

USER MANUAL

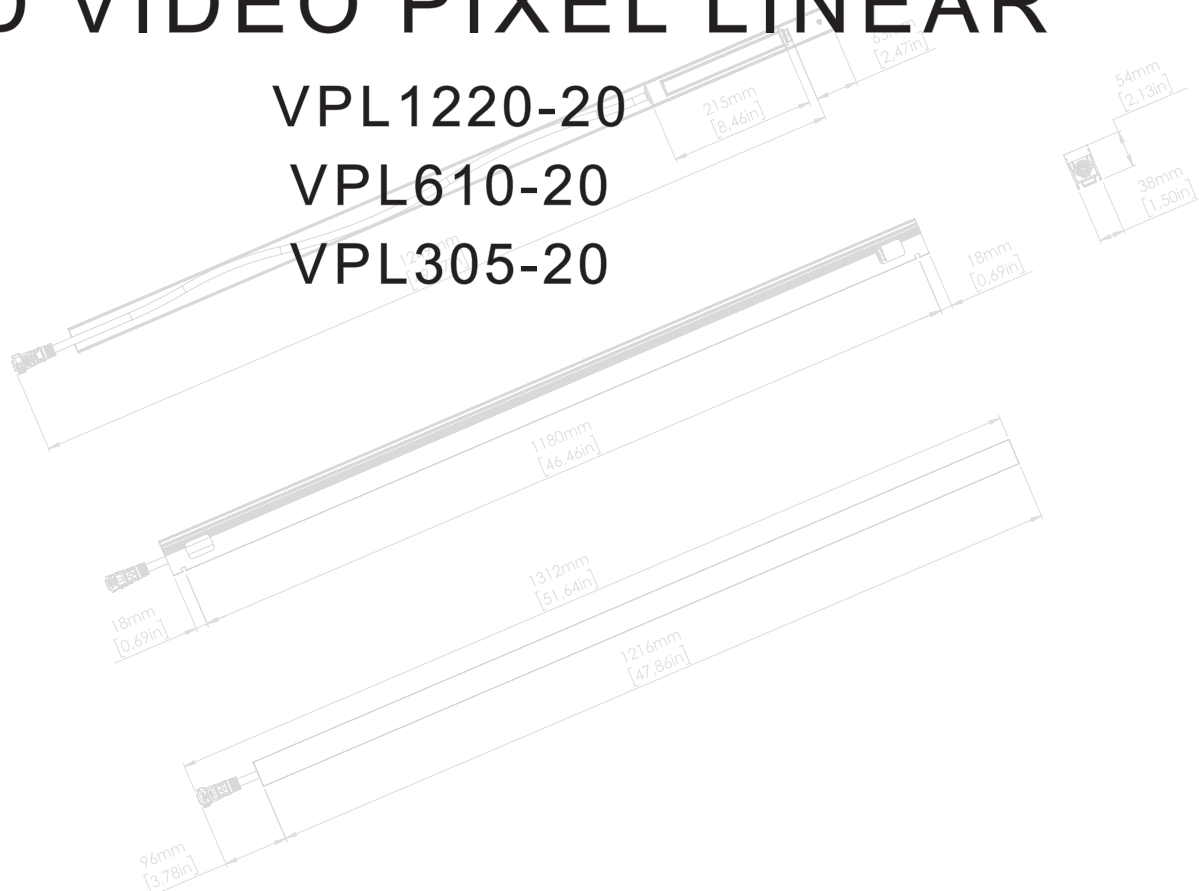


LED VIDEO PIXEL LINEAR

VPL1220-20

VPL610-20

VPL305-20



VPL Series dimensions

The VPL dimension drawing is available for download at www.sgmlight.com under the respective product, or upon request via support@sgmlight.com.

**This manual covers installation, use, and maintenance of the SGM LED Video Pixel Linear products.
A digital version is available at www.sgmlight.com, or upon request via support@sgmlight.com.**

LED VIDEO PIXEL LINEAR (VPL) SERIES USER MANUAL REV. A

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English edition

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Safety information



WARNING!

Read the safety precautions in this section before installing, powering, or operating this product.



SGM luminaires are intended for professional use only. They are not suitable for household use.

Les luminaires SGM sont impropres à l'usage domestique. Uniquement à usage professionnel.

