Intelligent column lamp series
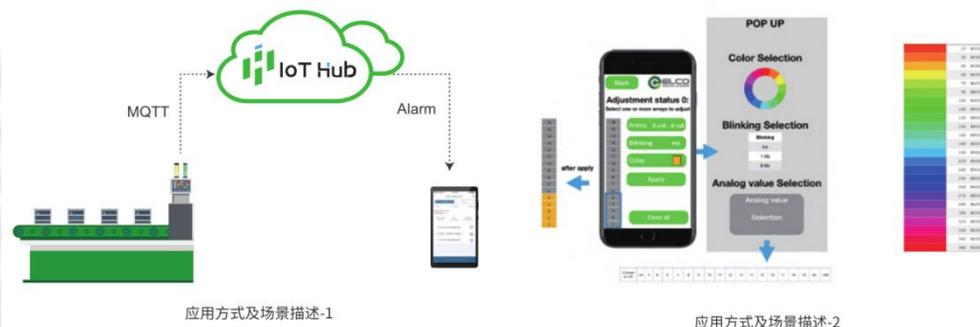
Product specification

● Product description

ELCO Internet of Things intelligent column lamp series terminal is a 60mm signal indicating product integrating IoT technology. The light source part adopts modular LED indicator lamp, which is developed based on embedded technology. It can be networked through communication modes such as 4G and WiFi, and the protection level reaches IP67 (including M12 interface). It can identify the digital and analog quantities provided by field devices, make intelligent instructions, and quickly upload data to the cloud, so as to fully meet the needs of customers for intelligent indication and data acquisition.

This product supports the deep application expansion based on IoTHub and Yike Internet of Things platform, supports the software to define the color of status signals, has the characteristics of uniform and bright light source on site indication, is applied to the collection and monitoring of production line equipment, supports the expansion of third-party system data interface services, including various industrial field systems (Andon, PTL, etc.), realizes the independent collection and uploading of equipment data, and has the function of intelligent indication and guidance.

● Application framework

应用方式及场景描述-1

应用方式及场景描述-2

LS60 series network intelligent column lamp products intelligently customize the indication of equipment status through digital quantity and analog quantity provided by the equipment, and then upload the data to IoTHub or other system platforms through MQTT protocol to complete the collection and processing of equipment data on the application site, so as to meet the requirements of users for the collection and monitoring of relevant data. With the standard version of Bluetooth communication management applet, users can freely complete product parameter configuration,

color indication, etc., and realize the configuration management function of cloud+local complementarity. Typical application scenarios include various types of Andon, PTL systems, industrial Internet of Things, industrial Internet systems, etc. Analog signals support 0-20mA signal types, and digital signals support the maximum level of 24V types, so as to realize intelligent indication and equipment data acquisition for equipment working state monitoring, alarm state monitoring, standby state and manual state.

LS60 lamp post terminal can be used to monitor all kinds of machines, wires, equipment and other equipment, and realize alarm or signal display of equipment failure, operation quality, material pulling and other scenes in the automatic process. It is convenient for on-site point indication, and can cooperate with IoT platform and application to realize system interaction and application of related information, help equipment manufacturers to provide IoT supporting products and solutions, help system integrators to provide equipment layer access terminals or edge layer acquisition and monitoring terminal products and solutions, and help end users to realize IoT capacity building.

- **product function**

1. Hardware configuration

➢ Embedded design, the product is safe and stable, and can work continuously for 7 * 24 hours;

➢ Support Yike standard 8-core M12 interface design;

➢ Support 16*3 RGB tri-color status lights and 16*3 monochrome status lights, and intelligently present 16 different colors including red, green and blue;

➢ Choose to configure 4G and WiFi communication versions;

➢ BLE communication module is standard, and near-field quick connection equipment is configured;

➢ Support digital+analog input interface, with a total of 1 analog and 4 digital, to meet rich scene requirements;

2, data acquisition, instructions

➢ It integrates the functions of digital quantity, analog data acquisition and intelligent indication.

