

VC-Dot 1

FULLY WEATHERIZED FLEXIBLE DIRECT-VIEW LED DOTS

SPEC SHEET



HIGHLIGHTS

- Creative LED Video element for building and stage integration
- Customizable pixel-pitch
- Bright and fully calibrated for optimal consistency

OVERVIEW

VC-Dot 1 is a lightweight string of individually controllable, bright Dots useful in creating customized LED video solutions with maximum artistic flexibility and a minimum of effort. Fully customizable and controllable via the award-winning P3 System Controller™ family and/or DMX512, it is a perfect solution for integrating LED video technology into façades, stage designs, ceilings or any other structure, indoors or outside.

Mapping video onto VC-Dots goes quickly and intuitively via the P3 System Controller. No need for complex setups and time-consuming addressing. VC-Dot 1 contains one LED and is available in an RGB color mixing version.

KEY MESSAGES

FAMILY OF ULTIMATE CREATIVE POSSIBILITIES

The VC-Dot family consist of three different sizes, which meets the needs of the project. White and smoked diffused domes are available for further creative looks.

EASY INFRASTRUCTURE

The VC-Dot products 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-Dot also accepts RDM/DMX, enabling even more versatile use.

FLEXIBLE INSTALLATION

The flexible string solution is fully customizable in terms of pixel pitch, number of VC-Dots, total length of string and lead-in cable. This allows for many creative designs in building or stage elements.

CALIBRATED COLOR AND INTENSITY

Each VC-Dot is calibrated for color and intensity consistency across the entire Martin creative LED range.

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FEATURES

- Flexible string-based direct-view LED lighting
- Perfect for façade or stage integration
- Individually controllable VC-Dots
- Up to 100 VC-Dots per string
- Customizable VC-Dot pixel pitch and string length
- Calibrated brightness and colors for each VC-Dot
- P3 and RDM/DMX controllable
- Intuitive mapping and addressing via P3 System Controller family
- Efficient and long-lasting
- IP67 rated for permanent outdoor or indoor use
- Simple infrastructure via VC-Feeder and P3 PowerPort
- Great number of mounting options using clips, brackets or profiles

ORDERING INFORMATION

- VC-Dot 1 RGB, 100 mm (4.0 in.) pitch, 100 pcs., 2 m (6.6 ft.) lead-in P/N 90357060
Strings with custom Dot pitch and lead-in length can be manufactured to special order

RELATED ITEMS

- Martin VC-Feeder with BBD connector P/N 90357041
- Martin P3 PowerPort 1000 IP Installation P/N 90721080
- Martin P3 PowerPort 1000 IP Rental P/N 90721070
- Martin P3 PowerPort 1500 P/N 90721040
- 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
- Martin IP66 Power Supply, 240 W P/N 90760330



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ORDERING INFORMATION ACCESSORIES

CABLE ACCESSORIES:

- VC-Dots ribbon cable extension, 10 m (32.8 ft.)..... P/N 90357230
- Quick splice connectors for VC-Dots ribbon cable extension, set of 15..... P/N 90357240
- VC-Dots ribbon cable termination cap, set of 10 P/N 91611400

DOMES ACCESSORIES:

- VC-Dot 1 Diffuser Domes, set of 10..... P/N 90357180
- VC-Dot 1 Diffuser Domes, Smoked, set of 10 P/N 91610110

MOUNTING ACCESSORIES FOR INDOOR USE ONLY:

- VC-Dot 1 Mounting Clips, set of 10..... P/N 90357210
- VC-Dot 1 Truss Clips, set of 10 P/N 91611371
- VC-Dot 1 Plastic Mounting Profile, Black, 1.2 m (4.0 ft.)..... P/N 91611410
- VC-Dot 1 Plastic Mounting Profile Cover, Black, 1.2 m (4.0 ft.)..... P/N 91611420
- VC-Dot 1 Plastic Mounting Profile, White, 1.2 m (4.0 ft.)..... P/N 91611430

