S040W-028C1400-L01-UN-D2
40W Programmable LED Driver

select|SYNC intelligent

N)) NFC · c(UL)us · CLASS P · CE · FC · RoHS COMPLIANT · IP20

Electrical Specifications

Maximum Power:	40W
Typical Efficiency:	83%
Input Voltage Range:	120-277 Vac ± 10%
Frequency:	50/60 Hz
Power Factor:	> 0.90 @ 80-100% load, 120-277Vac
Inrush Current:	25A @ 120V, 50A @ 277V
Input Current (Max):	0.48A @ 120Vac, 0.22A @ 277Vac
Output Dimming Range:	1-100% (14mA @ Max POC)
Load Regulation:	±2%
Line Regulation:	±1%
THD:	<20% @ 80-100% load, 120-277Vac
Start Up Time	<750ms @ 100% load
Output Ripple Current:	<3% Io

Protections

Over-voltage:	Auto recovery
Over-current:	Auto recovery
Short Circuit:	Auto recovery
Over-temperature	Reduce Output To 50% @ Tc $\geq$ 90

Environmental Specifications

Max Case Life Temp: *(5 year warranty)*	75˚C
Maximum Case Temp (UL):	90˚C
Minimum Starting Temp:	-20˚C
Storage Temperature:	-40˚C to +85˚C
Humidity:	5% to 95%
Cooling:	Convection
Vibration Frequency:	TBD
Sound Rating:	Class A
Weight:	16 oz (454g)

- Constant Current, Dimmable
- Programmable Output Current (POC): 470mA to 1400mA
- Dim-to-off mode
- Flicker-free output
- Auxiliary output: 12Vdc, 200mA max
- 0-10V dimming, down to 1% at max POC
- UL Dry & Damp Location Rated, Class 2 output
- UL Class P
- UL Type HL for hazardous locations
- NFC Programming with universal NFC Reader for flexible and precise tuning
- Narrow cross-section fits T5-style ballast channels
- Metal housing
- 5 year warranty*

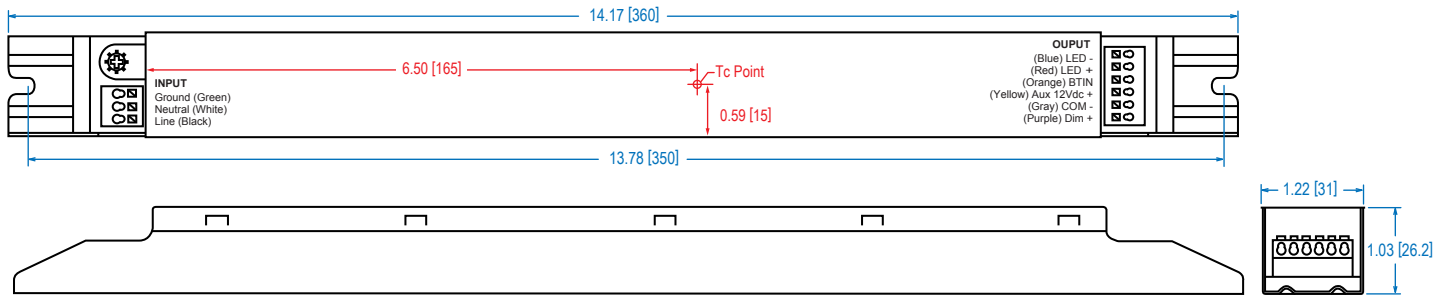| Part	Model	Adj. Current Out (mA ±5%)	Voltage Out (Vdc)	Max Power (W)	Wire End
93057521	S040W-028C1400-L01-UN-D2	470-1400	14-28.5	40	

Class 2: US/Canada

Safety Cert.	Standard
UL/CUL	UL8750, UL1310 for UL Class 2 & CAN/CSA C22.2 No. 250.13, UL Class P, UL Type HL
CE	EN61347-1, EN61347-2-13
EMC Standard	**Notes**
FCC, 47CFR Part 15	ANSI C63.4:2009 (120V input meets Class B, 277V input meets Class A)
EN 61000-3-2	Harmonic Current Emissions Class C
EN 61000-4-5	Part 4-5: Surge Immunity test, 2.5 kV L-N, L-FG & N-FG

* For extended warranty options beyond 5 yrs., contact factory.

