

VC-Dot 4

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 4 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 4 contains four 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 64 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 4 RGB, 200 mm (7.9 in.) pitch, 64 pcs., 2 m (6.6 ft.) lead-in P/N 90357100
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 4 Diffuser Domes, set of 10..... P/N 90357190
- VC-Dot 4 Diffuser Domes, Smoked, set of 10 P/N 91610109

MOUNTING ACCESSORIES FOR INDOOR USE ONLY:

- VC-Dot 4 Interior Mounting Clips, 10 pcs..... P/N 90357220
- VC-Dot 4 Truss Clips, set of 10..... P/N 91611372
- VC-Dot 4 Plastic Mounting Profile, Black, 1.2 m (4.0 ft.)..... P/N 91611450
- VC-Dot 4 Plastic Mounting Profile Cover, Black, 1.2 m (4.0 ft.)..... P/N 91611470
- VC-Dot 4 Plastic Mounting Profile, White, 1.2 m (4.0 ft.)..... P/N 91611460



- VC-Dot 4 Plastic Mounting Profile Cover, White, 1.2 m (4.0 ft.)..... P/N 91611480

MOUNTING ACCESSORIES FOR OUTDOOR AND INDOOR USE:



- VC-Dot 4 Mounting Bracket..... P/N 91611302
- VC-Dot 4 Aluminum Mounting Profile, Black, 2 m (6.6 ft.)..... P/N 91611378
- VC-Dot 4 Mounting Profile Cover, Black, 2 m (6.6 ft.)..... P/N 91611379
- VC-Dot 4 Mounting Profile End Caps, Black, set of 10 P/N 91611380
- VC-Dot 4 Mounting Profile Cable Entry End Caps, Black, set of 10 P/N 91611381
- VC-Dot 4 Aluminum Mounting Profile, Grey, 2 m (6.6 ft.)..... P/N 91611390
- VC-Dot 4 Mounting Profile Cover, Grey, 2 m (6.6 ft.)..... P/N 91611391
- VC-Dot 4 Mounting Profile End Caps, Grey, set of 10 P/N 91611392
- VC-Dot 4 Mounting Profile Cable Entry End Caps, Grey, set of 10 P/N 91611393

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	Four RGB LED
Luminous intensity, RGB, calibrated mode	6 cd
Luminous intensity, RGB, raw mode	7.5 cd
Total output, RGB, calibrated mode	18.8 lm
Red output, RGB, calibrated mode	5.2 lm
Green output, RGB, calibrated mode	12.3 lm
Blue output, RGB, calibrated mode	1.4 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
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
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CONNECTIONS

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

Operating voltage	15 VDC
Power and data converter	Martin VC-Feeder™
Peak power consumption (at full intensity, full white)	1.50 W per Dot
Typical power consumption (with typical video content)	0.50 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)	6.5 BTU/hr.
Typical heat dissipation (calculated, with typical video content)	2.5 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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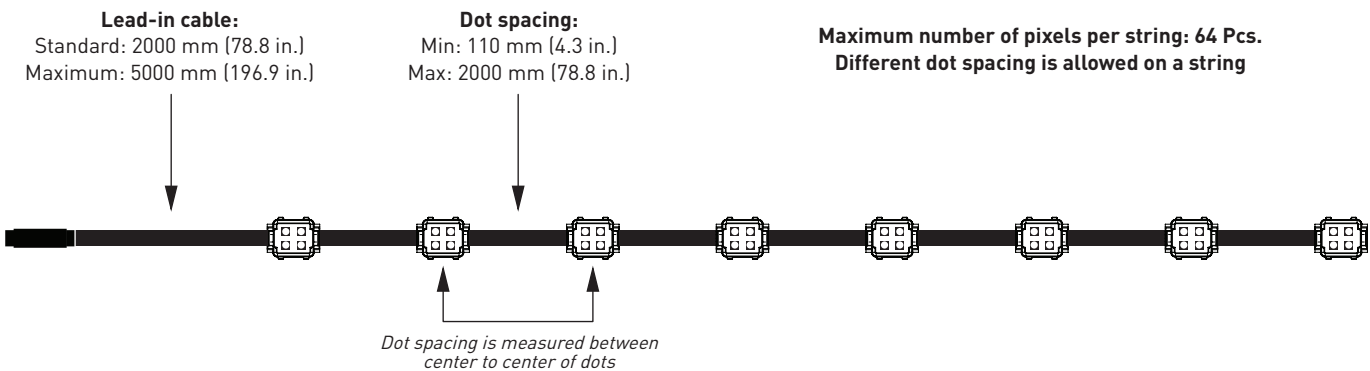
CONFIGURATION

