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AL-SML-DR2-70CCT

CC / CV LED Driver
DALI Control

CCT operation (DT8) or
2x Fixed outputs (DT6)

[Product Description - AL-SML-DR2-70CCT](#)

This structured media device fits into the Leviton 47605 panel and provides Class 2, UL 1310 dimmable outputs for up to 12 CC LEDs or 60 ft of CCT Strip Leds. Max output is 1500 mA, overloading is not possible. Internal 70 Watt power supply operates from 100vac to 240vac, and has daisy chained C13/C14 connectors.

Voltage Readback

The Real Time voltage on the LEDs can be read back via the DALI bus for testing applications.

sml Format

This device is a member of the ATX LED sml family for Structured Media Panels. This allows 8 devices in a 14x14 panel.

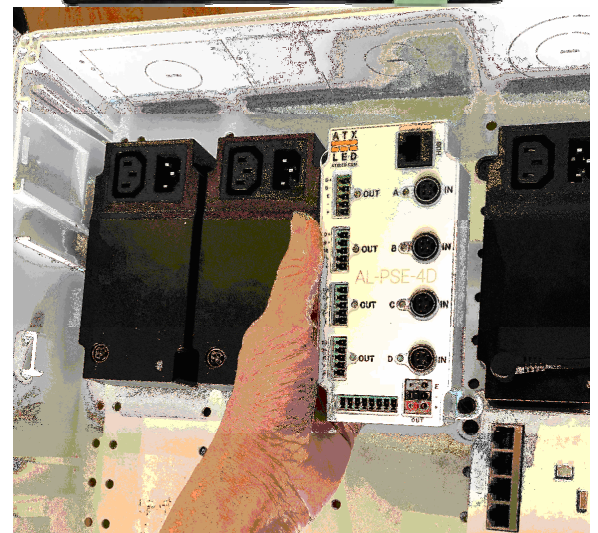
DT6 or DT8 mode

Operates in IEC 62386 DT6 or DT8 modes. User selectable. DT6 offers two independent outputs with 2 unique Short Addresses. DT8 offers one Short Address with Color Tuning.

CCT Fade rates

Slow and continuous fade from one CCT to another can be set for up to 2560 seconds.

6/6/2025



AL-SML-DR2 -70CCT

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Specifications

Power source	C13/C14 120vac 4 wires each. KF12EKNG-3.81-4P
LED Output Connector	Either 4 wire CC or 3 wire CV Led can be used. For 3 wire operation, select either + output for the common Anode
Control Method (DALI)	DALI IEC S62386, Local or via the ATX Hub or Matter 2 DALI 1 or 2 addresses,
Control Method (Kinetic)	Battery Free remotes can On/Off/Dim/Tune the attached lights (see AL-SML-DR2K-70CCT)
Control Method (Cloud)	Wifi with hub, or Zigbee via a Hub, can be used for Cloud control (see AL-SML-DR2K-70CCT)
LED Outputs	256:1 dimming ratio, CCR method
Current Output	0 to 1500mA total for both channels, CCR dimming, constant current. max current set by the ATX LED Hub
Voltage Output	9 to 51 vdc,
IEC 62386* interface	2 lines per output allow for DALI data pass thru KF12EKNG-3.5-4P
Input voltage range	100-240vac, 50/60 Hz
Voltage measurement	The voltage of each output can be read back via the control bus
Operating Temperature	0°C ~ 30°C
Size	70 mm x 147mm x 30mm plus 2x 10mm interleaving tabs on the 70mm side
Horizontal between tabs	76.2mm
Vertical between tabs	127mm
Hot Swap	Yes – can unplug and connect any connector live
Mounting Kit	Leviton 47615-NYL push pins

