

VC-Strip

CREATIVE LED VIDEO STRIP WITH 25MM PIXEL PITCH

SPEC SHEET



HIGHLIGHTS

- Wide range of pixel pitches to suit every application
- Easy cabling, mapping and configuration
- Bright and fully calibrated for optimal consistency

OVERVIEW

The VC-Strip family of narrow RGB LED video strips is ideal for integration of video into stage and set designs, interiors, custom set elements and more. VC-Strips are fully pixel-level calibrated on brightness and colors for optimal uniformity and quality and are driven by Martin's award-winning P3 System Controller family for smooth playback that outperforms any DMX-based system. VC-Strips are available in various lengths and can even be cut to required length on-site.

KEY MESSAGES

FLEXIBLE MOUNTING

The VC-Strip are lightweight and compact RGB LED strips, which can be arranged in many creative shapes combined with VC-Grid as well. The VC-Strip comes in four different pixel pitch variants to cover a wide range of applications. Used with or without a front diffuser, multiple VC-Strips can be combined in a countless variety of ways for ultimate design freedom.

EASY INFRASTRUCTURE

The VC-Strips are daisy-chained with a hybrid power and data cable for easy installation. The VC-Strip can be controlled via the Martin P3 protocol for easy mapping and integration with other Martin LED Video products onto the same control system. For small or pure lighting applications, the VC-Strip also accepts RDM/DMX, enabling even more versatile use.

OPTIMAL PERFORMANCE

All VC-Strips feature advanced color & brightness calibration & color-matching even between different fixture types. The entire system is fully synchronized, ensuring all elements work cohesively without visible latency. The fixtures can be specified for noise sensitive applications as they are completely silent and the power supply can be mounted away from the fixtures.

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FEATURES

- 16/8 individually controllable pixels
- 25 mm pixel pitch
- 4000 nits of brightness
- High-quality, 16-bit per color image processing technology
- Pixel-level brightness and color calibration for optimal image quality
- P3/DMX controllable (automatic protocol detection)
- Intuitive mapping and addressing via P3 System Controller
- Combined power/data input (single cable for power and data input)
- Combined power/data thru (to daisy-chain up to 45 VC-Strips)
- Supported by integrated power and data processor (P3 PowerPort 1500) and simple cabling system
- Length of VC-Strip can be customized on-site (simple cutting) to fit integration needs
- Compatible with VC-Grid

ORDERING INFORMATION

- VC-Strip™ 16x1 25 RGB P/N 90357290
- VC-Strip™ 8x1 25 RGB P/N 90357320

RELATED ITEMS

- Martin P3™ PowerPort 1500 P/N 90721040
- Martin™ IP66 PSU 240 W external power supply unit.. P/N 90760330
- Martin P3-050™ System Controller P/N 90721090
- Martin P3-150™ System Controller P/N 90721015
- Martin P3-300™ System Controller P/N 90721060
- Martin P3-PC™ System Controller..... P/N 90721030



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ORDERING INFORMATION ACCESSORIES

MOUNTING FRAMES:

- VC-Grid/Strip 25 Mounting Frames, set of 10..... P/N 91611370

INPUT CABLES:

- P3 via P3 PowerPort 1500**
- Power+Data Adapter XLR4-PCB, 0.25 m (0.9 ft.) P/N 91616035
- DMX via Martin IP66 PSU**
- Power+Data Adapter XLR5+Martin PSU-XLR4, 0.25 m (0.9 ft.)..... P/N 91616039
- DMX via Generic PSU**
- Power+Data Adapter XLR5+Power-XLR4, 0.25 m (0.9 ft.)..... P/N 91616037
- DMX via P3 PowerPort 1500**
- Power+Data Adapter XLR5+XLR4-XLR4, 0.25 m (0.8 ft.)..... P/N 91616038

- Power+Data Cable PCB-PCB, 1000 mm (39.4 in.) P/N 91616029

EXTENSION CABLES:

