

# EXTERIOR DOT-4 PRO

OUTDOOR-RATED, STRING-BASED RGBW LED DOTS - MEDIUM

SPEC SHEET



## OVERVIEW

**Exterior Dot-4 Pro** is a lightweight string of individually-controllable RGBW-based Dots, useful in creating customized LED video solutions with maximum artistic flexibility and minimal effort. Each Exterior Dot is color- and brightness-calibrated for superior visual consistency across the entire installation. **Exterior Dot-4 Pro** is controllable via Martin P3 System Controllers or any sACN or Art-Net-based controller. It is the perfect solution for integrating LED video technology into façades, landmarks, architectural elements or any other structure, indoors or out. **Exterior Dot-4 Pro** strings are fully configurable in terms of number of Dots, pixel pitch, and length of lead-in cable for perfect integration into architectural elements.

Mapping video onto Exterior Dots is quick and intuitive via the P3 System Controller, eliminating the need for complex setups and time-consuming addressing.

Each **Exterior Dot-4 Pro** includes four RGBW LEDs with a total luminous intensity of 26 candela.

## KEY MESSAGES

### HIGHER OUTPUT

Exterior Dot Pro models deliver premium brightness and extraordinary light quality, based on highly efficient RGBW LEDs.

### EFFICIENT COLOR BOOST

Exterior Dot Pro color boost technology is extremely efficient, resulting in higher lumen output on saturated and mixed colors than traditional systems.

### SMART DESIGN KIT

The Exterior Dot Pro solution includes a variety of smart accessories to empower lighting designers with a smart design kit of creative options to support a wide array of applications.

### MULTIPLE CONTROL OPTIONS

Exterior Dot Pro simplifies control by integrating industry standard Art-Net and sACN control protocols, or Martin's award-winning P3 control protocol. A smart, stand-alone mode via Martin Companion is also included.

### SIMPLE YET ROBUST INFRASTRUCTURE

Exterior Dot Pro utilizes a simple, yet robust flexible infrastructure to deliver more cost-effective system solutions and easier installs, allowing for longer daisy-chains and high fixture runs.

### DESIGNED FOR PERMANENT, OUTDOOR USE

The Exterior Dot Pro family meet rigorous environmental standards and are backed by a 5-year warranty. This family is designed for permanent outdoor and outdoor installations.

# EXTERIOR DOT-4 PRO

OUTDOOR-RATED, STRING-BASED RGBW LED DOTS - MEDIUM

SPEC SHEET

## PRODUCT FEATURES

- Flexible, string-based, direct-view LED lighting
- Powered via Exterior AC-Feeder or Exterior DC-Feeder
- Fully-weatherized housing (IP67, IK08 and C-5 High corrosion rating)
- Martin P3/Art-Net/sACN compatible (automatic protocol detection)
- Setup and Addressing via RDM over Art-Net or Martin P3
- Real-time status feedback via RDM over Art-Net and Martin P3
- Individually-controllable RGBW Dots
- Color boost for bright, saturated, and mixed colors
- Dedicated color temperature control channel
- In-built Effect Macros (FX) for easy creation of stunning looks
- Up to 64 Dots per string
- Reduced power mode for cost-effective systems
- Configurable number of dots, pixel pitch, and lead-in cable length
- Superior color and brightness consistency based on factory calibration
- Stand-alone programming with up to 20 scenes
- Intuitive mapping and addressing via P3 System Controller family
- Smart accessories such as diffused dome and glare shield
- Easy and safe mounting options using brackets or profiles
- Hot-pluggable string connector
- Shipped in FSC-certified cardboard packaging
- 5-year warranty

## ORDERING INFORMATION

- Exterior Dot-4 Pro, 200mm, 64pcs, 2m lead ..... P/N MAR-90580001

*Other configurations available upon request*

## RELATED ITEMS

- Exterior AC-Feeder ..... P/N MAR-90580003
- Exterior DC-Feeder ..... P/N MAR-90580000
- Double string cable adapter..... P/N MAR-90580024
- Martin P3 PowerPort 2000 ..... P/N MAR-90721200
- Martin P3 PowerPort 500 IP Rental..... P/N MAR-90721201
- Martin P3 PowerPort 500 IP Install ..... P/N MAR-90721202
- Martin DCE PSU 240 IP ..... P/N MAR-90721203
- DCE DataSplitterBooster IP ..... P/N MAR-90721204
- Martin P3-175 System Controller ..... P/N MAR-90721100
- Martin P3-275 System Controller ..... P/N MAR-90721101
- Martin P3-PC System Controller ..... Free download from martin.com
- Martin Companion Software ..... Free download from martin.com