Review the following safety precautions carefully before installing or operating the device.



DANGER! *Risk of electric shock. Do not open the device.*

- Do not open the device; there are no user-serviceable parts inside.
- Ensure that power is cut off when wiring the device to the AC mains supply.
- Ensure that the device is electrically connected to earth (ground).
- Do not apply power if the device or mains cable is in any way damaged.
- Do not immerse the fixture in water or liquid.



WARNING! *Take measures to prevent burns and fire.*

- Install in a location that prevents accidental contact with the device.
- Install only in accordance with applicable building codes.
- Do not paint, cover, or modify the device, and do not filter or mask the light.
- Keep all flammable materials well away from the device.
- Allow the device to cool for 15 minutes after operation before touching it



WARNING! *Take measures to prevent personal injury.*

- Do not look directly at the light source from close range.
- Take precautions when working at height to prevent injury due to falls. Secure the fixture with suitable safety cables, and always comply with relevant load dimensioning, safety standards, and requirements.
- For Permanent Outdoor Installations (POI), ensure that the fixture is securely fastened to a load-bearing surface with suitable corrosion-resistant hardware.

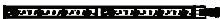
Overview

The VPL Series is a video pixel linear designed to create powerful pixel mapping and media effects for both indoor and outdoor installation. Perfect *luminaire* for linear and radial installations where high-visibility and very flexible setup are essential.

The VPL Series:

- Versatile and compact luminaire, using a larger 6 x 6 mm imaging area with four Full-Color LED chips per pixel.
- IP-66-rated enable operation in temperatures in all kinds of environmental settings, and in temperatures from -40C to 50C.
- IK05-rated, C-5M (marine), UV and corrosion resistant.
- Power and data in one cable with, and no need for external power supplies.
- Art-Net controllable.
- 16 bit control; real time remote monitoring; auto addressing.
- Available in three different lengths, with clear front glass; optional opal front glass as an accessory.

VPL variants:

VPL	Size	LED Quad pixel
1220-20	1220mm. / 4 ft. 	64 Quad pixel clusters 256 Full-Color LED chips
610-20	610mm. / 2 ft. 	32 Quad pixel clusters 128 Full-Color LED chips
305-20	305mm. / 1 ft. 	16 Quad pixel clusters 64 Full-Color LED chips

Preparing for installation

Unpacking

Unpack the device and inspect it to ensure that it has not been damaged during transport.

Location / application

The fixture is IP66-rated and designed for both indoor and outdoor events. This means that it is protected from:

- Dust, to the degree that dust cannot enter the device in sufficient quantities as to interfere with its operation
- Pressure jets of water from any direction

When selecting a location for the device, ensure that:

- It is situated away from public thoroughfares and protected from contact with people
- It is not immersed in water or exposed to high-pressure water jets
- It has adequate ventilation

Connecting the VPL Series

Connecting to AC power

The VPL Series can operate on any 200–240 V, 50/60 Hz AC mains power supply, via a Power+Data distributor (not included). Connect the fixture to AC power using a SGM VPL cable (not included) or similar, to ensure the correct ingress protection (IP-rating).

Always ensure that the installation doesn't exceed a maximum capacity in a daisy-chain.

The power cable must be grounded/earthed and be able to be isolated from AC power. The AC power supply must incorporate a fuse or circuit breaker for fault protection.

Wire	Color	Symbol	Conductor
	Black	L	live
	White	N	neutral
	green/yellow	$\perp$ or 	ground (earth)

Figure 2: Connecting AC Power

For outdoor installations, the mains cable must be fitted with a grounded connector intended for exterior use, and must be carried out by a qualified electrician.

CAUTION!!

Do not connect the fixture to an electrical dimmer system, as doing so may cause damage.

VPL Series Connector

The VPL Series has a female multicore 8 pin cable located in the first end of the VPL, and a male multicore 8 pin connector in the last end of the VPL. The 8 pin are divided by 1xShield, 2xPower, 4xSignal - see image below showing the layout in detail.