- Power+Data Cable XLR4-XLR4, 1 m (3.3 ft.) P/N 91616030
- Power+Data Cable XLR4-XLR4, 2.5 m (8.2 ft.) P/N 91616031
- Power+Data Cable XLR4-XLR4, 5 m (16.4 ft.) P/N 91616032
- Power+Data Cable XLR4-XLR4, 10 m (32.8 ft.) P/N 91616033
- Power+Data Cable XLR4-XLR4, 25 m (82.1 ft.) P/N 91616034

OUTPUT/THROUGHPUT CABLES:

- Power+Data Adapter PCB-XLR4, 0.25 m (0.9 ft.) P/N 91616036
- Power+Data Adapter XLR4-XLR5, 0.25 m (0.9 ft.)..... P/N 91616040

LINK CABLES:

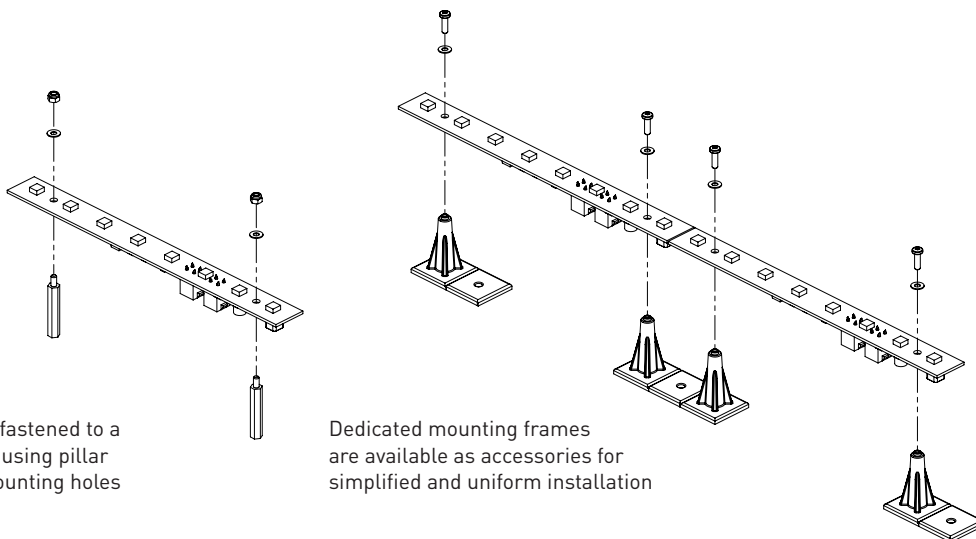
- Power+Data Cable PCB-PCB, 200 mm (7.9 in.) P/N 91616025
- Power+Data Cable PCB-PCB, 400 mm (15.8 in.) P/N 91616026
- Power+Data Cable PCB-PCB, 600 mm (23.7 in.) P/N 91616027
- Power+Data Cable PCB-PCB, 800 mm (31.5 in.) P/N 91616028

CABLE WITHOUT CONNECTORS:

- Power+Data Cable, Rental, 100 m (328.1 ft.) P/N 91616045
- Power+Data Cable, Install CMX, 100 m (328.1 ft.)..... P/N 91616060
- Power+Data Cable, Install LSZH, 100 m (328.1 ft.)... P/N 91616017

Refer to system diagram for infrastructure details

MOUNTING OPTIONS



The VC-Strip can be fastened to a surface or structure using pillar bolts through the mounting holes

Dedicated mounting frames are available as accessories for simplified and uniform installation

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TECHNICAL SPECIFICATIONS

CONTROL AND PROGRAMMING

| | |
|---------------------------------|--|
| Control options | Martin P3 System Controller™ via Martin P3 PowerPort 1500™ and/or DMX |
| Control modes | Pixel and module |
| Control resolution | 16-bit (P3) or 8-bit (DMX) control of each color |
| Protocol detection | Automatic |
| Setting and addressing | P3 System Controller or RDM-compliant controller |
| DMX channels | Pixel mode 16x1 model = 48, 8x1 model = 24; Module mode (all models) = 3 |
| Color and intensity calibration | Pixel-level |
| Firmware update | Via P3 System Controller |
| DMX compliance | USITT DMX512-A |
| RDM compliance | ANSI/ESTA E1.20 |

CONTROL/USER INTERFACE

| | |
|-----------------------|--|
| Device status | Multi-color visual indication |
| Device test and reset | Pushbutton to call up local test patterns and reset device |