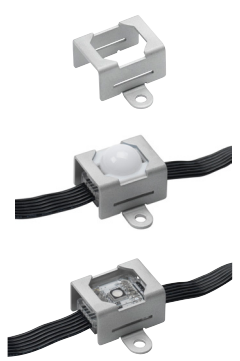

- VC-Dot 1 Plastic Mounting Profile Cover, White, 1.2 m (4.0 ft.)..... P/N 91611440

MOUNTING ACCESSORIES FOR OUTDOOR AND INDOOR USE:

- VC-Dot 1 Mounting Bracket..... P/N 91611301
- VC-Dot 1 Aluminum Mounting Profile, Black, 2 m (6.6 ft.)..... P/N 91611374
- VC-Dot 1 Mounting Profile Cover, Black, 2 m (6.6 ft.)..... P/N 91611375
- VC-Dot 1 Mounting Profile End Caps, Black, set of 10 P/N 91611376
- VC-Dot 1 Mounting Profile Cable Entry End Caps, Black, set of 10 P/N 91611377
- VC-Dot 1 Aluminum Mounting Profile, Grey, 2 m (6.6 ft.)..... P/N 91611386
- VC-Dot 1 Mounting Profile Cover, Grey, 2 m (6.6 ft.)..... P/N 91611387
- VC-Dot 1 Mounting Profile End Caps, Grey, set of 10 P/N 91611388
- VC-Dot 1 Mounting Profile Cable Entry End Caps, Grey, set of 10 P/N 91611389

MOUNTING OPTIONS

INDOOR AND OUTDOOR USAGE

| Aluminum Mounting Bracket | Aluminum Mounting Profile |
|---|---|
|  |  |
| Grey Color | Black or Grey Color |

INDOOR USAGE ONLY

| Plastic Mounting Clip | Plastic Mounting Profile |
|--|---|
|  |  |
| White Color | Black or White Color |

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TECHNICAL SPECIFICATIONS

CONTROL AND PROGRAMMING

| | |
|---------------------------------|--|
| Control options | Martin™ P3 System controller and/or DMX |
| DMX channels | 3 per RGB Dot, string or group |
| Control modes | Calibrated and raw |
| Setting and addressing | P3 System Controller or RDM-compliant controller |
| Control resolution | 16-bit (P3) or 8-bit (DMX) control of each color |
| Color and intensity calibration | Dot-level |
| DMX compliance | USITT DMX512-A |
| RDM compliance | ANSI/ESTA E1.20 |

OPTICS

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

*Figure obtained under manufacturer's test conditions

PHOTOMETRIC DATA

| | |
|--|-------------|
| Light source | One RGB LED |
| Luminous intensity, RGB, calibrated mode | 2 cd |
| Luminous intensity, RGB, raw mode | 2.5 cd |
| Total output, RGB, calibrated mode | 5.4 lm |
| Red output, RGB, calibrated mode | 1.5 lm |
| Green output, RGB, calibrated mode | 3.6 lm |
| Blue output, RGB, calibrated mode | 0.4 lm |
| Viewing angle | 127° x 127° |
| Viewing angle with dome | 180° x 180° |

CONSTRUCTION

| | |
|---------------------------|--|
| Dot | Clear polycarbonate, clear silicone filled |
| Diffuser dome | White or smoked translucent polycarbonate |
| Interconnecting cable | 6 x 20 AWG, black |
| Minimum cable bend radius | 26 mm (1.1 in.) |
| Protection rating | IP67 |
| RoHS compliant | |

INSTALLATION

| | |
|-------------|-----|
| Orientation | Any |
|-------------|-----|

CONNECTIONS

| | |
|---|------------------------------------|
| Power & data input to VC-Dot string from VC-Feeder™ | Custom 8-pin connector, IP67-rated |
|---|------------------------------------|

ELECTRICAL

| | |
|--|-------------------|
| Operating voltage | 15 VDC |
| Power and data converter | Martin VC-Feeder™ |
| Peak power consumption (at full intensity, full white) | 0.95 W per Dot |
| Typical power consumption (with typical video content) | 0.32 W per Dot |