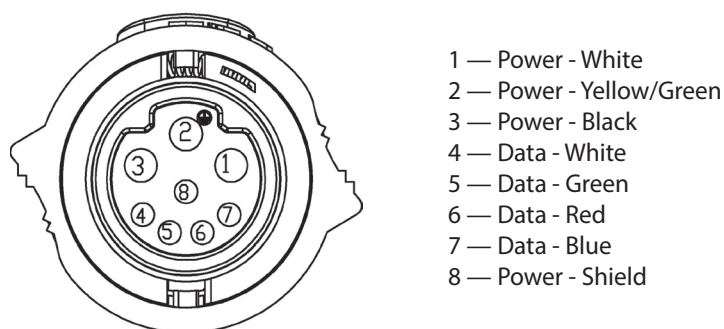


Figure 3: VPL connector

VPL Connection diagram

The VPL Connection Diagram is available for download at www.sgmlight.com under the respective product, or upon request via support@sgmlight.com.

Installing the VPL Series

For assistance in how to install the VPL, please contact support@sgmlight.com, or a certified SGM service partner.

Configuring the VPL Series

SGM offers the Video Pixel Administrator software to configure and manage the VPL Series, with real time monitoring and network capabilities. It is an intuitive, plug and play software designed to take advantage of VPL Series technology via a single Ethernet connection.

VPL Data management

The VPL Series features ArtNet (up to 120 Hz), sACN, Kling-Net and SGM VP-net with Megabit data communication.

For large and complex Video Pixel Linear installations, requiring Gigabit ethernet networks, SGM provides a powerful external data distribution device: the VP Processor (not included). This device is fully compatible with ArtNet, sACN and Kling-Net protocols. It also manages the new VP-Net protocol, created by SGM for the Video Pixel series. The

Contact your SGM sales representative for further information about the SGM VP Processor, or to purchase the device. A third-party data processor can be used, if preferable.

Troubleshooting

Problem	Potential cause(s)	Remedies
Fixture does not respond or appears to be completely dead.	No power to the fixture.	Confirm that the power is switched on, and confirm that all the cables are plugged in.
	LED Cluster or VPL mainboard are dead.	Contact your local SGM dealer or support@sgmlight.
Fixture suddenly turned off.	Power was turned off.	Check the power supply.
Fixture suddenly stopped responding.	The Art-Net transmitter was disconnected/tampered with.	Inspect the wireless transmitter and connections.
Color is uneven.	One or more LED chips are broken.	Contact your local SGM dealer or support@sgmlight.

Maintenance

Service

There are no user-serviceable components in the devices.

Do not open any of the parts in the VPL Series system, as doing so is likely to cause damage.

Consult your SGM dealer or support@sgmlight.com if the device operates abnormally, is defective, or otherwise in need of service or repair.

Cleaning

SGM luminaires with IP66-rating do not need any cleaning procedures inside the fixture. However, cleaning the front lens may be needed to achieve the maximum light output after exposure to dust, sand, or dirt. Exterior housing can also be cleaned to get a better look. To maintain adequate cooling, fans must be cleaned periodically.

Whenever necessary, clean the VPL Series using a soft cloth dampened with a solution of water and a mild detergent. Do not use products that contain solvents, abrasives, or caustic agents for cleaning, as they can cause damage to both hardware, cables, and connectors.

The level of cleaning required will vary greatly depending on the operating environment and installation. It should therefore be checked at frequent intervals within the first few weeks of operation to see how often cleaning is necessary.

Fixtures and accessories

The VPL Series can be used with a variety of accessories.

Contact your local SGM dealer to get the latest pricing and news about available accessories.

Please note: the products listed below are subject to change without notice.

Ordering information

VPL305-20 - Clear.....	P/N: 80080052
VPL1220-20 - Clear.....	P/N: 80080053
VPL610-20 - Clear.....	P/N: 80080055

VPL Accessories

VPL cable 1m.....	P/N: 07860249
VPL cable 2,5m.....	P/N: 07860250
VPL cable 5m.....	P/N: 07860251
Power + Data Joiner.....	P/N: 83062046
VP Processor.....	P/N: 80070238

Support hotline

SGM offers 24/7 technical support hotline.

Worldwide: +45 3840 3840

US: +1 877 225-3882

support@sgmlight.com

Approvals and certifications

Conforms to
Conforms to
Conforms to

2014/35/EU: Low Voltage Directive
2014/30/EU: EMC Directive
2011/65/EU: RoHS2 Directive



The information in this document is subject to change without notice. For the latest information, see www.sgmlight.com.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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