OPTICS

| | |
|----------------------|---|
| Minimum LED lifetime | 50,000 hours (to >70% luminous output)* |
|----------------------|---|

*Figure obtained under manufacturer's test conditions

PHOTOMETRIC DATA

| | |
|-------------------------------------|-----------------|
| Pixels | 16/8 per module |
| Luminous intensity, calibrated mode | 4000 Nit |
| Total max output (16x1) | 110 lumen |
| Total max output (8x1) | 60 lumen |
| Viewing angle | 120° x 120° |

P3 VIDEO PROCESSING

| | |
|---------------------------|--------------------------------------|
| Color Resolution | 16 bits per color (48 bit per pixel) |
| Color Temperature Control | 2000K-11000K |
| Synchronization | System-wide |
| Frame Rate | Up to 75 frames/sec |
| Brightness Control | 0-100% (at full color resolution) |
| Gamma Correction | Fully controllable |
| Gamma Control | Fully controllable |
| Color Gamut Control | Fully controllable |
| LED aging correction | Built-in |

CONSTRUCTION

| | |
|-------------------|-------------------------|
| Base | Black FR4 circuit board |
| Protection rating | IP20 |
| RoHS compliant | |

INSTALLATION

| | |
|---|--------------------------|
| Mounting | Mounting holes in module |
| Orientation | Any |
| Maximum number of VC-Strip™ 16x1 25 modules per daisy-chain | 45 |
| Maximum number of VC-Strip™ 8x1 25 modules per daisy-chain | 63 |

CONNECTIONS

| | |
|--------------------|-----------------------|
| Power & data input | 4-pin Molex connector |
| Power & data thru | 4-pin Molex connector |

ELECTRICAL

| | |
|-----------------------|---|
| Nominal input voltage | 48 VDC from Martin P3 PowerPort 1500™ or external PSU |
|-----------------------|---|

| | |
|--|-------------------------------|
| Peak power consumption (at full intensity, full white) | 16x1 model 8 W; 8x1 model 4 W |
|--|-------------------------------|

| | |
|--|---------------------------------|
| Typical power consumption (with typical video content) | 16x1 model 3 W; 8x1 model 1.5 W |
|--|---------------------------------|

Figures for typical video content are indicative only and will vary. Power consumption figures include cable and assume a 50 m chain

THERMAL

| | |
|---------|------------|
| Cooling | Convection |
|---------|------------|

| | |
|---------------------------------------|-------|
| Maximum ambient temperature (Ta max.) | 45° C |
|---------------------------------------|-------|

| | |
|---------------------------------------|--------|
| Minimum ambient temperature (Ta min.) | -20° C |
|---------------------------------------|--------|

| | |
|---|---|
| Peak heat dissipation (calculated, at full intensity, full white) | 16x1 model 28 BTU/hr.; 8x1 model 14 BTU/hr. |
|---|---|

| | |
|---|--|
| Typical heat dissipation (calculated, with typical video content) | 16x1 model 11 BTU/hr.; 8x1 model 5.5 BTU/hr. |
|---|--|

Figures for typical video content are indicative only and will vary.

APPROVALS

| | |
|-----------------|--|
| EU safety | EN 60950 |
| EU EMC | EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 |
| US safety | ANSI/UL 60950-1 |
| Canadian safety | CSA C22.2 No. 60950-1 |



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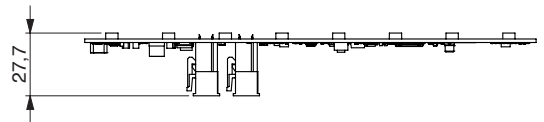
SPEC SHEET

