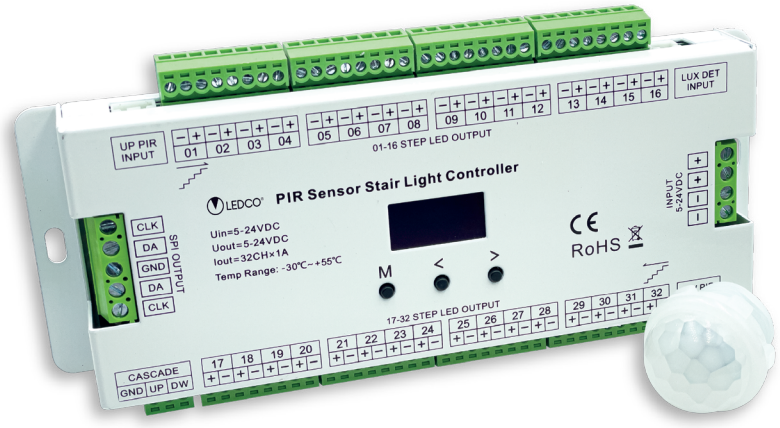
LEDCO®

CTS100 - Centralina Scale Sequenziale

CTS100 – Sequential Staircase Control Unit



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CTS100 - Centralina Scale Sequenziale
CTS100 - Sequential Staircase Control Unit

Sensore PIR / Sensore di luce diurna / Max 32 passi / Compatibile con 28 tipi di chip / Max 960 pixel
PIR Sensor / Daylight Sensor / Max 32 steps / Compatible with 28 chip types / Max 960 pixels

Caratteristiche
Features

- The Staircase Control Unit is equipped with a proximity sensor.
- 32 Channel Constant Voltage Output Low Voltage LED Strip, Max. Current 1A per channel.
- 2 groups with the same SPI(TTL) signal output, drive 28 kinds of IC digital RGB LED strips,
  You can set the IC type and R/G/B order.
  Compatible ICs: TM1804, TM1809, TM1812, UCS1903, UCS1909, UCS1912, UCS2903, UCS2909, UCS2912, WS2811, WS2812, TM1829, TM1914A, GW6205, GS8206,GS8208,LPD6803, LPD1101, D705, UCS6909, UCS6912, LPD8803, LPD8806, WS2801, WS2803, P9813, SK9822, SM16703P.
- Simple operation with OLED display and 3 buttons.
- Four selectable work lighting modes.
- Two stair light controllers can be connected in cascade.
- Built-in multiple color mode, speed and brightness adjustable from 1 to 8 degrees.
- The pressure switch can be used as an induction signal input.
- Quick self-test function.
- Any damaged LED channels in the 32 channels can be disabled.

Garanzia
Warranty

5 anni / 5 years

Packaging
Packaging

Dimensioni / Dimensions:	L 205 x W130 x H 45 mm
Peso / Weight:	0,52 Kg

Parametri tecnici
Tecnhical parameters

INPUT & OUTPUT

Voltaggio INPUT / INPUT Voltage:	5-24V DC
Voltaggio OUTPUT / OUTPUT Voltage:	32 x (5-24V DC)
Corrente OUTPUT / OUTPUT Current:	32ch, 1A/ch
Potenza OUTPUT / OUTPUT Power:	32 x (5-24V DC)
Tipo OUTPUT / OUTPUT Type:	Voltaggio Costante + SPI (TTL) / Constant Voltage + SPI (TTL)

Sicurezza ed EMC / Safety and EMC

EMC / EMC:	ETSI EN 301 489-1 V2.2.3 - ETSI EN 301 489-17 V3.2.4
Norma di sicurezza (LVD) / Safety standard (LVD):	EN 62368-1:2020+A11:2020
Certificazione / Certification:	CE,EMC,LVD

Dati Sensore
Sensor Data

Campo sensibile / Sensitive field:	<3m
Sensibilità campo / Sensitivity angle:	120