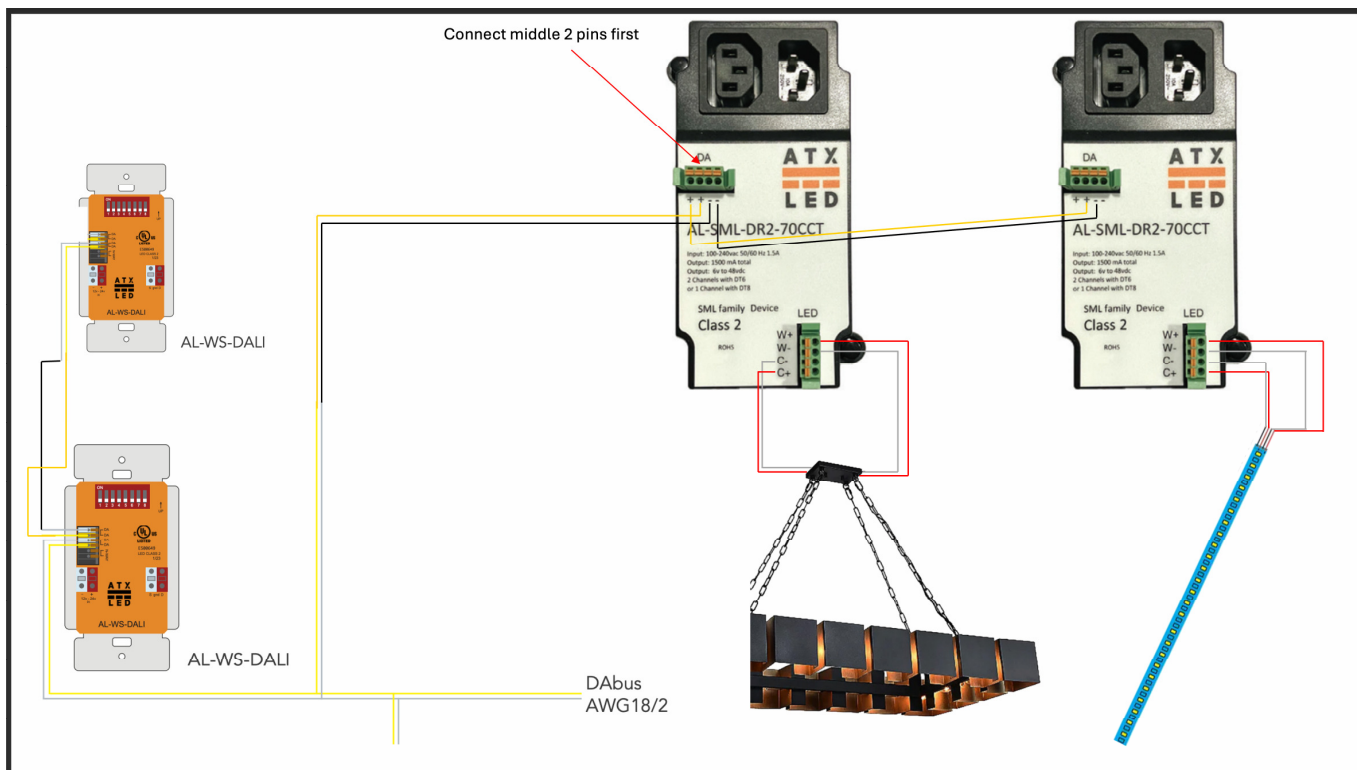
Ordering part numbers

Model	Automation	Local Control	UPC Code
AL-SML-DR2-70CCT	DALI	DALI	850037589036
AL-SML-DR2KW-70CCT	WiFi	Kinetic	
AL-SML-DR2KZ-70CCT	Zigbee	Kinetic	
AL-SML-DR2K-70CCT		Kinetic	