## ACCESSORIES

- Dome kit Dot-4 Pro, grey, set of 10..... P/N MAR-90580012
- Dome kit Dot-4 Pro, black, set of 10..... P/N MAR-90580015
- Mnt bracket Dot-4 Pro, grey, set of 10..... P/N MAR-90580009
- Mnt bracket Dot-4 Pro, black, set of 10..... P/N MAR-90580033
- Glare kit Dot-4 Pro, grey, set of 10..... P/N MAR-90580006
- Glare kit Dot-4 Pro, black, set of 10..... P/N MAR-90580030
- Mounting profile Dot-4 Pro, 2 meter..... P/N MAR-90580018
- End cap mounting profile Dot-4 Pro, set of 2..... P/N MAR-90580027
- Splice connector, set of 3 ..... P/N MAR-90580020
- String termination cap, set of 2 ..... P/N MAR-90580021
- Loose ribbon cable (10 meter) ..... P/N MAR-90580022
- Active Lead-In Cable Extender (5 meter) ..... P/N MAR-90580023



# EXTERIOR DOT-4 PRO

OUTDOOR-RATED, STRING-BASED RGBW LED DOTS - MEDIUM

SPEC SHEET

## TECHNICAL SPECIFICATIONS

### CONTROL AND PROGRAMMING

Control protocols	Martin P3, Art-Net or sACN
Protocol detection	Automatic
RDM Compliance (over Art-Net)	ANSI/ESTA E1.20
Art-Net Compliance	Art-Net 1, 2, 3 and 4; including RDM over Art-Net
sACN Compliance	ANSI E1.31 – 2016
Martin P3 Compliance	P3 System Controller Software 6.1.0 or newer
Control resolution	16-bit (P3) or 8-bit (DMX) control of each color
DMX Modes	Standard, Extended, Raw, PixelMap (6 pixel modes)
DMX Channels	6, 12, 4, 3, 12, 24, 48, 96, 192

### OPTICS

Light source	4 RGBW LEDs
Minimum LED lifetime	100,000 hours (to >70% luminous output)*
LED manufacturer	Lumileds
Binning	Tight color and flux binning
Calibration	Full Gamut Pixel Calibration

\*Figure obtained under manufacturer's test conditions at  $T_a = 25^\circ C$

### PHOTOMETRIC DATA

Viewing angle Clear front	150°
Cut-off angle glare shield	120°
Viewing angle Diffused dome	180°

### LUMINOUS INTENSITY

	Clear front	Diffused dome
Full@6500K	26 cd	5 cd

### LUMINOUS OUTPUT\*

	Clear front	Diffused dome
Full@6500K	71 lm	29 lm
Red	22 lm	10 lm
Green	65 lm	28 lm
Blue	13 lm	5 lm

\* All Photometric Data measured in steady state (30 minutes warm-up time) at 25°C ambient.

### CONSTRUCTION

Dot	Clear polycarbonate, black silicone filled
Diffuser dome	White translucent polycarbonate
Glare shield and bracket	Traffic grey RAL 7042 polycarbonate
Interconnecting cable	6 x 20 AWG, black
Minimum cable bend radius	15 mm (0.59 in.)
Protection rating	IP67
Corrosion resistance	C5 High (ISO 12944-6)
Vibration resistance	1.0g, Sinusoidal (IEC 60068-2-6), 0.7g RMS Random (IEC 60068-2-64), 3.0g (ANSI C136-31)

### INSTALLATION

Mounting Points	Mounting bracket, mounting profile, four integrated mounting holes for cable ties
Orientation	Any

### CONNECTIONS

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

### ELECTRICAL

Power and data converter	Exterior AC-Feeder or Exterior DC-Feeder
Operating voltage	15 VDC

### POWER CONSUMPTION

Maximum	1.5 W per Dot
Typical	0.5 W per Dot
Idle	Refer to Exterior Feeder

\* Measurements made at nominal voltage. Allow for a deviation of +/- 10%. Idle: all LEDs at zero intensity