2m LEAD-IN CABLE

Dot Spacing [mm]	Max. Number Of Dots per String/ VC-Feeder [Pcs]	Total String Length
110	64	8.93 m (29.3 ft.)
200	64 Std. Ver.	14.6 m (47.9 ft.)
300	64	20.9 m (68.6 ft.)
400	64	27.2 m (89.2 ft.)
500	64	33.5 m (109.9 ft.)
600	64	39.8 m (130.6 ft.)
700	64	46.1 m (151.2 ft.)
800	64	52.4 m (171.9 ft.)
900	62	56.9 m (186.7 ft.)
1000	59	60.0 m (196.9 ft.)
1100	57	63.6 m (208.7 ft.)
1200	54	65.6 m (215.2 ft.)
1300	53	69.6 m (228.3 ft.)
1400	51	72.0 m (236.2 ft.)
1500	49	74.0 m (242.8 ft.)
1600	48	77.2 m (253.3 ft.)
1700	46	78.5 m (257.5 ft.)
1800	45	81.2 m (266.4 ft.)
1900	44	83.7 m (274.6 ft.)
2000	43	86.0 m (282.2 ft.)

5m LEAD-IN CABLE (MAX)

Dot Spacing [mm]	Max. Number Of Dots per String/ VC-Feeder [Pcs]	Total String Length
110	64	11.93 m (39.1 ft.)
200	64	17.6 m (57.7 ft.)
300	64	23.9 m (78.4 ft.)
400	64	30.2 m (99.1 ft.)
500	64	36.5 m (119.8 ft.)
600	64	42.8 m (140.4 ft.)
700	64	49.1 m (161.1 ft.)
800	62	53.8 m (176.5 ft.)
900	59	57.2 m (187.7 ft.)
1000	56	60.0 m (196.9 ft.)
1100	54	63.3 m (207.7 ft.)
1200	52	66.2 m (217.2 ft.)
1300	50	68.7 m (225.4 ft.)
1400	49	72.2 m (236.9 ft.)
1500	47	74.0 m (242.8 ft.)
1600	46	77.0 m (252.6 ft.)
1700	45	79.8 m (261.8 ft.)
1800	43	80.6 m (264.4 ft.)
1900	42	82.9 m (272.0 ft.)
2000	41	85.0 m (278.9 ft.)



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

Refer to system diagrams for detailed system configuration

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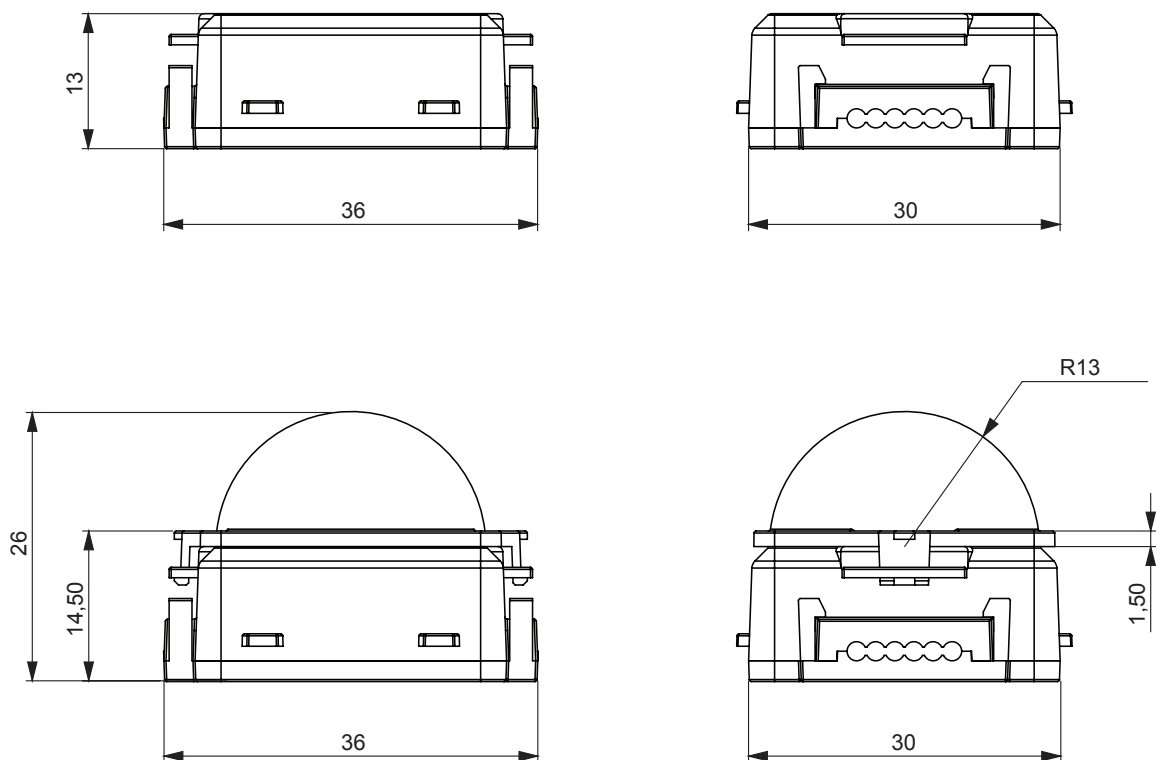
SPEC SHEET