Figures for typical video content are indicative only and will vary

THERMAL

| | |
|---|---------------|
| Cooling | Convection |
| Maximum ambient temperature (Ta max.) | 55° C (131°F) |
| Minimum ambient temperature (Ta min.) | -20° C (14°F) |
| Peak heat dissipation (calculated, at full intensity, full white) | 4.1 BTU/hr. |
| Typical heat dissipation (calculated, with typical video content) | 1.4 BTU/hr. |

Figures for typical video content are indicative only and will vary

APPROVALS

| | |
|-----------------|--|
| EU safety | EN 60950-1 |
| EU EMC | EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 |
| US safety | UL 60950-1 |
| US EMC | FCC Part 15 Class A |
| Canadian safety | CSA C22.2 No. 60950-1 |
| Canadian EMC | ICES-003 Class A |
| Australia/NZ | C-TICK N4241 |



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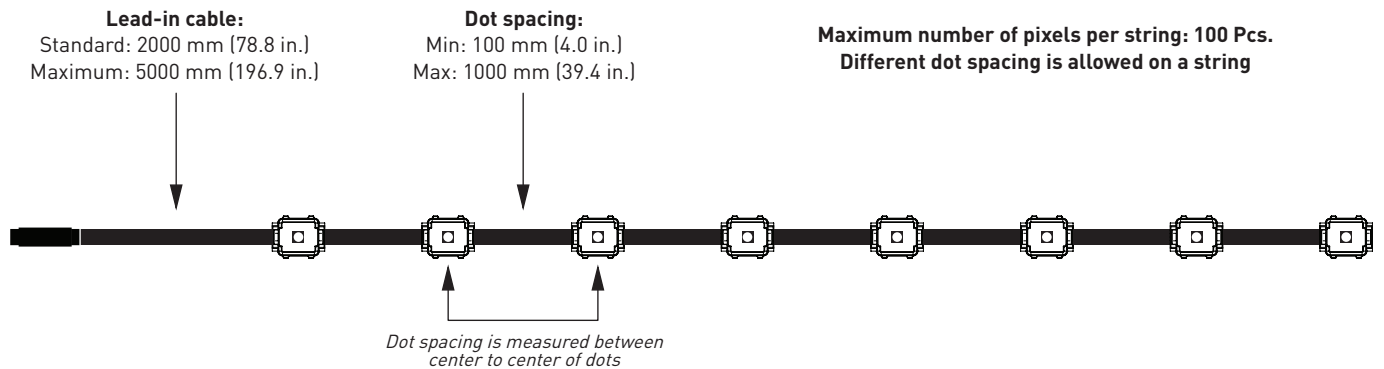
CONFIGURATION

2m LEAD-IN CABLE

| Dot Spacing [mm] | Max. Number Of Dots per String/ VC-Feeder [Pcs] | Total String Length |
|------------------|---|---------------------|
| 100 | 100 Std. Ver. | 11.9 m (39.0 ft.) |
| 200 | 100 | 21.8 m (71.5 ft.) |
| 300 | 100 | 31.7 m (104.0 ft.) |
| 400 | 100 | 41.6 m (136.5 ft.) |
| 500 | 100 | 51.5 m (169.0 ft.) |
| 600 | 100 | 61.4 m (201.4 ft.) |
| 700 | 100 | 71.3 m (233.9 ft.) |
| 800 | 100 | 81.2 m (266.4 ft.) |
| 900 | 95 | 86.6 m (284.1 ft.) |
| 1000 | 90 | 91 m (298.6 ft.) |

5m LEAD-IN CABLE (MAX)

| Dot Spacing [mm] | Max. Number Of Dots per String/ VC-Feeder [Pcs] | Total String Length |
|------------------|---|---------------------|
| 100 | 100 | 14.9 m (48.9 ft.) |
| 200 | 100 | 24.8 m (81.4 ft.) |
| 300 | 100 | 34.7 m (113.8 ft.) |
| 400 | 100 | 44.6 m (146.3 ft.) |
| 500 | 100 | 54.5 m (178.8 ft.) |
| 600 | 100 | 64.4 m (211.3 ft.) |
| 700 | 100 | 74.3 m (243.8 ft.) |
| 800 | 96 | 81 m (265.7 ft.) |
| 900 | 91 | 86 m (282.2 ft.) |
| 1000 | 87 | 91 m (298.6 ft.) |



Please contact your local sales person for customized VC-Dot strings.

