

Intelligent lighting control system

Overview

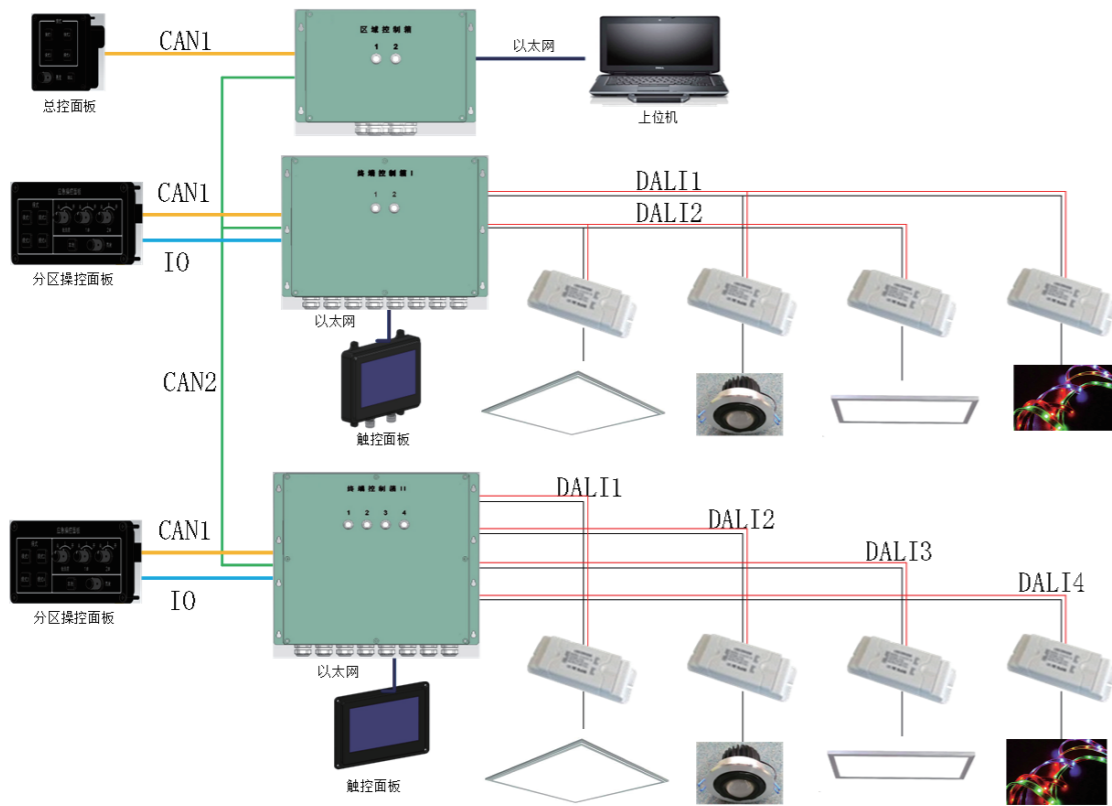
In traditional lighting control mode, the mechanical switch is usually used to directly control the on and off of the lighting power supply to realize the switch of the lamps. The lamps and manual switches are scattered and can not be conveniently and effectively managed. At the same time, there is also a low efficient energy use, security and other shortcomings.

Automatic Lighting Control through direct digital control technology to achieve lighting switch, brightness regulation. Because the automatic control adopts the "point-to-point" connection mode, the number of the decision-making control part is consistent with the number of lamps and lanterns, which not only increases the cost, but also brings difficulties for the installation.

Intelligent lighting control mode, based on field bus technology, and further combined with Ethernet technology to achieve remote, large-scale lighting control, so that the scale of the lighting system is not limited; The crew can study, work and live in a comfortable lighting atmosphere to achieve the characteristics of energy-saving, comfort and humanization by setting various lighting scenes and automatically adjusting the brightness according to the time or the illumination inside and outside the cabin, take into account the advantages of flexible control mode, convenient management mode and simple wiring mode.

The intelligent lighting control system is to optimize the comfort index of different characteristic cabin lighting, to create a comfortable environment, and to improve the work efficiency and quality of life of the crew. The lighting function of different scene can be realized by analyzing the requirement of illumination, color temperature and other parameters.

