

TRONIX

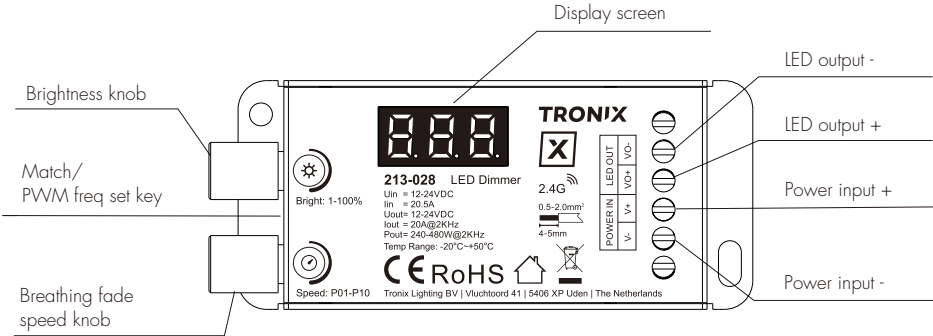
213-028

LED Dimmer



RF

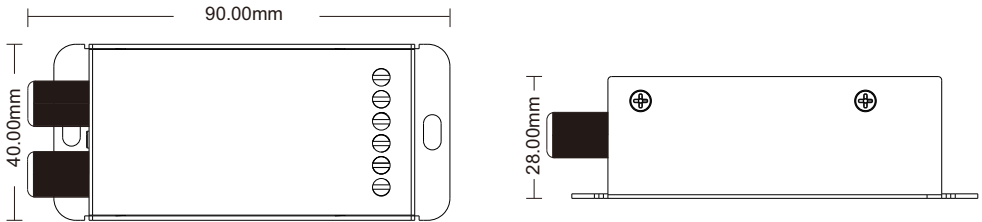
Mechanical Structures and Installations



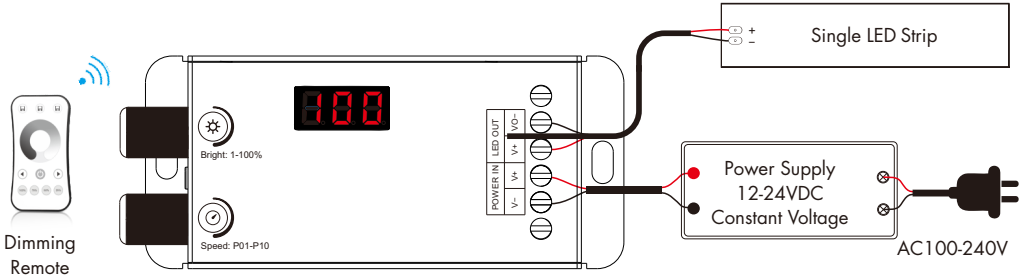
CE RoHS

Features

- Dual knob constant voltage LED dimmer with digital display.
- Rotate knob to change brightness and breathing fade speed.
- Match with RF 2.4G single zone or multiple zone dimming remote control optional.
- 0-100% dimming smoothly without any flash.
- High load current up to 20A.
- PWM frequency 250Hz, 500Hz, 1KHz, 2KHz, 4KHz, 8kHz or 16kHz selectable.
- Over-heat /Short circuit protection, recover automatically.



Wiring Diagram



Technical Parameters

Input and Output		Dimming Data		Safety and EMC	
Input voltage	12-24VDC	Input signal	Knob + RF 2.4GHz	EMC standard	EN IEC 55015/ EN IEC 61547 ETSI EN 301 489-1/-3
Input current	20.5A	Control distance	30m(Barrier-free space)	Safety standard	EN 61347-1/-2
Output voltage	12-24VDC	Dimming gray scale	4096 (2^12) level	Radio equipment	ETSI EN 300 440
Output current	20A@250/500/2KHz 15A@4K/8KHz 10A@16KHz	Dimming range	0-100%	Certification	CE RoHS
Output power	240-480W@250/500/2KHz 180-360W@4K/8KHz 144-288W@16KHz	Dimming curve	logarithm		
		PWM frequency	2KHz (default)		
Environment		Warranty & Protection		Package	
Operation temperature	Ta: -20°C ~ +50°C	Warranty	5 years	Size	L100 x W46 x H38mm
Case temperature (Max.)	Tc: +85°C	Protection	Reverse polarity, Over-heat, Short circuit	Gross weight	0.092kg

Knob Function



Bright: 1-100%

Brightness knob:
rotate knob to adjust 1-100% brightness.
When turn off light, display OFF.