DIMENSIONS

PHYSICAL

Pixel dimensions	36 x 30 x 13 mm (1.5 x 1.2 x 0.6 in.)
Pixel dimensions with dome	36 mm x 30 mm x 27 mm (1.5 x 1.2 x 1.1 in.)
Weight	1.8 kg (4.0 lbs.) for 64 Dots, 200 mm (7.9 in.) spacing, with 2 m (6.6 ft.) lead-in cable and connector
Maximum number of pixels per string	64
Standard pixel spacing (pitch)	200 mm (7.9 in.)
Minimum pixel spacing (pitch)	110 mm (4.3 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



All dimensions are in mm

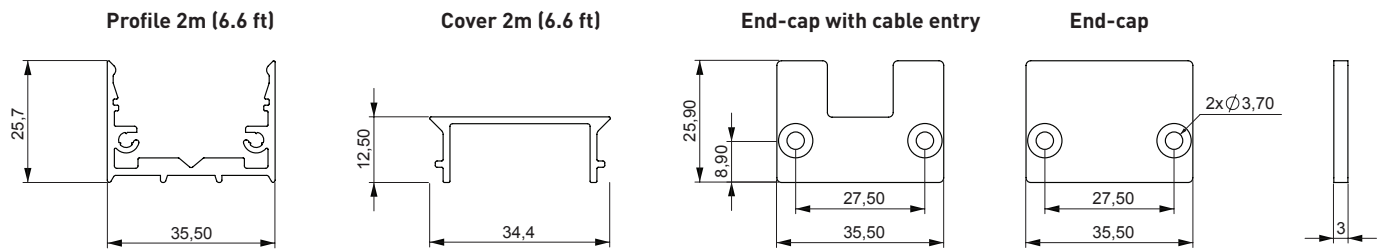
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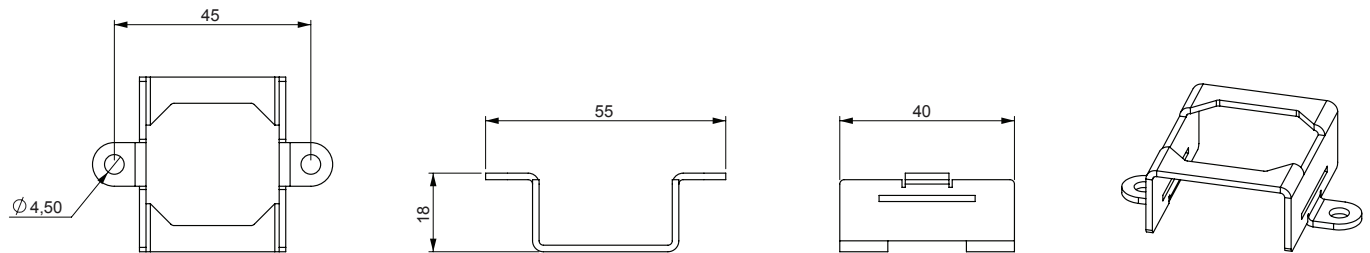
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INDOOR AND OUTDOOR USAGE

ALUMINUM MOUNTING PROFILE

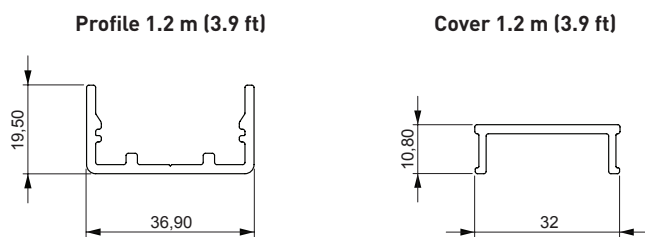


ALUMINUM MOUNTING BRACKET

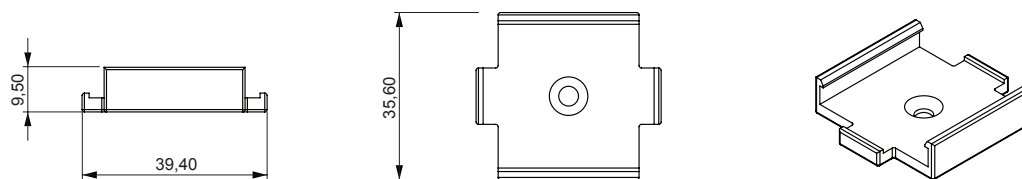


INDOOR USAGE ONLY

PLASTIC MOUNTING PROFILE



PLASTIC MOUNTING CLIP



All dimensions are in mm

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