Refer to system diagrams for detailed system configuration

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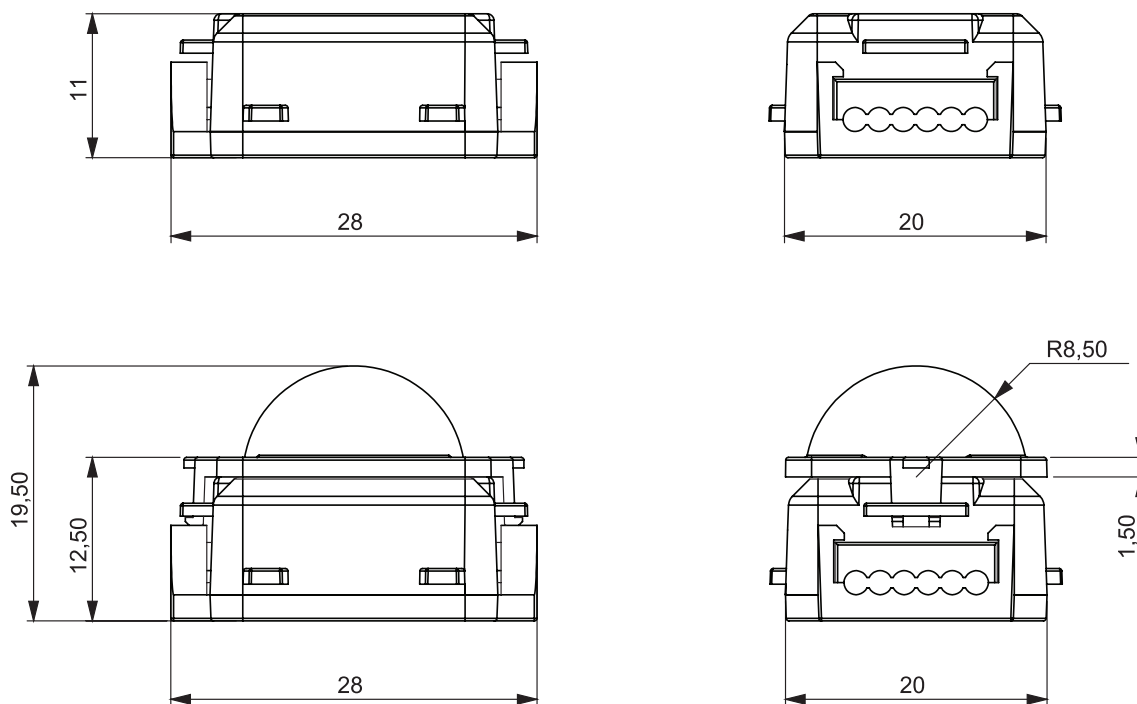
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DIMENSIONS

PHYSICAL

| | |
|--|---|
| Pixel dimensions | 28 x 23 x 11 mm (1.1 x 0.9 x 0.5 in.) |
| Pixel dimensions with dome | 28 mm x 23 mm x 20 mm (1.1 x 0.9 x 0.8 in.) |
| Weight | 1.3 kg (2.9 lbs.) for 100 Dots, 100 mm (4.0 in.) spacing, with 2 m (6.6 ft.) lead- in cable and connector |
| Maximum number of pixels per string | 100 |
| Standard pixel spacing (pitch)..... | 100 mm (4.0 in.) |
| Minimum pixel spacing (pitch)..... | 100 mm (3.9 in.) |
| Maximum pixel spacing (pitch)..... | 1000 mm (39.4 in.) |
| Standard lead-in cable length..... | 2000 mm (78.8 in.) |
| Maximum lead-in cable length..... | 5000 mm (196.9 in.) |

