VC-Dot 9

FULLY WEATHERIZED FLEXIBLE DIRECT-VIEW LED DOTS

HIGHLIGHTS

- Creative LED Video element for building and stage integration

- Customizable pixel-pitch

- Bright and fully calibrated for optimal consistency

OVERVIEW

VC-Dot 9 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 9 contains nine LEDs 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 36 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 9 RGB, 400 mm (15.8 in.) pitch, 36 pcs., 2 m (6.6 ft.) lead-in .... P/N 90357140
  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

DOME ACCESSORIES:

- VC-Dot 9 Diffuser Domes, set of 10.......................... P/N 90357200

- VC-Dot 9 Diffuser Domes, Smoked, set of 10 .... P/N 91610108

- VC-Dot 9 Diffuser Spheres, set of 10........................ P/N 91611530

MOUNTING ACCESSORIES FOR INDOOR USE ONLY:

- VC-Dot 9 Interior Mounting Clips, 10 pcs.................. P/N 90357170

- VC-Dot 9 Truss Clips, set of 10 .... P/N 91611373

- VC-Dot 9 Plastic Mounting Profile, Black, 1.2 m (4.0 ft.).. P/N 91611490

- VC-Dot 9 Plastic Mounting Profile Cover, Black, 1.2 m (4.0 ft.).. P/N 91611510

- VC-Dot 9 Plastic Mounting Profile, White, 1.2 m (4.0 ft.).. P/N 91611500

- VC-Dot 9 Plastic Mounting Profile Cover, White, 1.2 m (4.0 ft.).. P/N 91611520

MOUNTING ACCESSORIES FOR OUTDOOR AND INDOOR USE:

- VC-Dot 9 Mounting Bracket...................................... P/N 91611303

- VC-Dot 9 Aluminum Mounting Profile, Black, 2 m (6.6 ft.).. P/N 91611382

- VC-Dot 9 Mounting Profile Cover, Black, 2 m (6.6 ft.).. P/N 91611383

- VC-Dot 9 Mounting Profile End Caps, Black, set of 10 .... P/N 91611384

- VC-Dot 9 Mounting Profile Cable Entry End Caps, Black, set of 10 .... P/N 91611385

- VC-Dot 9 Aluminum Mounting Profile, Grey, 2 m (6.6 ft.).. P/N 91611394

- VC-Dot 9 Mounting Profile Cover, Grey, 2 m (6.6 ft.).. P/N 91611395

- VC-Dot 9 Mounting Profile End Caps, Grey, set of 10 .... P/N 91611396

- VC-Dot 9 Mounting Profile Cable Entry End Caps, Grey, set of 10 .... P/N 91611397

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.. Nine RGB LED

Luminous intensity, RGB, calibrated mode .... 18 cd

Luminous intensity, RGB, raw mode .... 22.5 cd

Total output, RGB, calibrated mode...... 55.3 lm

Red output, RGB, calibrated mode .... 14.8 lm

Green output, RGB, calibrated mode.... 36.9 lm

Blue output, RGB, calibrated mode ...... 3.6 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

Mounting clip.. White 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)....................... 2.75 W per Dot

Typical power consumption (with typical video content): 0.92 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).................... 12 BTU/hr.

Typical heat dissipation (calculated, with typical video content) .... 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
150	36	7.25 m (23.8 ft.)
200	36	14.6 m (47.9 ft.)
300	36	12.5 m (41.0 ft.)
400	36 Std. Ver.	16.0 m (52.5 ft.)
500	36	19.5 m (64.0 ft.)
600	35	22.4 m (73.5 ft.)
700	33	24.4 m (80.1 ft.)
800	31	26.0 m (85.3 ft.)
900	30	28.1 m (92.2 ft.)
1000	29	30.0 m (98.4 ft.)
1100	27	30.6 m (100.4 ft.)
1200	26	32.0 m (105.0 ft.)
1300	26	34.5 m (113.2 ft.)
1400	25	35.6 m (116.8 ft.)
1500	24	36.5 m (119.8 ft.)
1600	23	37.2 m (122.0 ft.)
1700	23	39.4 m (129.3 ft.)
1800	22	39.8 m (130.6 ft.)
1900	22	41.9 m (137.5 ft.)
2000	21	42.0 m (137.8 ft.)

5m LEAD-IN CABLE (MAX)

Dot Spacing [mm]	Max. Number Of Dots per String/ VC-Feeder [Pcs]	Total String Length
150	36	10.25 m (33.6 ft.)
200	36	12.0 m (39.4 ft.)
300	36	15.5 m (50.9 ft.)
400	36	19.0 m (62.3 ft.)
500	33	21.0 m (68.9 ft.)
600	31	23.0 m (75.5 ft.)
700	29	24.6 m (80.7 ft.)
800	28	26.6 m (87.3 ft.)
900	27	28.4 m (93.2 ft.)
1000	26	30.0 m (98.4 ft.)
1100	25	31.4 m (103.0 ft.)
1200	24	32.6 m (107.0 ft.)
1300	23	33.6 m (110.2 ft.)
1400	23	35.8 m (117.5 ft.)
1500	21	35.0 m (114.8 ft.)
1600	21	37.0 m (121.4 ft.)
1700	21	39.0 m (128.0 ft.)
1800	20	39.2 m (128.6 ft.)
1900	20	41.1 m (134.8 ft.)
2000	20	43.0 m (141.1 ft.)