Typical Loads

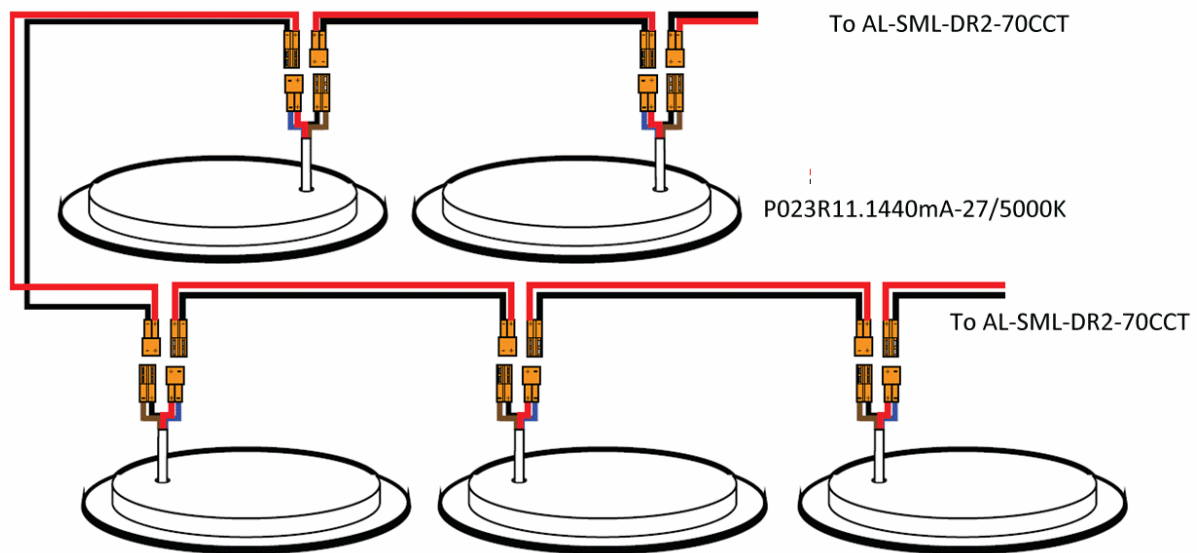
Model	Count	CCT mode	Diameter	Max mA	Watts / bulb
P023R6-Q2C-27/5000K	8	DT8-Tunable	4	1000	6
P02106-Q2C-27/5000K	8	DT8-Tunable	6	1200	7.5
DL-98B / DL127	5	DT8-Tunable	2.75	750	7
DL-120-660mA-3500K	10	Fixed- DT6	4	750 x 2	7
DL-125 / DL-120	5	DT8-Tunable	4	750	7
TL-60 27/5000K	5	DT8-Tunable	2	750	7
TL-120 27/5000K	5	DT8-Tunable	4	750	7
P023R11-1440mA-27/5000K	5	DT8-Tunable	6	1440	12
AL-SL-42v1.5w-27/5000K	40 ft	DT8-Tunable	Strip	1500	
AL-SL-51v2.5w-27/5000K	30 ft	DT8-Tunable	Strip	1500	
P023R6-51v6w	9-12	Fixed-DT6	4	1500	6
Cleanlife CL type Fixed 7w	10	Fixed-DT6	5	1500	7
Cleanlife CL type CCT 7w	10	DT8-Tunable	5	1500	7
E26-48v6w	12	Fixed-DT6	A19	1500	6
E12-48v3w	20	Fixed-DT6	C35	1500	3.5
G9	14	Fixed-DT6		1500	5
G4	14	Fixed-DT6		1500	5
G10	14	Fixed-DT6		1500	5