DIMENSIONS

PHYSICAL

VC-Strip 16x1 25™

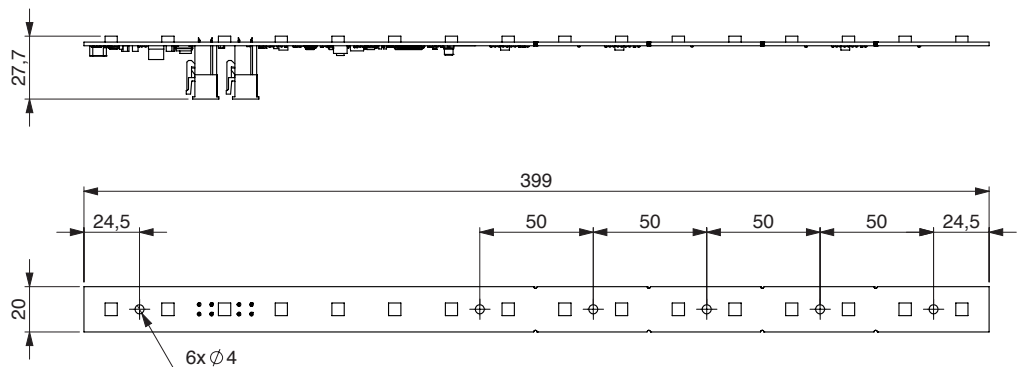
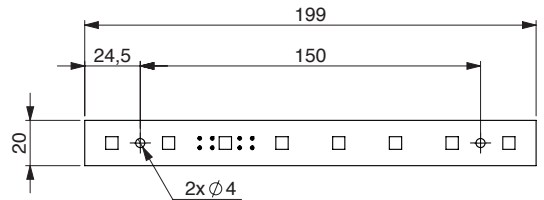
- Length.....400 mm (15.8 in.) *
- Width.....20 mm (0.8 in.)
- Height.....17 mm (0.7 in.)
- Weight.....43 g (0.1 lbs.)



VC-Strip 8x1 25™

- Length.....200 mm (7.9 in.) *
- Width.....20 mm (0.8 in.)
- Height.....17 mm (0.7 in.)
- Weight.....26 g (0.06 lbs.)

*Including 1 mm board-to-board gap



All dimensions are in mm. Illustrations are shown including female Molex connector.

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VC-GRID/VC-STRIP FAMILY OVERVIEW

| Model | Layout | Dimension* | Height | Pixel pitch | Calibrated Output |
|-------------|---------|-----------------|---------|-------------|-------------------|
| VC-Grid 15 | 16 x 16 | 240 mm x 240 mm | 15,3 mm | 15 mm | 5000 Nit |
| VC-Grid | 8 x 8 | 200 mm x 200mm | 17 mm | 25 mm | 4000 Nit |
| VC-Grid 30 | 8 x 8 | 240 mm x 240 mm | 15,3 mm | 30 mm | 2750 Nit |
| VC-Grid 60 | 8 x 8 | 480 mm x 480 mm | 15,3 mm | 60 mm | 750 Nit |
| VC-Grid 60 | 4 x 4 | 240 mm x 240 mm | 15,3 mm | 60 mm | 750 Nit |
| VC-Strip 15 | 32 x 1 | 480 mm x 19 mm | 15,3 mm | 15 mm | 5000 Nit |
| VC-Strip 15 | 16 x 1 | 240 mm x 19 mm | 15,3 mm | 15 mm | 5000 Nit |
| VC-Strip | 16 x 1 | 400 mm x 20 mm | 17 mm | 25 mm | 4000 Nit |
| VC-Strip | 8 x 1 | 200 mm x 20 mm | 17 mm | 25 mm | 4000 Nit |
| VC-Strip 30 | 16 x 1 | 480 mm x 19 mm | 15,3 mm | 30 mm | 2750 Nit |
| VC-Strip 30 | 8 x 1 | 240 mm x 19 mm | 15,3 mm | 30 mm | 2750 Nit |
| VC-Strip 60 | 8 x 1 | 480 mm x 19 mm | 15,3 mm | 60 mm | 750 Nit |
| VC-Strip 60 | 4 x 1 | 240 mm x 19 mm | 15,3 mm | 60 mm | 750 Nit |

*Dimension include board-to-board gap required to maintain pixel pitch

VC-STRIP CUT LENGTHS

VC-Strip

16 pixels / 400mm is max length per module



Can be cut down to:

- 14 pixels 350mm
- 12 pixels 300mm
- 10 pixels 250mm
- 8 pixels 200mm

Maximum number of full-length modules per chain also applies for shortened VC-Strip modules