Lead-in cable:
Standard: 2000 mm (78.8 in.)
Maximum: 5000 mm (196.9 in.)

Dot spacing:
Min: 150 mm (5.9 in.)
Max: 2000 mm (78.8 in.)

**Maximum number of pixels per string: 36 Pcs.
Different dot spacing is allowed on a string**

Dot spacing is measured between center to center of dots
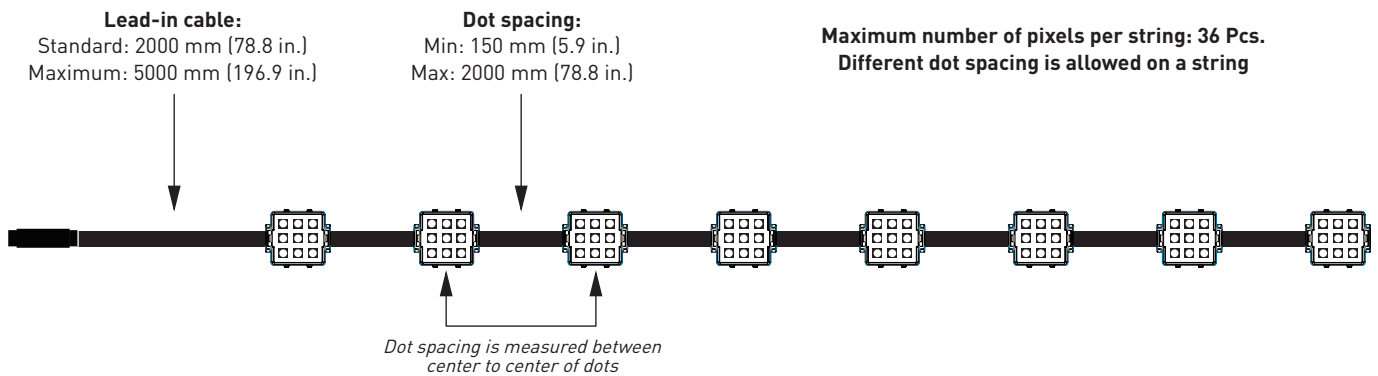
Please contact your local sales person for customized VC-Dot strings.

*Refer to system diagrams for detailed system configuration*

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DIMENSIONS

PHYSICAL

Pixel dimensions .... 48 x 40 x 13 mm (1.9 x 1.6 x 0.6 in.)

Pixel dimensions with dome .... 48 x 40 x 31 mm (1.9 x 1.6 x 1.3 in.)

Weight .... 1.8 kg (4.0 lbs.) for 36 Dots, 400 mm (15.8 in.) spacing, with 2 m (6.6 ft.) lead-in cable and connector

Maximum number of pixels per string 36

Standard pixel spacing (pitch)............... 400 mm (15.8 in.)

Minimum pixel spacing (pitch) .... 150 mm (5.9 in.)

Maximum pixel spacing (pitch) .... 2000 mm (78.8 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
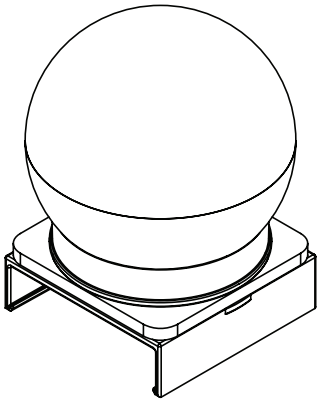
Diffuser Sphere - Indoor only
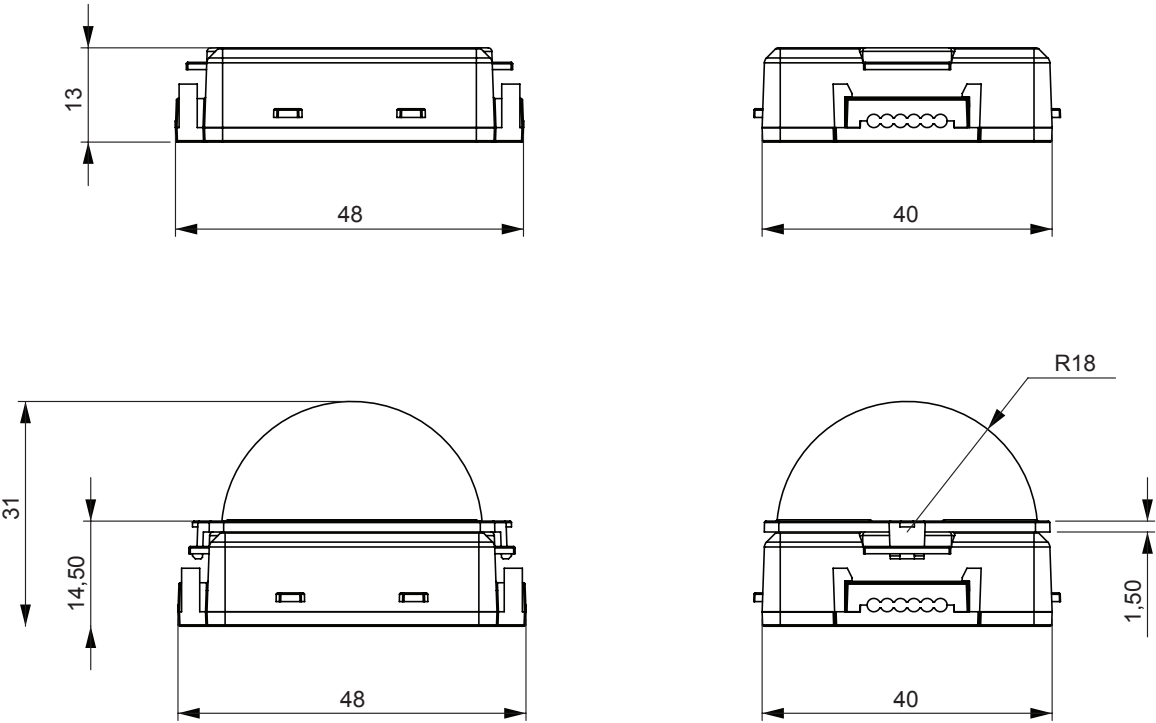
All dimensions are in mm