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40W Programmable LED Driver

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IN [mm]

14.17 [360]

6.50 [165]

Tc Point

0.59 [15]

INPUT
Ground (Green)
Neutral (White)
Line (Black)

OUPUT
(Blue) LED -
(Red) LED +
(Orange) BTIN
(Yellow) Aux 12Vdc +
(Gray) COM -
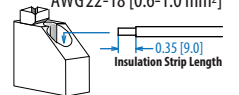(Purple) Dim +

13.78 [350]

1.22 [31]

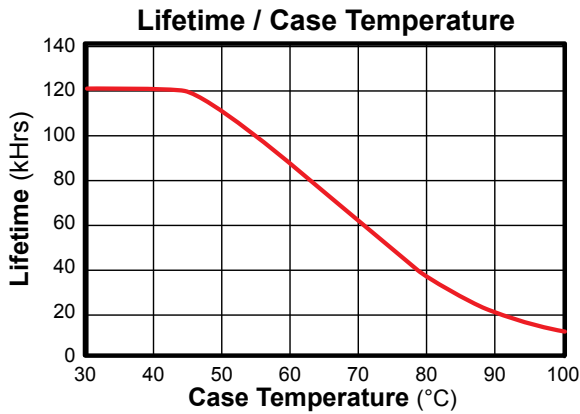1.03 [26.2]

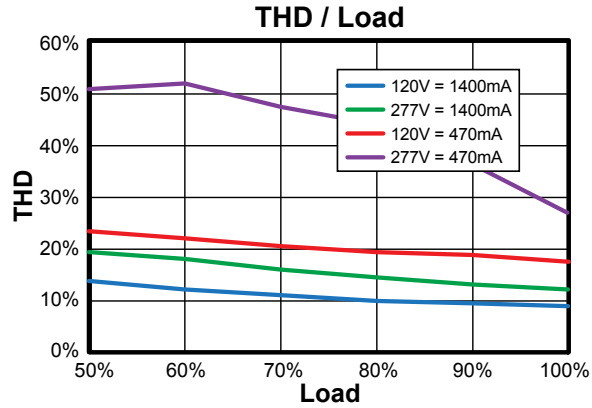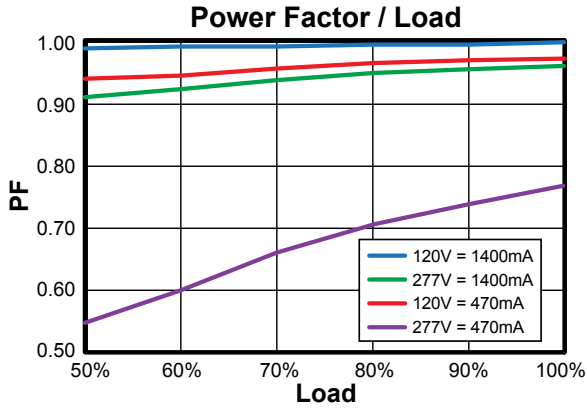**Case must be grounded in end-use application**

Remote Mounting:
Max Distance 26ft. using #18 AWG

PUSH IN CONNECTORS
Wire Gauge: Solid Copper
AWG 22-18 [0.6-1.0 mm²]