➢ Analog acquisition attribute: current: 0 ~ 20ma;

➢ Digital quantity acquisition attributes: voltage: 0, 24V；；

➢ Support more than ten or even dozens of color indications such as crimson, dark green, dark blue, dark orange, dark yellow, dark cyan, deep purple, light red, light green, light blue, light orange, light yellow, light cyan and light purple;

➢ Optical service life is not less than 50000 hours;

➢ According to the intelligent instructions of customer customization requirements, different colors are used to represent different States;

3. Supporting software

➢ The factory comes standard with Yike IoTHub platform and Yike Internet of Things platform connection protocol, supporting third-party protocol expansion and application development;

➢ Support platform to set data reporting method: active reporting;

➢ Support remote FOTA upgrade;

➢ Support operation, alarm, equipment, data and other log generation and export according to the selected time;

➢ Support software to customize the setting of status indication rules;

4. Communication mode

➢ 4G, WiFi communication mode;

➢ With network diagnosis function, it supports disconnected reconnection and continuous transmission;

➢ Standard BLE communication mode;

5. Safety certification
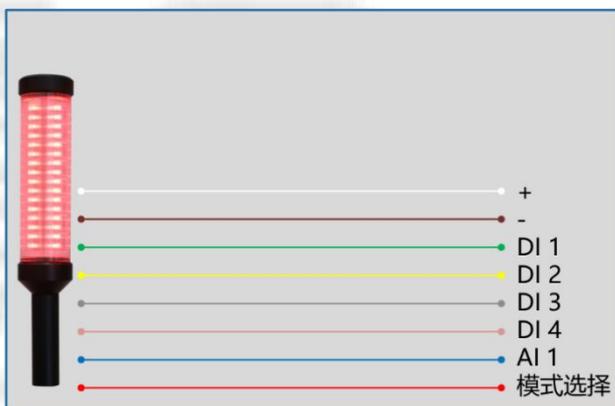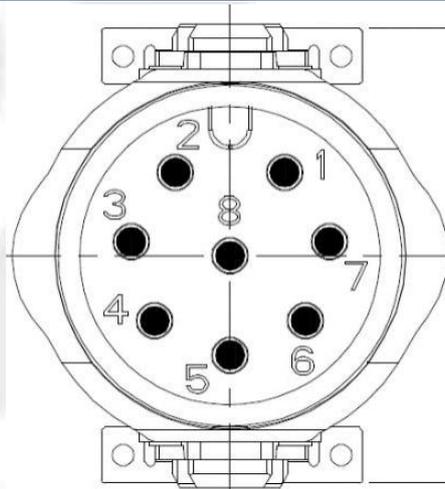
➢ Have CE test certification of product performance;

● **Product specification**

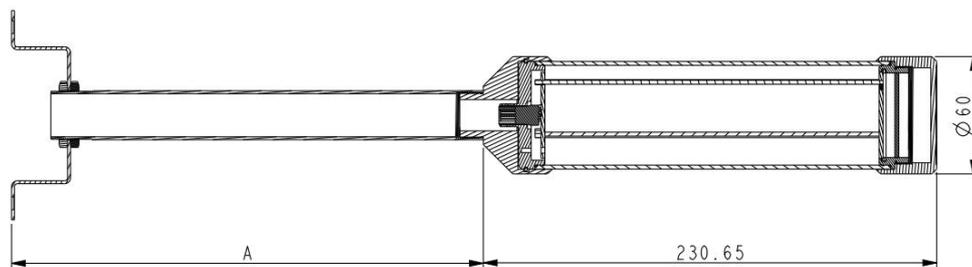| Interface parameters	
Power supply terminal	1-way DC10-30V with typical power supply of DC24V. Average 175 mA@24VDC/435mA@24VDC, Support overcurrent and reverse connection protection
digital quantity	4-channel input Max DC24V
analog quantity	1 channel input 0~24mA
Indicator light	Built-in (power supply, 4G network signal, terminal running status)
Network parameter	
Wireless communication standard 1 (optional)	4G
Wireless communication standard 2 (optional)	WiFi
Wireless communication standard 4 (standard)	BLE
environmental parameter	
Working temperature	-30℃~+75℃
Storage temperature	-40℃~+85℃
relative humidity	5~95% RH has no condensation.

● **Pin definition**

serial number	IO pin	explain	describe
one	VCC	DC24V	Power input
2	GND	Public land	Analog ground, digital ground and power ground
three	DI1	Digital signal input 1	PNP
four	DI2	Digital signal input 2	PNP
five	DI3	Digital signal input 3	PNP
six	DI4	Digital signal input 4	PNP
seven	AI1	Analog signal input 1	0-20mA
eight	Mode_Select	Enabling control	

(For connector selection, refer to the specific product signals of Yike Connection System, and refer to series CO12.8 and CBO12.8.)

● **Product interface and size**

- **Product matching configuration tool**