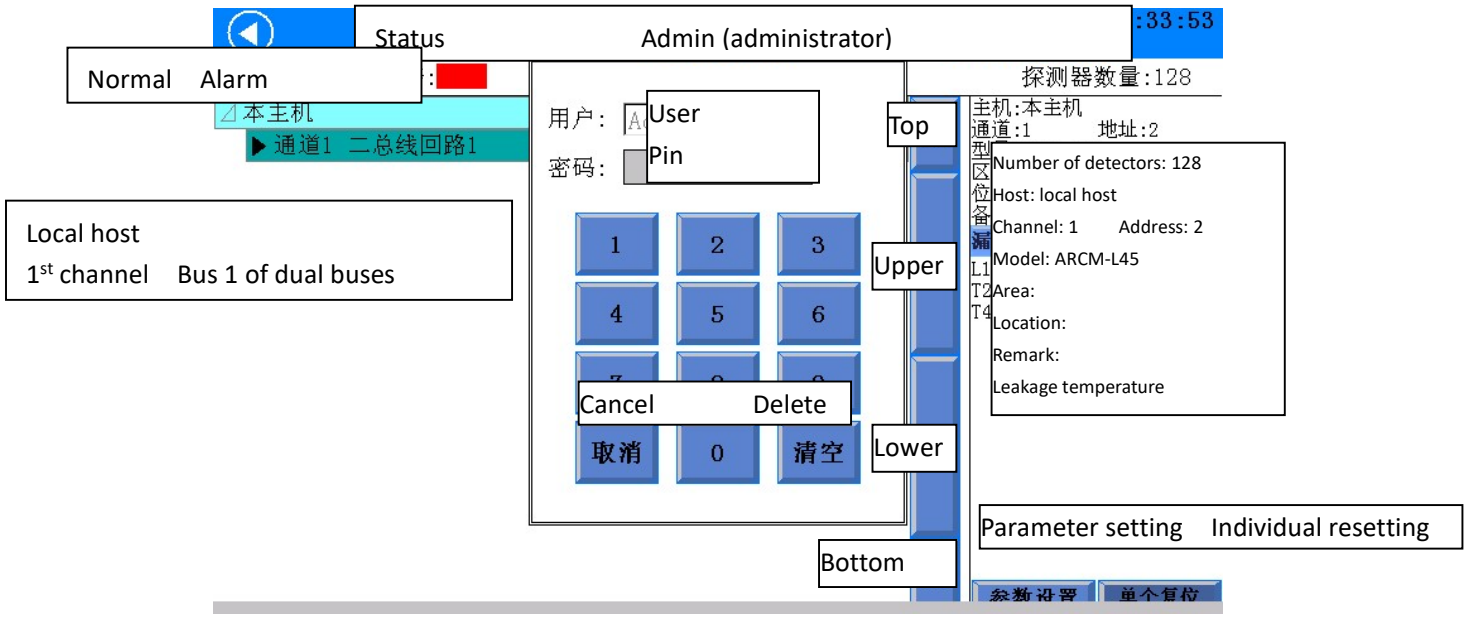

图 13 单个复位

Fig. 13 Individual Resetting

6.4 “列表”页面操作 Operations on the list screen

通过点击“功能列表”的“列表”按钮即可进入“列表页面”，如图 14 所示。

To enter the list screen as shown in Fig. 14, click List in the Function List.

列表页面以列表的方式显示系统所有探测器的采集数据以及状态。列表中的每一行代表一个探测器，每一列代表某个探测器的一个属性。点击任何一行可以选中一个探测器，此时，该探测器的详细信息会显示在页面右侧。同样可以点击探测器的图标来查询该探测器的信息，进行复位操作和参数设置。

The list screen lists the acquired data and the status of all detectors in the system. Each row in the list represents one detector and each line describes one property of a detector. Click one row to select a detector. Then the detailed detector information is shown on the right. To query the information on a detector, reset a detector or set parameters

of a detector, click the icon of such detector.