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INDOOR AND OUTDOOR USAGE

ALUMINUM MOUNTING PROFILE

Profile 2m (6.6 ft)   **Cover 2m (6.6 ft)**   **End-cap with cable entry**   **End-cap**
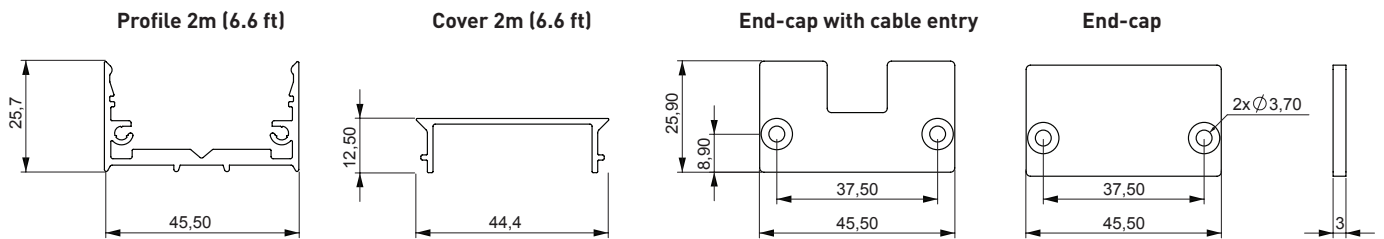
ALUMINUM MOUNTING BRACKET

INDOOR USAGE ONLY

PLASTIC MOUNTING PROFILE

Profile 1.2 m (3.9 ft)   **Cover 1.2 m (3.9 ft)**
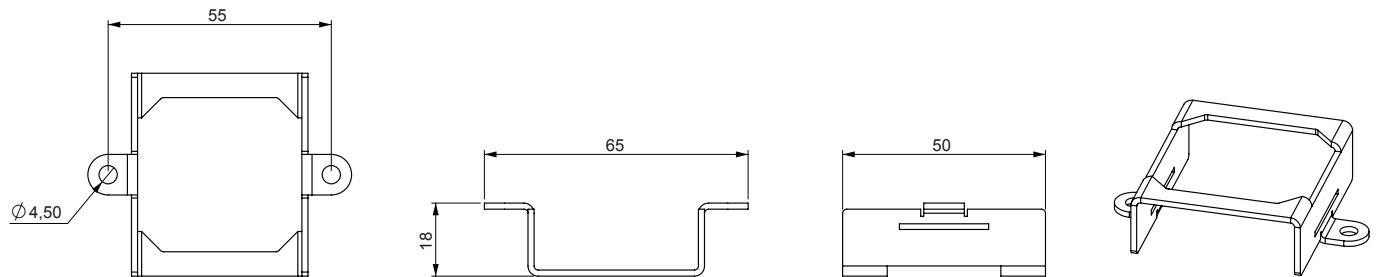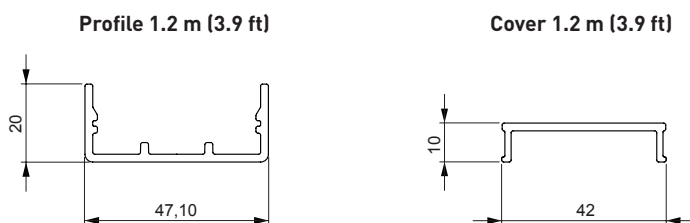
PLASTIC MOUNTING CLIP

All dimensions are in mm

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