Dati Funzionamento
Operation Data

Temperatura lavoro / Operation temperature:	-30°C / +55°C
Temperatura case / Case temperature:	MAX +85°C
Grado di protezione IP / IP rating:	IP20

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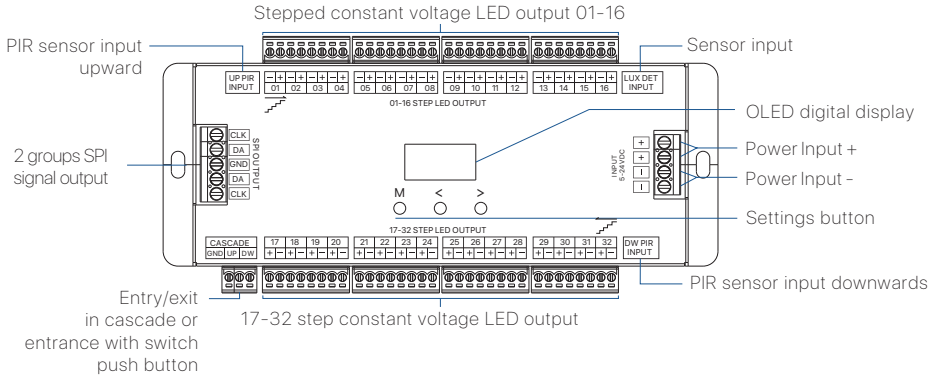
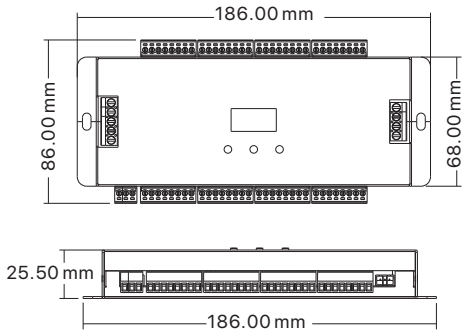
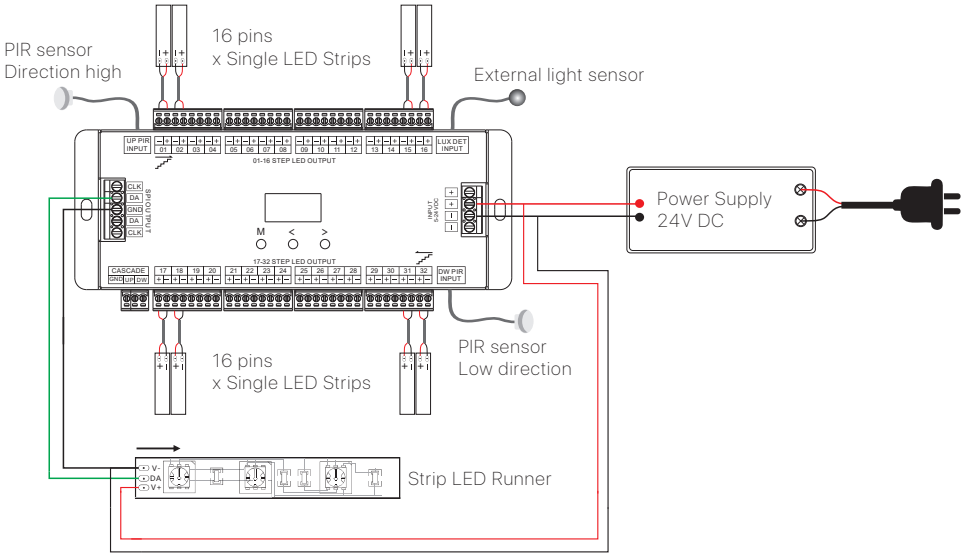
Struttura ed Installazioni
Structures and Installations





Schema di Collegamento
Wiring Diagram



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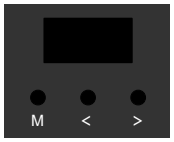
Schermo OLED e Operazioni chiave