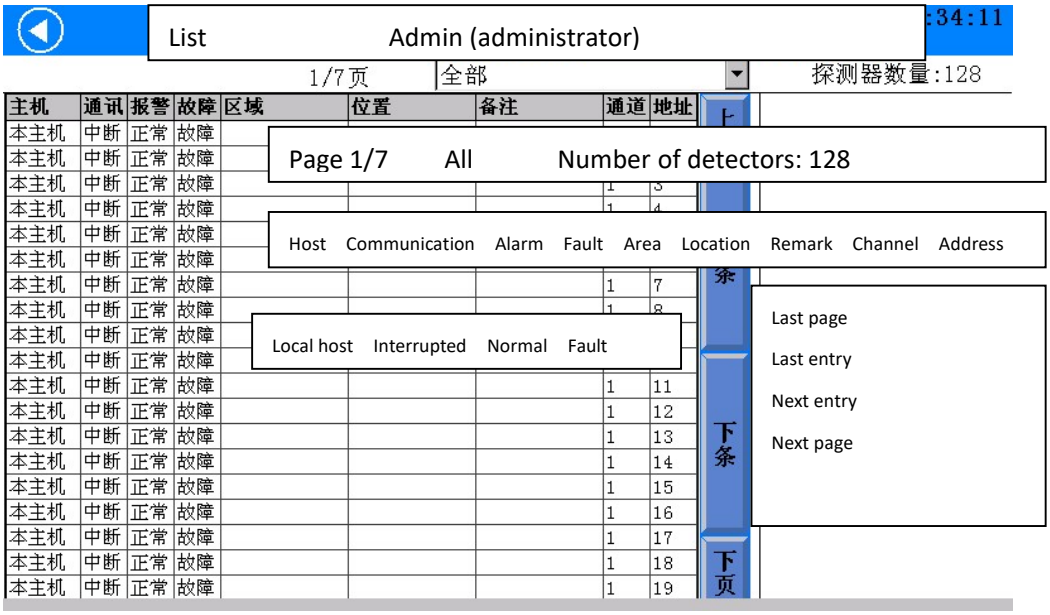

图 14 列表界面

Fig. 14 List Screen

6.5 “事件”页面操作 Operations on the event screen.

各级操作权限均可查看该界面的信息。

All users can view the information on this screen, regardless of operation authorities.

通过点击首页面中的“事件”按钮进入如图 15 所示的事件记录查询界面。

To enter the event screen as shown in Fig. 15, click Event on the home screen.

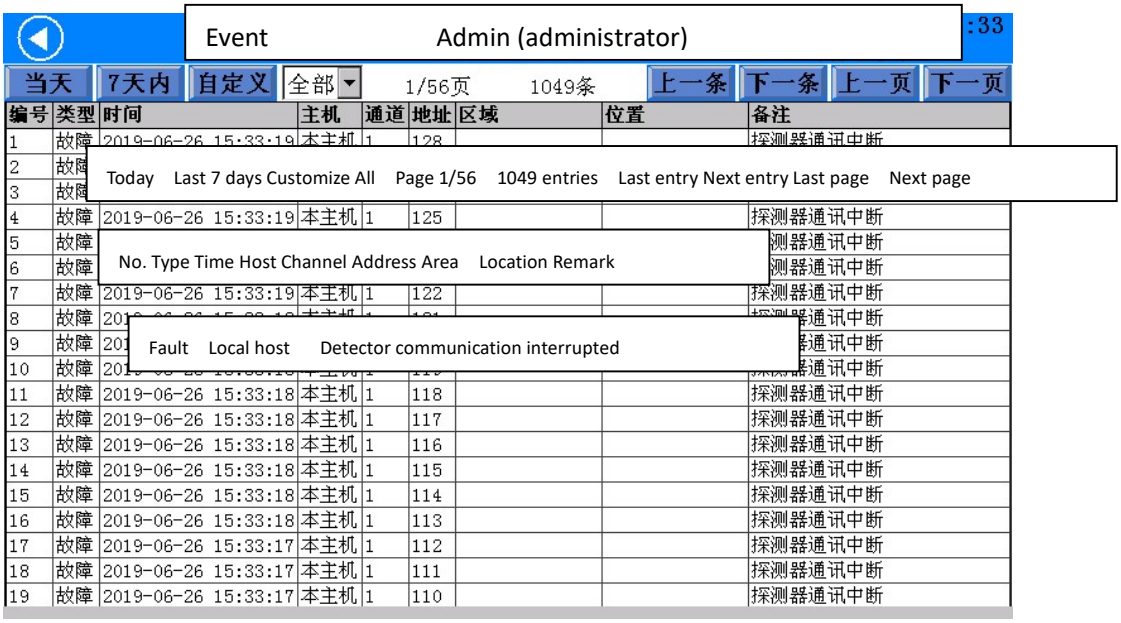

图 15 事件页面

Fig. 15 Event Screen

在该页面内可查询任意时段内的报警、故障、事件记录。点击“当日”按钮查询当日所有记录，点击“最近 7 天”按钮查询最近 7 天所有记录。点击“自定义”按钮可以选择时间范围再进行查询，如图 16 所示。

