

Warnings

1. Do not connect/disconnect input or output wiring while powered
2. Do not connect APT Programmer while APT controller is powered by DC power source
3. Follow ESD protection procedures while handling input or output wiring, and programming port
4. Do not attach an AC input to the APT controller; DC input only
5. Use only with a driver providing an isolated DC output (ie. the output has no earth or protective ground reference).
6. Read and respect all voltage, current and power limits outlined in the electrical specifications section of the hardware version being used
7. Carefully follow and check all wiring diagrams in this document for the correct hardware version being used

Operating Conditions

Environmental	
Ambient Temperature, Range	-40 to +50°C
Material	Plastic

Mechanical Specifications

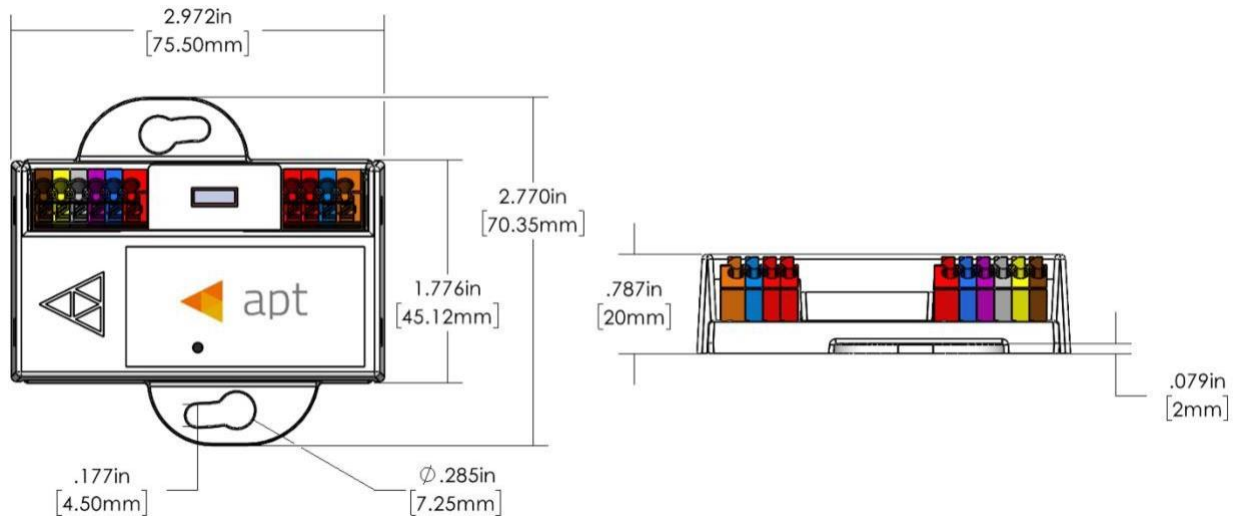


Figure 1 - APT-CV2-Vx-SQ Mechanical Drawing

Dimensions	Inches
Length	2.97
Width	2.77
Height	0.79

APT-CV2-VWC-SQ MODULE (WIRELESS)

Electrical Specifications

Input

Port	Voltage		V	Current		mA	Power		W
	Min	Max		Min	Max		Min	Max	
DC IN +/-	12	60		42	4,100		-	100	

Output

Port	Voltage		V	Current		mA	Power		W
	Min	Max		Min	Max		Min	Max	
+	-	58		0	4,058		-	100	
CH1	-	58		0	3,200		-	-	
CH2	-	58		0	3,200		-	-	

Wireless Operating Conditions ¹	
Maximum Transmitter Power	+4dBm
Operating Frequencies	2.4GHz
Maximum Open-Air Range	270m

Contains modular transmitter with FCC ID: X8WBM832, IC (Industrial Canada) ID: 4100A-BM832

Wireless signal range of the controller will decrease if placed in a metal enclosure or placed near other wireless devices operating at similar frequencies, keep the VWx controller at least 20cm away from other VWx controllers or wireless devices. The end product with this module may subject to perform FCC part 15 unintentional emission test requirement and be properly authorized.

This device is intended for OEM integrator only.

If used with ANT020 antenna or integrated PCB trace antenna, device does not require routine evaluation or SAR testing.

Wiring Diagram

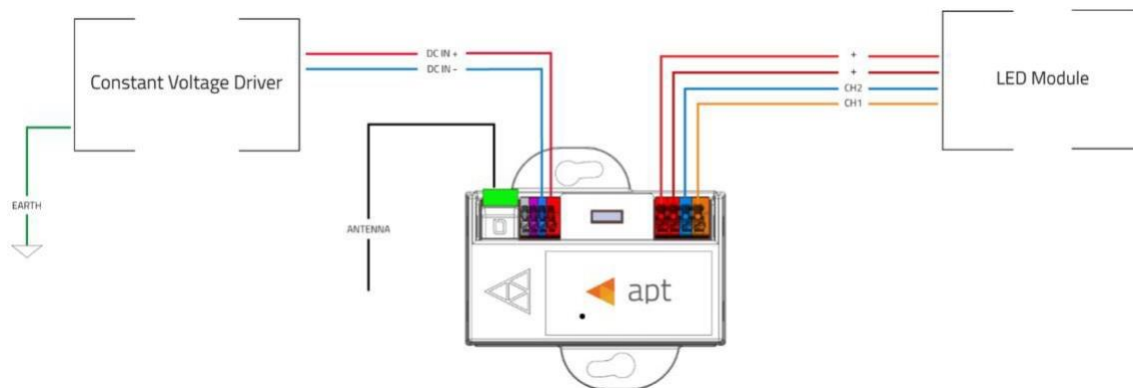
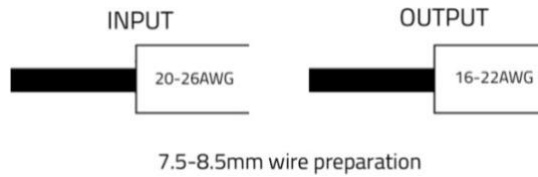


Figure 7 - APT-CV2-VWx-SQ Wireless Communication Configuration

Wiring	AWG
Input	20-26
Output	16-22
Antenna	ANT020*

*Integrated embedded PCB trace antenna option available on request, ANT020 antenna does not come with device by default, please include request for antenna if necessary



Ordering Information

Product Code	Description
APT-CV2-VWx-SQ-yA-wwww	VWx – Wireless - BLE Mesh hardware version (VWC – Casambi BLE) SQ – Square form factor yA – Antenna version (EA – embedded antenna, WA -whip antenna) wwww – Internal code provided by Arkalumen as a simplified configuration code for repeat orders

Configuration Code	Description
nnn-0000-tttt-1Cxxx-2Cxxx	nnn – Wireless control protocol 0000 – No base address to be specified tttt – Output control feature yCxxx – Channel-specific max current

Configuration Code Details

Code	Description	Option	Configuration Trait
nnn	nnn denotes the wireless communication source implemented.	CBM	Wireless via Casambi BLE Mesh
tttt	tttt denotes the output control features enabled on the controller.	0000	Calibrated CCT mapping disabled.
		CALC	Calibrated CCT enabled. Calibrated CCT can be customized to output specific desired light metrics.
yCxxx	yCxxx denotes the maximum current for channel y as configured in the controller’s firmware in 20mA increments.	1C###	Maximum current specified up to 3,200mA.
		2C###	e.g. -1C200-2C200 would specify 2000mA max current for channel 1 and 2.