System architecture



Composition of intelligent lighting control system

System composition table

Serial number	Name	Type	Notes
1	Master Control Panel I	ZNZM-ZK-Q/I	Expandable
	Master Control Panel II	ZNZM-ZK-Q/II	
	Master Control Panel III	ZNZM-ZK-B	
2	Area Controller	ZNZM-QY	Expandable
3	Terminal Controller type I	ZNZM-ZD/I	Expandable
4	Terminal Controller type II	ZNZM-ZD/II	Expandable
5	Partition Control panel type I	ZNZM-FK-Q/I	Expandable
	Partition Control panel type II	ZNZM-FK-Q/II	
6	Touch Panel (wall mounted)	ZNZM-CK-B	
	Touch Panel (embedded)	ZNZM-CK-Q	

Product features

- Lighting design to meet the needs of human physiological rhythm
- User-defined situation mode, time adaptive mode, memory retention of the state of power loss and other humanized design
- Based on the general, modular design, easy to centralized control, unified management
- Save Energy and reduce consumption, improve lighting effect, extend the life of light source
- Reduce cable laying, reduce the cost of shipbuilding.
- Meet the requirements of GJB environment and electromagnetic compatibility; meet the requirements of Dali IEC62386 International Standard

Product function

- Can control the status of the cabin lamps, including the opening and closing of the lamps, color temperature or color, light flux, and signal feedback and display
- With single point, multi-point, area, group control, scene control, timing control, power-saving control and other functions.
- The touch panel can be used to design the scene mode of the independent lighting loop to meet the different lighting requirements of different compartments.
- The panel can select the configured scene mode to control the light switch, color temperature and luminous flux in the corresponding scene, each group scene mode does not affect each other.
- Under the emergency condition, the opening and closing of the controlled lamps in the cabin can be forced to be controlled to ensure the normal operation of the lamps.
- With external ethernet communication interface, it is convenient to access the platform network system to achieve "unified management, centralized monitoring. ". If it is connected with the lighting control system, the lighting branch in the relevant area shall be interlocked.
- It has CAN bus interface and is used to communicate with keypad panel.
- Has An ethernet communication interface for interacting with extended touch screen data.

Technical index

Master Control Panel



- Input Power (internal interface) : One channel DC 24V ($\pm 20\%$) ;
- communication interface: Can Bus, Baud rate 125kbps; profile size (height and width) : 86mm×86mm×55mm;
- weight: $\leq 1\text{kg}$;
- protection level: IP44;
- Power: $\leq 5\text{w}$.

Touch panel



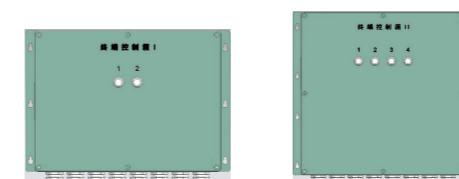
- Input Power (internal interface) : One channel DC 24V ($\pm 20\%$) ;
- communication interface: 10M/100M Adaptive Ethernet; profile size (height and width) : 150mm×210mm×45mm;
- protection level: IP23;
- Power: $\leq 10\text{w}$.

Partition control panel



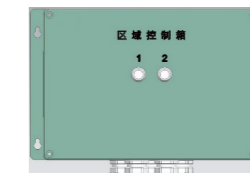
- communication interface: Can Bus, Baud rate 125kbps;
- With 8- channel passive switch output interface; profile size (height and width) : 86mm×172mm×55mm;
- weight: $\leq 1\text{kg}$;
- protection level: IP44;
- Power: $\leq 5\text{w}$.

Terminal Controller



- Input Power: AC220V ($\pm 10\%$) , 50Hz ($\pm 5\%$) ;
- Output Power: One channel DC 24V ($\pm 20\%$) ;
- Communication Interface: 2 Can bus interface, 2/4 Dali Bus Interface;
- profile size (H×W×D)):
- Type I: 300mm×400mm×160mm;
- Type II: 400mm×400mm×210mm ;
- Output Power: One channel DC 24V ($\pm 20\%$) ;
- Type I: $\leq 30\text{kg}$;
- Type II: $\leq 45\text{kg}$;
- protection level: IP44;
- Power: 4kW/8kW.

Area Controller



- Input Power: AC220V ($\pm 10\%$) , 50Hz ($\pm 5\%$) ;
- DC220V ($\pm 20\%$) ;
- Output Power: One channel DC 24V ($\pm 20\%$) ;
- Communication interface: 2-channel Ethernet interface, 2-channel CAN bus interface;
- profilesize(H×W×D): 230mm×330mm×160mm;
- weight: $\leq 15\text{kg}$;
- protection level: IP44;
- Power: $\leq 30\text{w}$.

► software interface