This screen provides alarm, fault and event records in any time. To query all today records, click Today. To

query all records in last 7 days, click Last 7 days. To query all records in other time, click Customize to select the desired time, as shown in Fig. 16.

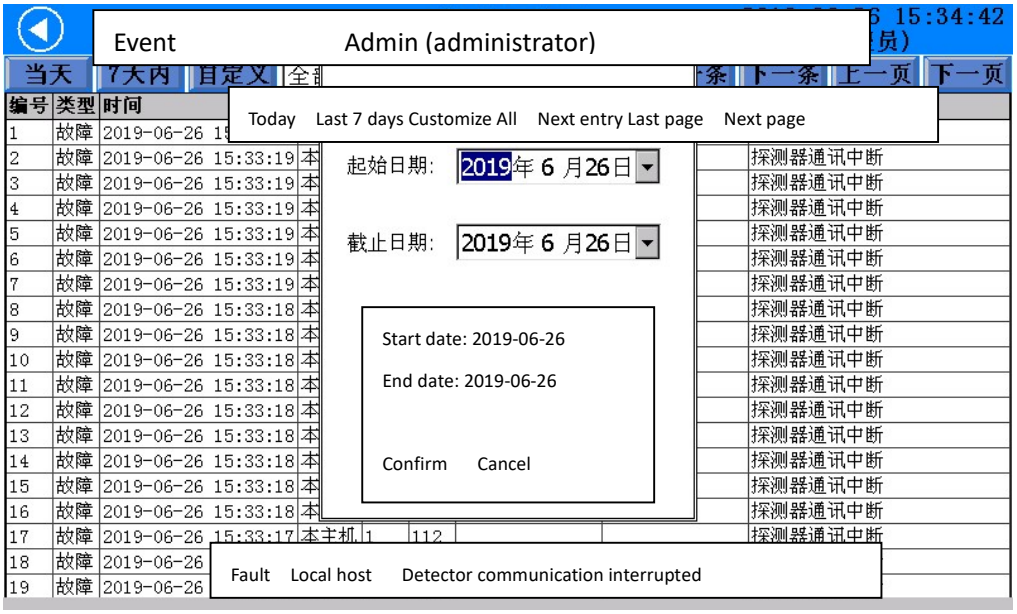

图 16 事件日期范围选择

Fig. 16 Event Time Selection

可以对所查询到的记录按种类进行筛选，方法是点击页面右上角的“故障”、“报警”、“事件”复选框。

To filter records by the record type, click Fault, Alarm and/ or Event at the upper right corner.

6.6 “自检”页面操作 Operations on the self-diagnostics screen

所有级别的用户都可进行该操作功能，主要用于设备显示器自检和对监控设备柜体面板指示灯的检测。All users can enter this screen to, particularly, run the self-diagnostics of the monitor and test LEDSs on the panel, regardless of operation authorities.

通过点击功能列表的“自检”按钮后进入如下界面。

To enter the following screen, click Self-diagnostics in the Function List.