Wiring Recommendation



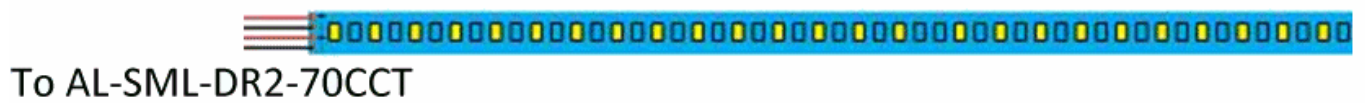
Wiring Recommendations

Disk Lights



Strip Lights

AL-SL-51v1.5w-27/5000K



IEC 62368 Commands Supported

Notes: * means must be sent twice in 100ms, A = ATX LED enhanced commands

Individual Short Address Commands

0	LED Off
1	UP 8 steps
2	Down 8 steps
3	UP one step but don't turn on, set fade to 0 for 3 seconds
4	Down one step but not off
5	Set to MAX level
6	Set to Min level
7	Down one step and Off if at 1
8	Up one step or on if at 0
32	Reset to defaults (don't change Short Address)
33	Save brightness level to DTR
42	Store DTR as Max Level,
43	Store DTR as Min Level
44	Store DTR as Light level should the BUS be disconnected – default 255 means no action
45	Store DTR as power up level, 0 is off, 2 is remember last setting, 3-254 is a brightness level
46	Store DTR as Fade Up duration (see table)
47	Store DTR as Fade Down duration (see table)
* 129	Enable memory Bank write
144	Query Status (if set, indicates status below)
bit 0	Warm Led Connected, or Fan connected
bit 1	Cool Led Connected
bit 2	Either Led ON
bit 3	ARC setting out of range, or LED shorted
bit 4	Fade in action, or Fan in spooling up/down
bit 5	Device not yet configured after a reset
bit 6	Missing Short Address
bit 7	No ARC level set after power failure or last change not stored in EEprom
145	Query if present
146	Query if either attached LED fail
147	Query if LED on
148	Query if ARC command exceeded Min / Max limits
149	Query if in Reset state
150	Query if no address assigned
151	Query BUS version number (== 1)
152	Query DTR
153	Query LED type (no CCT == 6 or CCT == 8)
154	Query Physical DIM level
155	Query Power Failure
156	Query DTR 1
157	Query DTR 2
160	Query Actual Dim Level
161	Query Max Level
162	Query Min Level
163	Query Power On Dim Level
164	Query System Fail Level

165	Query Fade Rate value
192	Query group association 0-7
193	Query group association 8-15
194	Query Random High bits
195	Query Random Middle bits
196	Query Random Low bits
197	Query Memory Bank address DTR1:DTR DTR1 is memory bank, DTR is address (auto increment DTR to next address)
226	Save CCT Color from DTR1 and DTR
231	Set CCT Color from DTR1 and DTR
232	Set CCT cooler by 10%
233	Set CCT warmer by 10%
247	Query CCT type (== 1)
248	Query CCT type (== 32)
249	Query CCT type (== 2)
250	Query CCT color now – DTR1 = MSB, DTR = LSB – see DT8 specifications
255	Query CCT status (209 if CCT enabled)

Global Commands – processed by all BUS devices on the BUS

256	Terminate	
257	Set DTR, set DTR lockout 200 ms	
* 258	Initial Addressing Mode	
* 259	Randomize	
260	Compare Random Address	
261	Withdraw from Random Addressing	
264	Set High Byte	
265	Set Middle Byte	
266	Set Low Byte	
267	Set Short Address if match	
268	Query Short Address	
269	Query Long Address Match	
270	End Addressing modes	
272	Enable CCT commands if CCT mode enabled	
273	Set DTR1, set DTR lockout 200 ms	
274	Set DTR2, set DTR lockout 200 ms	
275	Write Data at Memory Bank DTR1:DTR	Send confirm
276	Write Data at Memory Bank DTR1:DTR	no response

Memory Bank 0 (DTR1 = 0)

DTR register	Bank 0 Name	Bank 0 Value
0	Bytes per Bank (minus 1)	63
1	Checksum	Calculated
2	Number of Banks (minus 1)	3
3	UPC code – msb	850037589036
4	UPC code	
5	UPC code	
6	UPC code	
7	UPC code	
8	UPC code – lsb	
9	FW Version	
10	HW Version	
11	Serial Number – msb	Assigned by Master
12	Serial Number	
13	Serial Number	
14	Serial Number – lsb	
15-63	Storage	User Defined

Memory Bank 1-3 (DTR1 = 1,2,3)

DTR register	Name	Value
0	Bytes per Bank (minus 1)	63
1	Checksum	calculated
2	Number of Banks (minus 1)	3
3-63	User Storage	

Read/Writable Memory Bank 5 (DTR1 = 5)

1	Checksum	0-15 means send group 255 means send short address	
2	Enable write Disable write	0x55 0xFF	
76	CCT fade time	Seconds / 10 (255 = 40 minutes)	
9	Operation Mode	3	CCT LED
		4	Fixed Dual LED

Read Only Diagnostics in Memory Bank 5 (DTR1 = 5)

$56 * 25.6 + 57/10$	Voltage of the Warm LEDs real time	0 to 560 steps = 0-56.0 Volts
$58 * 25.6 + 59/10$	Voltage of the Warm LEDs real time	0 to 560 steps = 0-56.0 Volts

In DT6 mode, W+ and W- are one channel and C+ C- are the other channel.

In DT8 mode – the Warm and Cool sides are in the same fixture or strip.