Brightness 100%



Speed: P01-P10

Speed knob:
rotate knob to adjust breathing fade speed, 10 level,
display P01-P10, P10 is the fastest speed.



Breathing fade mode,
fastest speed

Breathing fade mode speed:

P01	60s cycle = 30s fadein, without pause, 30s fadeout	P06	8s cycle = 3s fadein, 2s pause, 3s fadeout
P02	30s cycle = 15s fadein, without pause, 15s fadeout	P07	5s cycle = 2s fadein, 1s pause, 2s fadeout
P03	20s cycle = 10s fadein, without pause, 10s fadeout	P08	3s cycle = 1.5s fadein, without pause, 1.5s fadeout
P04	14s cycle = 5s fadein, 4s pause, 5s fadeout	P09	2s cycle = 1s fadein, without pause, 1s fadeout
P05	11s cycle = 4s fadein, 3s pause, 4s fadeout	P10	1s cycle = 0.5s fadein, without pause, 0.5s fadeout

Note:

- 1. When adjusting the brightness by brightness knob or remote control will exit the breathing fade mode.
- 2. When display OLA, overload alarm. When display OHA, overheat alarm.

PWM Frequency Setting

- Push twice Match key fastly, enter PWM frequency setting state, then rotary speed knob to select seven PWM frequency: 250Hz(F02), 500Hz(F05), 1KHz(F10), 2KHz(F20), 4KHz(F40), 8KHz(F80) or 16KHz(F16). Rotary brightness knob or timeout 10 seconds, automatically exit PWM frequency setting state.
- Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).
- Default PWM frequency: 2KHz.

Match Remote Control (Optional)

End user can choose the suitable match/delete ways. Two options are offered for selection:

Use Match key

Match:
Short press match key, display "RLS", immediately press on/off key (single zone remote) or zone key (multiple zone remote) on the remote. Display"RLO" means match is successful.

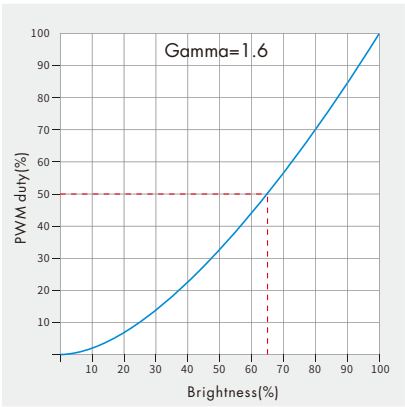
Delete:
Long press match key for 5s to delete all match. Display"RLE" means all matched remotes were deleted.

Use Power Restart

Match:
Switch off the power, then switch on power, repeat again. Immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 3 times on the remote. Display "RLO" means match is successful.

Delete:
Switch off the power, then switch on power, repeat again. Immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 5 times on the remote. Display "RLE" means all matched remotes were deleted.

Dimming Curve



Installation Precautions

1. The products shall not be stacked, the distance should be $\geq 20\text{cm}$, so as not to affect lifespan of the products due to poor heat dissipation.
2. The product shall not be installed close to the switching power supply with an interval of $\geq 20\text{cm}$ to avoid radiation interference of the switching power supply.
3. The installation height shall be $\geq 1\text{m}$ from the floor to avoid shortening the remote control distance due to too weak reception signal.
4. The products are not allowed to be close to or covered by metal objects, with an interval of $\geq 20\text{cm}$ to avoid signal attenuation and shorten the remote distance.
5. Avoid installation at the corner of the wall or the corner of the beam, with an interval of $\geq 20\text{cm}$ to avoid signal interference.