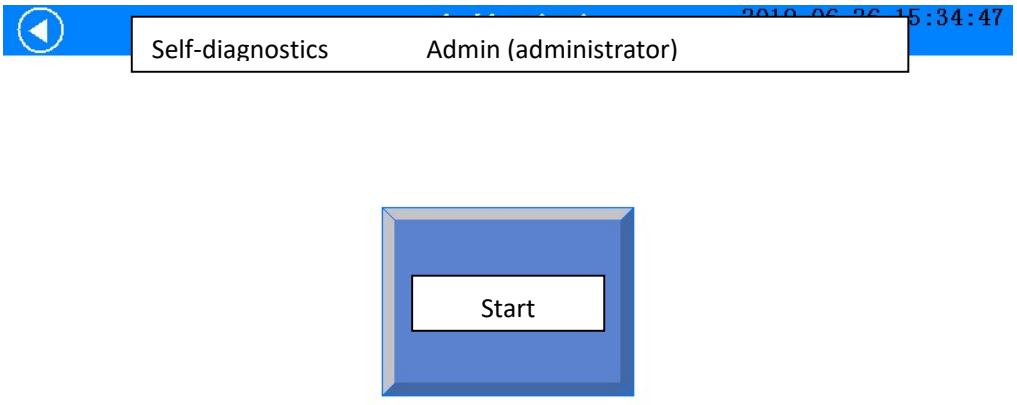

图 17 设备自检界面

Fig. 17 Self-diagnostics Screen

点击“开始自检”按钮后，系统开始自检，在自检期间，系统将不响应任何操作。自检结束后，系统会以一个统计界面显示自检结果。如图 18 所示。

Click Start to run the self-diagnostics. The monitor does not respond to any request during the self-diagnostics period. After it, the system shows the self-diagnostics results in the statistic manner. See Fig. 18.

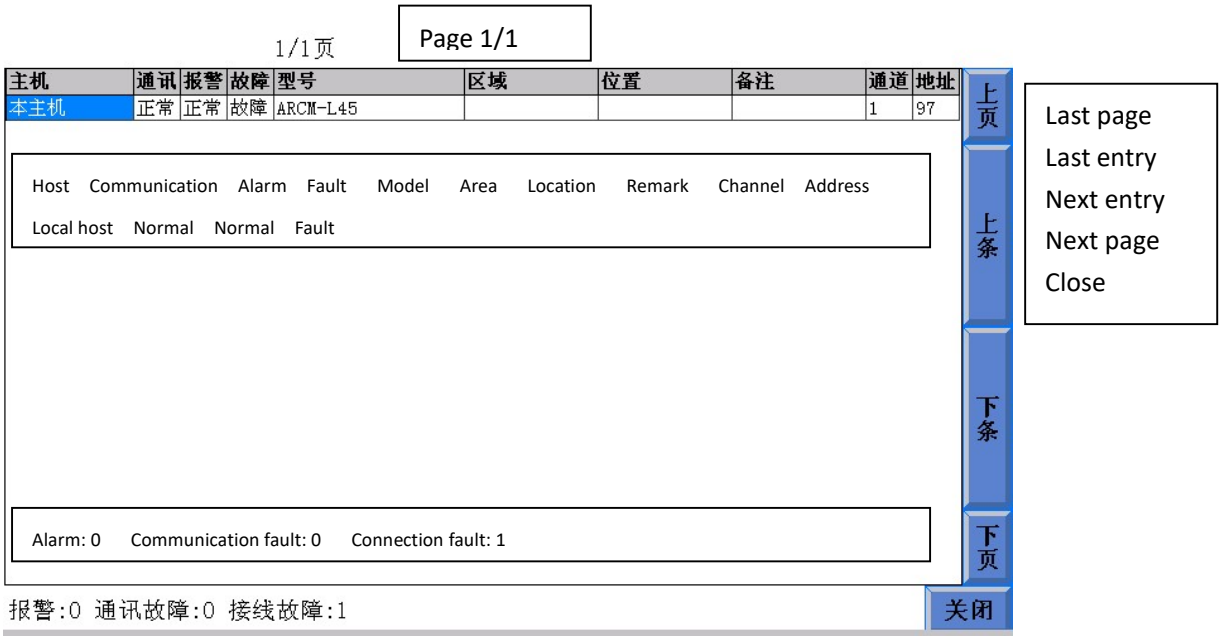

图 18 自检结果

Fig. 18 Self-diagnostics Results

6.7 “维护”页面操作 Operations on the maintenance screen

只有管理员级别可进行该操作功能，维护页面用于显示一些调试信息，主要功能是：退出监控。

Users with the administrator authority can operate on the maintenance screen. The maintenance screen shows some information on debugging. Main function: deactivate the monitor