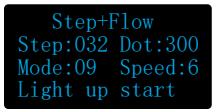
OLED screen and key operations

1. Long press the M key for 2 seconds, enter the system parameter setting state, to switch four working light modes, set the light off mode, push switch input function, chip type and RGB order or daylight sensor threshold.
2. Short press the M key to enter the parameter setting status of the current work light mode.
3. In parameter setting state, short press M key to change multiple parameters, press < or > key for parameter adjustment.
4. Long press the M key or wait 15 seconds to exit the parameter setting state.
5. Long press M key and > for 2 seconds, display "Lighting Test" on line 4 of OLED screen, start the direction induction light test.
6. Long press M and < key for 2 seconds, display "Light down test" on line 4 of OLED screen, start the down direction induction light test.
7. Long press the < and > key for 2 seconds, restore the factory default parameters, automatically switch to the language interface, press < or > to switch two languages (Chinese and English), press the M key to exit the interface of the language.
8. Long press <, > and M for 2 seconds, enter the 32-channel LED mute setting interface.
9. When working in White Step/Color Flow/Color Step/White Step + Color Flow Mode, the color mode name is displayed on 4 lines.
10. When the controller is in induction state, the indication of inductive signal input ("Light up start" and "Light down start") is displayed first, then the state of
11. turning the light on/off.
12. If the current detected LUX value is greater than the daylight sensor threshold, display "Light off" or "Light off" on the fourth line.



Language interface

Light status ON/OFF
on 4 lines



Induction indication
on 4 lines

Impostazione dei parametri di sistema

System parameters setting

Out: Switch four working light modes.
White_Step: Constant voltage multiple LED strip mode only.
Color_Flow: Only 1 or 2 modes LED strip light with digital pixels in line.
Color_Step: Z-shaped multiple digital pixel LED strip light mode only.
Step+Flow: Multiple constant voltage LED strip + 1 or 2 modes LED strip light with straight line digital pixels.

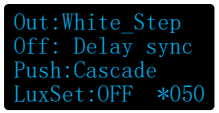
Chip: Select a chip type from ten options (shown in the table below), one of these from 6 RGB orders (RGB, RBG, GRB, GBR, BRG, BGR). The parameters are valid only for working modes with SPI signal output.

Def RGB: RGB hexadecimal value for the user-defined color.
The parameters are valid only for working modes with SPI signal output.

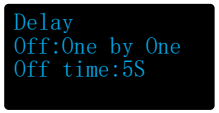
LuxSet: Daylight sensor threshold (10, 30, 50, 100, 150, 200lux, OFF),
with sufficient ambient light, the PIR sensor does not turn on the light.
The daylight sensor is turned off by default. The digital value after * is the currently detected LUX value.

OFF: Set 2 kinds of lights off and delay time at the end of detection.
Delay sync: The lights are synchronized and turned off with a delay time.
One by One: The lights turn off sequentially from extremity to head with a delay time.
Delay time: 5s, 10s, 15s, 20s, 30s, 1min, 3min, 5min, 10min, cancel.
Setting cancellation means not turning off the light.

Push: Switch two kinds of push switch input modes.
Cascade: Push button switch input works as
cascade input/output or simulated PIR inductive input.
All-on: Push operation will turn on all lights and turn off synchronously after the delay time.



Parameter interface
mode system
White_Step



Shutdown method e
time setting
of delay

Parameter interface
of White_Step + system
Color_Flow mode

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Disabilitazione uscita canale LED
LED channel output disable setup

```
Step LED Output
1110111111111111
1111111111111111
ch:04 1:Y  0:N
```

ch: Indicates the set channel
1: Enable the channel
0: Disable the channel

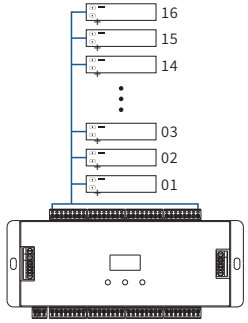
For example: If the fourth channel output is damaged,
long press the M key, < and > to enter the LED deactivation interface,
then change the channel from 1 (on) to 0 (off) of channel (04).
So the damaged channel will be ignored.