0.35 [9.0]
Insulation Strip Length

Power Characteristics

Power Factor / Load

Legend:
- 120V = 1400mA
- 277V = 1400mA
- 120V = 470mA
- 277V = 470mA

THD / Load

Legend:
- 120V = 1400mA
- 277V = 1400mA
- 120V = 470mA
- 277V = 470mA

Lifetime / Case Temperature

Efficiency / Load

Legend:
- 120V = 1400mA
- 277V = 1400mA
- 120V = 470mA
- 277V = 470mA
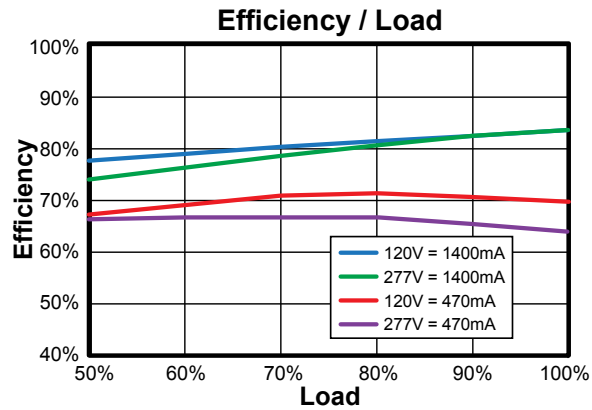
Parameter Defaults

Parameter	Default Setting	Setting Range	Increment
Output Current (mA)	1400	470 - 1400	1

Note: The area under the life-temperature curve represents where the driver has highly reliable operation within specification. Driver performance may drift out of published specifications as the hours of operation exceed the curve at a given temperature. Higher operating temperatures increase the chances of a failure to function. Other electrical, mechanical and environmental factors affect driver lifetime but are not represented in this calculation.

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Wiring

LED Driver

(Blue) LED -
(Red) LED +
(Orange) BTIN (Not Used)
(Yellow) Aux 12Vdc +
(Gray) COM/DIM -
(Purple) DIM +
NFC Antenna

LED ENGINE
+
–

OPTIONAL
GRAY -
PURPLE +

0-10V DIMMER or CONTROL

INCOMING POWER

GROUND (Green)
NEUTRAL (White)
LINE (Black)

Case Must Be Grounded

Power Operating Window

OPERATING WINDOW
Vout (Vdc) vs. Output Current (mA)

Minimum POC
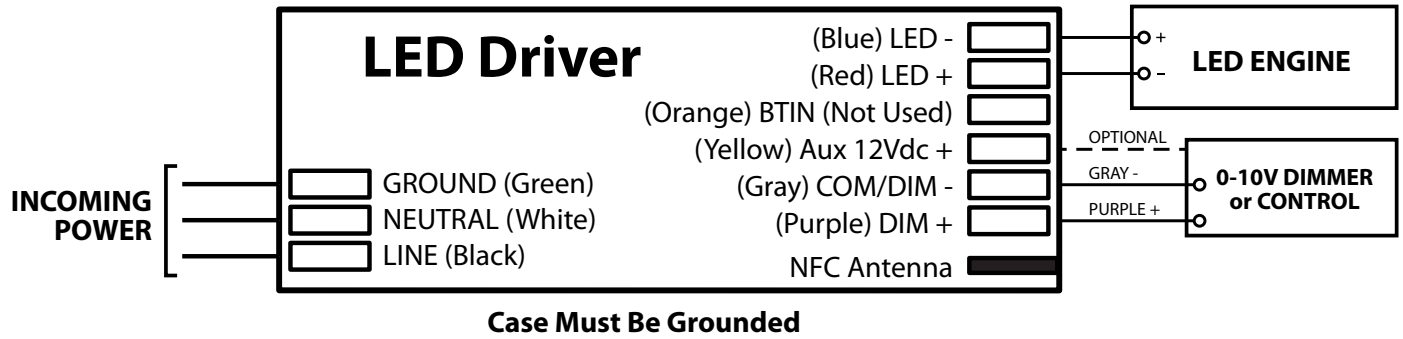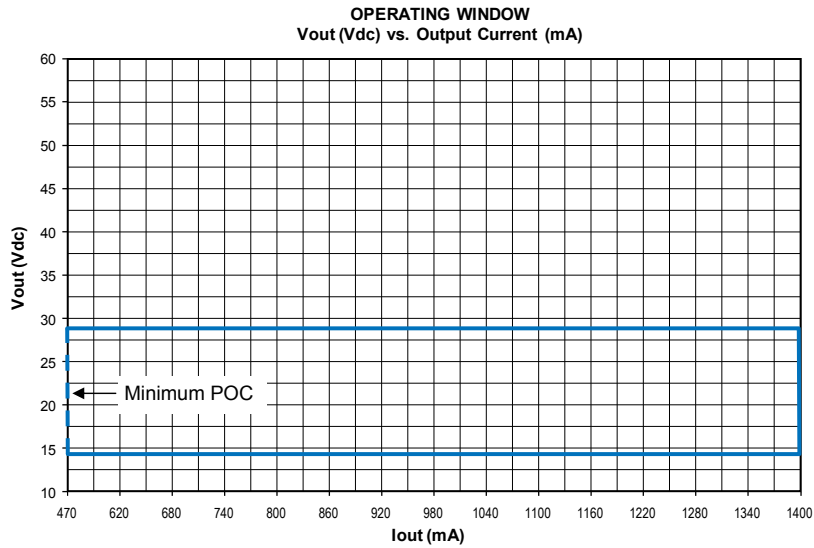
Labeling Programmable Drivers