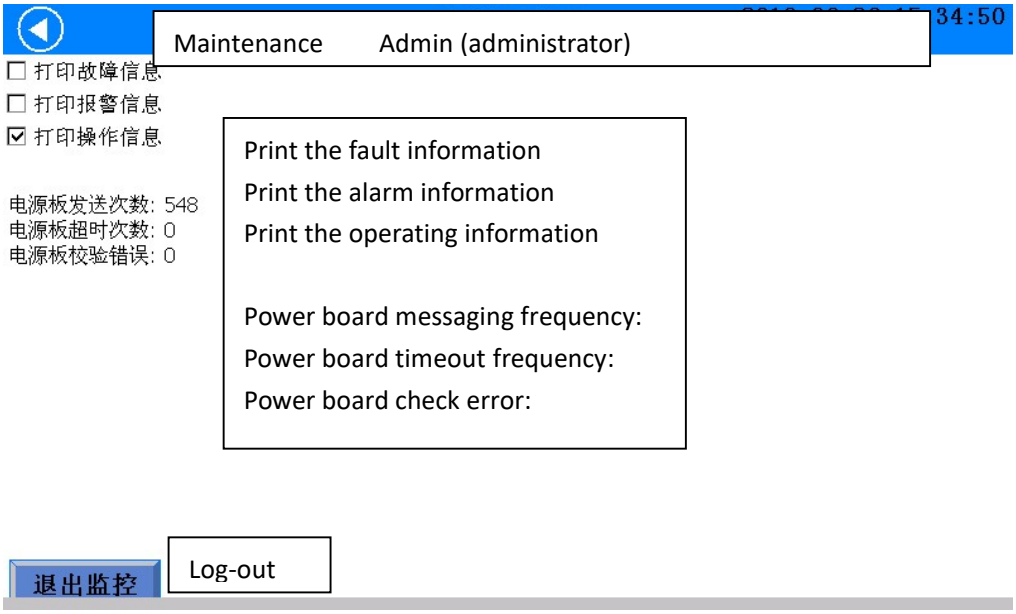

图 19

Fig. 19

点击左下角的“退出监控”按钮，会弹出用户信息确认对话框，输入密码，如果密码正确，则登录成功。

Click Log-out at the lower left corner. Enter your pin in the pop-up user information confirmation box. If the pin is correct, the log-out is successful.

7. 用户须知 Notice to users

监控设备、探测器出现故障后要及时维修，不允许长时间停止运行，如遇到值班人员无法处理的故障时，请及时通知生产厂家，监控设备主电断电后，应及时断掉备电，以防备电电池放完电。

The monitor and connected detectors shall be repaired in a timely manner in case of fault. Do not stop the system for a long time. When a fault cannot be resolved by the on-duty user, please notify the manufacturer promptly. After the mains fails, the backup battery shall also be disconnected in time in order to prevent it from full discharge.

一般故障处理:

Common troubleshooting:

Acrel-6000/B3(485)型电气火灾监控设备的常见故障及处理办法如下表所示。

The following table lists common faults and remedies of Acrel-6000/B3(485) Electrical Fire Monitor.

故障现象 Fault	故障部位 Location	可能原因 Possible cause	解决办法 Remedy
显示屏无显示 The display does not work.	主控单元 Main control unit	掉电或电源未打开 Power failure or deactivation	检查平板电脑连线并重新开启 Check the wiring of tablet computer and restart it.
系统正常工作、运行灯不亮 The system works normally with Run lighting off.	通讯板 Communication board	通讯板通讯故障 Communication fault	检查电脑与通讯板之间通讯 Check the communication between the computer and the communication board.

如出现其它现场不可解决的问题，请及时与我公司联系。

If you are unable to resolve any fault on site, please contact us promptly.

总部：安科瑞电气股份有限公司
地址：上海市嘉定区马东工业园区育绿路 253 号
电话：(86)21-69158321　69158322
传真：(86)21-69158300
服务热线：800-820-6632
邮编：201801
网址：http://www.acrel.cn
Headquarters: Acrel Co., Ltd.
Address: Yulv Road 253, Madong Industrial Park, Jiading, Shanghai
Tel.: (86)21-69158321　69158322
Fax: (86)21-69158300
Service hotline: 800-820-6632
P.C.: 201801
Website: http:// www.acrel.cn

生产基地：江苏安科瑞电器制造有限公司
厂址：江阴市南闸街道东盟工业园区东盟路 5 号
电话：(86)0510-86179967, 86179968
传真：(86)0510-86179975
邮编：214405

Production base: Jiangsu Acrel Electric Appliances Manufacturing Co., Ltd,
Address: Dongmeng Road 5, Dongmeng Industrial Park, Nanzha Street, Jiangyin City
Tel.: (86)0510-86179967, 86179968
Fax: (86)0510-86179975
P.C.: 214405

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