Modalità White Step
(Modalità striscia LED a tensione costante)

```
  White_Step
Step:032 Bri:8
Mode:01  Speed:6
ON one by one
```

White mode list:
01: ON one by one
02: All off, 5 on
03: All on, 1 off
04: All on

Step: Total number of passes, 008-032.
Mode: White mode number, 01-04.
Bri: Brightness level, 1-8 | 8 is the brightest level.
Speed: Speed grade, 1-8 | 8 is the fastest speed.



Modalità Color Flow
(Modalità luce striscia LED pixel digitale in linea retta)

```
  Color_Flow
Dot: 300 Bri:8
Mode:09  Speed:6
Color queue
```

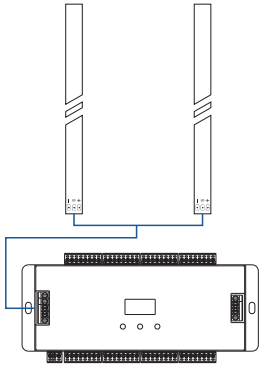
Dot:
Number of pixel points,
032-960.

Mode:
Color mode number,
01-12.

Bri:
Brightness level,
1-8 | 8 is the brightest level.

Speed:
Speed grade,
1-8 | 8 is the fastest speed.

Color mode list:
01: Red
02: Orange
03: Yellow
04: Green
05: Cyan
06: Blue
07: Purple
08: White
09: Color queue (7 colors + White)
10: Color tracking (7 colors + White)
11: Color fade (6 color flow)
12: Rxxx Gxxx Bxxx (User defined)



Modalità Color Step
(Modalità luce striscia LED pixel digitale a forma di Z)

```
  Color Step
Step:030  Dot:010
Mode:09   Speed:6
Color queue
```

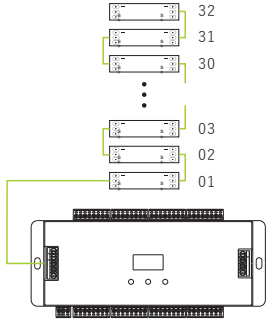
Step:
Total number of passes, 008-160.

Dot:
Number of pixel points
of each passage, 002-120.
Step number x stitch number
must be < 960.

Mode:
Color mode number, 01-12.

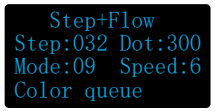
Speed:
Speed grade,
1-8 | 8 is the fastest speed.

Color mode list:
01: Red
02: Orange
03: Yellow
04: Green
05: Cyan
06: Blue
07: Purple
08: White
09: Color queue (7 colors + White)
10: Color tracking (7 colors + White)
11: Color fade (6 color flow)
12: Rxxx Gxxx Bxxx (User defined)



Modalità White Step + Color Flow

(Striscia LED a tensione costante + Modalità luce striscia LED pixel digitale in linea retta)



Step:
Total number of steps,
008-032.

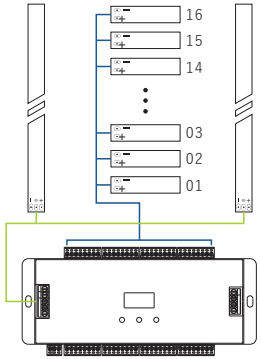
Dot:
Number of pixel points,
032-960.

Mode:
Color mode number,
01-12.
The number mode is for only
the straight line digital pixel LED strip.
The mode for constant voltage LED strips
is solved one by one.

Speed:
Speed grade,
1-8 | 8 is the fastest speed.