It is highly recommended that the drivers be labeled with information traceable to the programmed current.
This information is critical to answering any field questions from the contractor or end user.

## Programming Guide

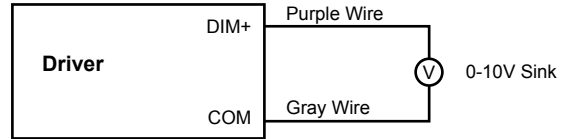Refer to the *SelectSYNC* Programming Software User's Manual.

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Dimming: 0-10Vdc

Parameters	Minimum	Typical	Maximum
Source Current out of 0-10V Purple Wire	0mA	—-	2mA
Absolute Voltage Range on 0-10V (+) Purple Wire	-60V	—-	+15V

Typical Dimming Circuit: 2-Wire Resistance

Driver — DIM+ — Purple Wire — Leviton IP710 Wall Dimmer (Example)
Driver — COM — Gray Wire
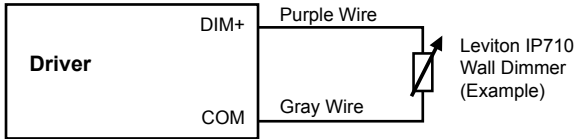
Typical Dimming Circuit: 2-Wire 0-10V Analog

Driver — DIM+ — Purple Wire — (V) 0-10V Sink
Driver — COM — Gray Wire

Operating Current Behavior by AD Voltage
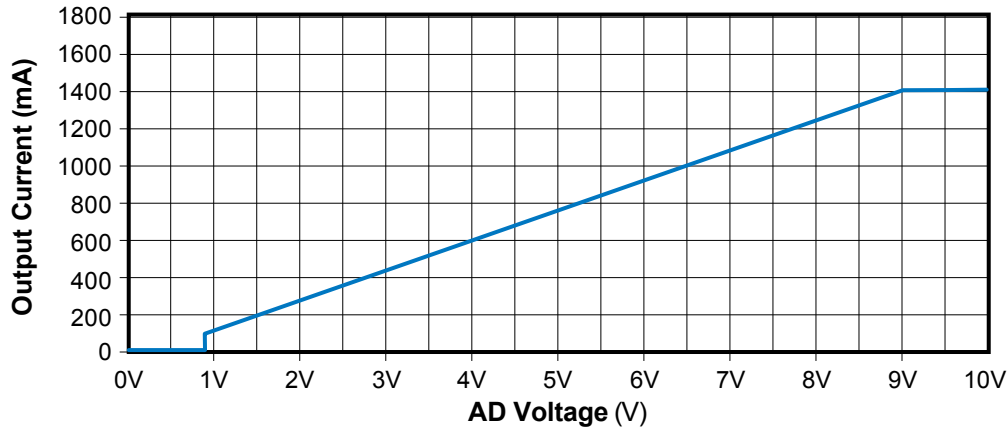
0-10V Dimming Notes:

1. Part comes with two dimming input connectors +Purple/-Gray on the output side.
2. Part is compatible with most 0-10V Wall Slide dimmers and 0-10V dimming.
3. Output current will be 1% when Vdim=1.0V.
4. Output current will be 0% (off) when Vdim <0.85Vdc.
5. Output will be 100% with Purple/Gray open and 0% with Purple/Gray Shorted.

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