One pixel = one Dot



All dimensions are in mm

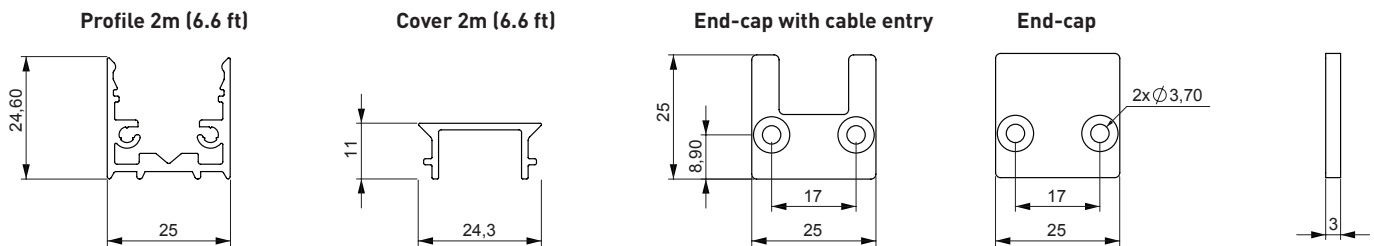
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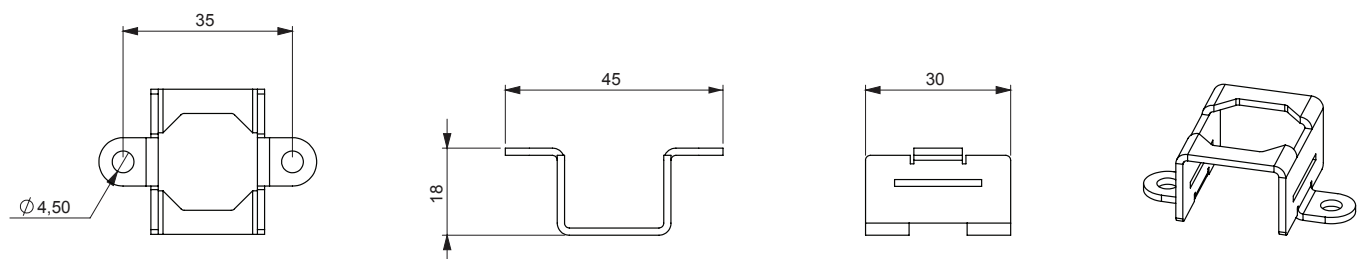
SPEC SHEET

INDOOR AND OUTDOOR USAGE

ALUMINUM MOUNTING PROFILE

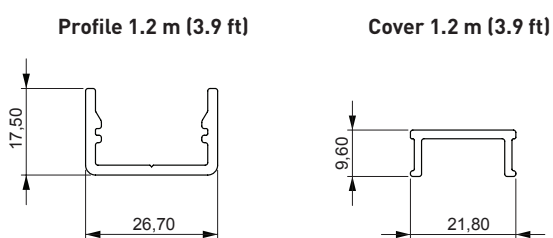


ALUMINUM MOUNTING BRACKET

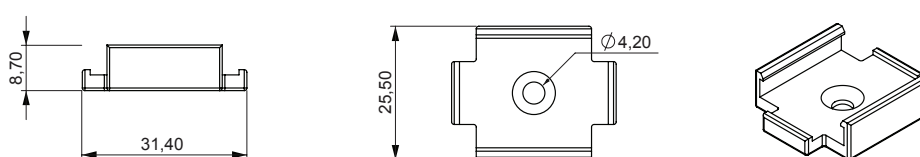


INDOOR USAGE ONLY

PLASTIC MOUNTING PROFILE



PLASTIC MOUNTING CLIP



All dimensions are in mm