Color mode list:

01: Red
02: Orange
03: Yellow
04: Green
05: Cyan
06: Blue
07: Purple
08: White
09: Color queue
(7 colors + White)
10: Color tracking
(7 colors + White)
11: Color fade
(6 color flow)
12: Rxxx Gxxx Bxxx
(User defined)



Cascade connection of 2 stair control units

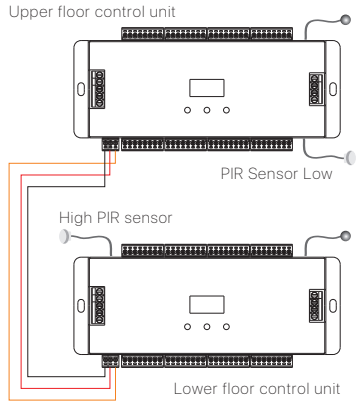
The downstairs light controller needs to be connected to the high PIR sensor and the daylight sensor.

The upstairs light controller needs to be connected to the low PIR sensor and the daylight sensor.

The two stair control units connect the UP/DW line in cascade.

Once the checking process is finished of the induction light, the light will turn off automatically after 10 seconds.

For speed level 1-8 (cascade input), the shutdown delay time is respectively of 90/80/70/60/50/40/30/20 seconds.



Two push switches like signal input connection induction up/down

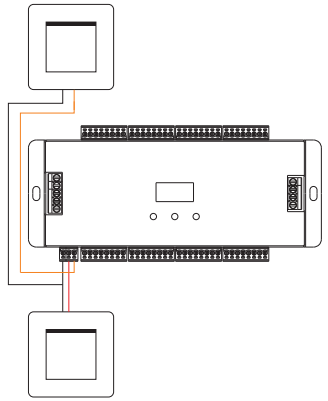
The Low Push must be connected to the UP port in cascade of the stair control unit.

The High Push must be connected to the DW port in cascade of the stair control unit.

Push operation will ignore the setting of the daylight sensor threshold.

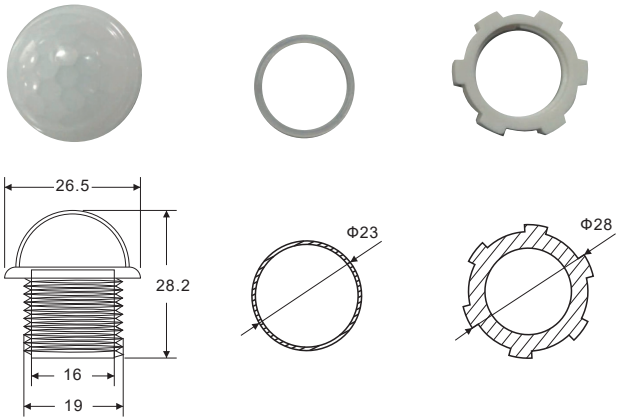
When the button switch function is set as cascade input/output, the Push will start the induction light control process.

When the push switch function is set as button input, the Push will turn on all the light and the light will turn off automatically after 20 seconds.

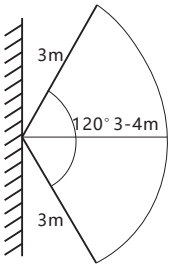


For speed levels 1-8, the shutdown delay time is 90/80/70/60/50/40/30/20 s respectively.

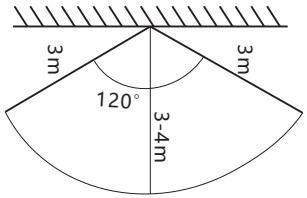
Installation of the PIR Sensor



Wall mounting diagram



Ceiling mounting diagram



Notice for installing PIR sensor:

1. If the sensor is exposed to direct sunlight, an interference signal will be introduced.
2. The sensor should be installed in a dry environment and kept away from windows, air conditioners and fans.
3. Make sure the sensor is away from heat sources, such as countertops, kitchen appliances that generate hot steam, walls and windows exposed to direct sunlight, air conditioners, heaters, refrigerators, stoves, etc.
4. We recommend a wall installation height of 1 to 1.5 meters and a ceiling mounting height of no more than 3 meters.
5. There should be no shelter (screens, furniture, large bonsai) within the detection range.