



程鴻科技
SOWIN

CCT Color Temperature Sensor (485 Channel)



User Manual

VERSION: CH-C201-S -01

CHENG HONG E-TECH. CO., LTD

CH-C201-CCT Auto-Sensor

I: Equipment Introduction

The CH-C201-CCT Color Temperature Sensor is independently researched and developed by our company. According to the Street Lighting & Tunnel Lighting environment, Factory & Warehouse daylight intensity, it cooperates with the intelligent lighting centralized controller **Auto-change the Color Temperature** of the lamps according to the changes in ambient light, to achieve intelligent lighting management and controlling.

Traditional municipal street lighting, tunnel lighting, industrial lighting such as factory&warehouse lighting Switches Controlling Modes are generally divided into Loop Controlling, Sunrise & Sunset Controlling, the corresponding fixtures Loop Controlling in different time periods. Although above controlling modes are mature and widely used, there are still many problems, such as: it can't be automatically adjust the Color Temperature at rainy, sandy weather, and the adjustment range is fixed (only loop switch); moreover, it is impossible to know the environmental Color Temperature of the project site in time. In response to these problems, our company launched the Color Temperature Collection Sensor which integrates ambient light collection, data processing, and data communication.

The device adopts traditional industrial bus RS-485 communication technology, the communication distance can reach 2000 meters without repeater, the actual measurement in the tunnel can reach 1,000 meters; 7 levels of gateway can be set in the scene, each level of gateway is calculated as 1 km, the long distance can be up to 7000 meters; the device capacity in the gateway is up to 255 units.

II: Electrical Specification

Item		Rating
Working Voltage		AC 220V \pm 20%
Working Frequency		50Hz
Static Power		<2W
Color Temperature Collection Range		2000K-6900K
Insulation	L/N-PE	1.75KV
	L/N-485	3.5KV
Power Surge (L-N L-PE N-PE)		\pm 4KV
Static Electricity		\pm 8KV
Working Temperature		-25 $^{\circ}$ C \sim +60 $^{\circ}$ C
Maximum Operating Temperature		-40 $^{\circ}$ C \sim +70 $^{\circ}$ C
Storage and Transport Tempt.		-45 $^{\circ}$ C \sim +70 $^{\circ}$ C
Storage & working humidity range		\leq 85%

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III: Functions Introduction

1. Ambient light collection function

The industrial-grade high-precision photoelectric sensor collects ambient light or ambient reflected light, and the internal high-speed data calculation unit performs data conversion according to the algorithm, and uses a unique fault-tolerant mechanism to ensure the smoothness and effectiveness of the data.

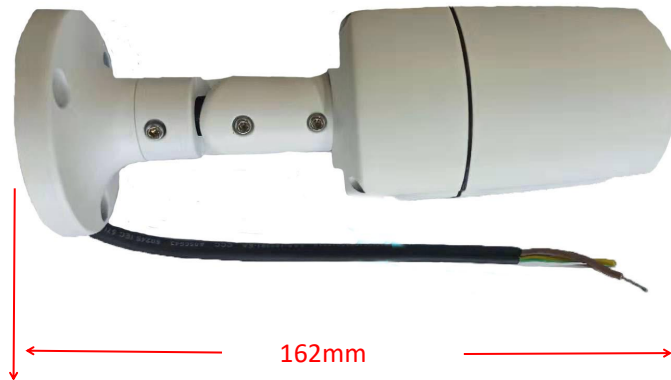
2. Communication Function

Through the RS485 communication channel, data exchange and parameter setting command reception between the equipment and the intelligent lighting centralize controller and computer are realized. The device capacity in the gateway are 255 units.

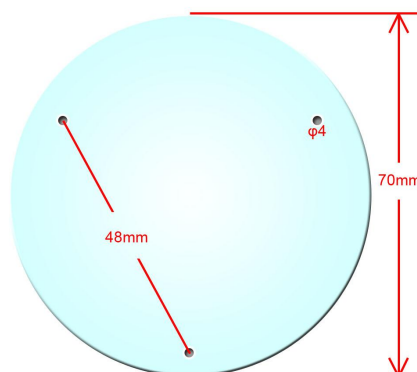
IV: DEMENSIONS & INSTALLING

1. Dimensions

70mm*70mm*162mm



2. Installation Diagram



CH-C201-CCT Auto-Sensor

2). Multi-function mounting plate fixed

Multifunctional mounting plate and supporting steel cable tie (maximum diameter \varnothing 200mm)

V: Wiring Diagram



N/M	Name	Spec.
1	ACL-IN (Red)	AC 220V L
2	ACN-IN (Black)	AC 220V Neutral Input
3	PE (Yellow/Green)	Ground
4	A (Brown)	485A
4	B (Blue)	485B