Maximum at full intensity, full white, Typical at video content, Idle at zero intensity

### THERMAL

Cooling	Convection
Maximum ambient temperature ( $T_a$ max.)	55° C (131° F)
Minimum operating temperature ( $T_a$ min)	-30° C (-22° F)
Peak heat dissipation (calculated, at full intensity, full white)	5.1 BTU/hr.
Typical heat dissipation (calculated, with typical video content)	1.7 BTU/hr.*

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

# EXTERIOR DOT-4 PRO

OUTDOOR-RATED, STRING-BASED RGBW LED DOTS - MEDIUM

SPEC SHEET

## TECHNICAL SPECIFICATIONS

### ENVIRONMENTAL

RoHS .....	Compliant
REACH.....	Compliant
WEEE.....	Compliant
Proposition 65.....	Compliant
Packaging .....	FSC certified cardboard inlay and outer packaging
Efficacy (max output).....	47 lm/W
LWR* .....	1535 lm/kg (590 lm/lb)

\*LWR = Lumen-to-Weight Ratio

### APPROVALS

Global CB Certification/IECEE .....	IEC 62368-1
EU Safety.....	EN62638-1
EU EMC .....	EN 55032, EN55035, EN 61000-3-2, EN 61000-3-3
US safety.....	UL 62638-1
US EMC .....	47 CFR Part 15 Class A
Canadian safety .....	CSA C22.2 No. 60238-1
Australia/NZ .....	RCM
United Kingdom.....	UKCA
India .....	BIS IS 10322 (Part5/section7)



## DIMENSIONS

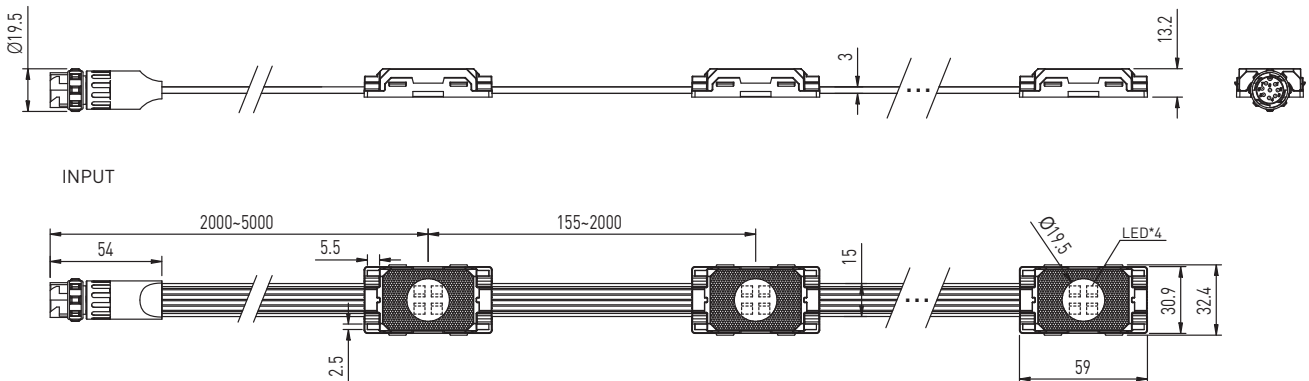
### PHYSICAL

Pixel dimensions .....	59 x 32.4 x 13.2 mm (2.3 x 1.27 x 0.52 in.)
Pixel dimensions with dome .....	59 mm x 28.7 mm x 28.8 mm (2.3 x 1.27 x 1.13 in.)
Weight.....	2.96 kg (6.5 lbs.) for 64 Dots, 200 mm [7.9 in.] spacing, with 2 m (6.6 ft.) lead-in cable and connector

### CONFIGURABLE STRING-BASED DOTS\*

Maximum number of pixels per string .....	64
Standard pixel spacing (pitch).....	200 mm [7.9 in.]
Minimum pixel spacing (pitch) .....	155 mm [6.1 in.]
Maximum pixel spacing (pitch) .....	2000 mm [78.8 in.]
Standard lead-in cable length.....	2 m [78.8 in.]
Maximum lead-in cable length .....	5 m [196.9 in.]**

\* Refer to system diagram for configuration details  
\*\*Up to 10 m using Active Lead-In Cable Extender



All dimensions are in mm

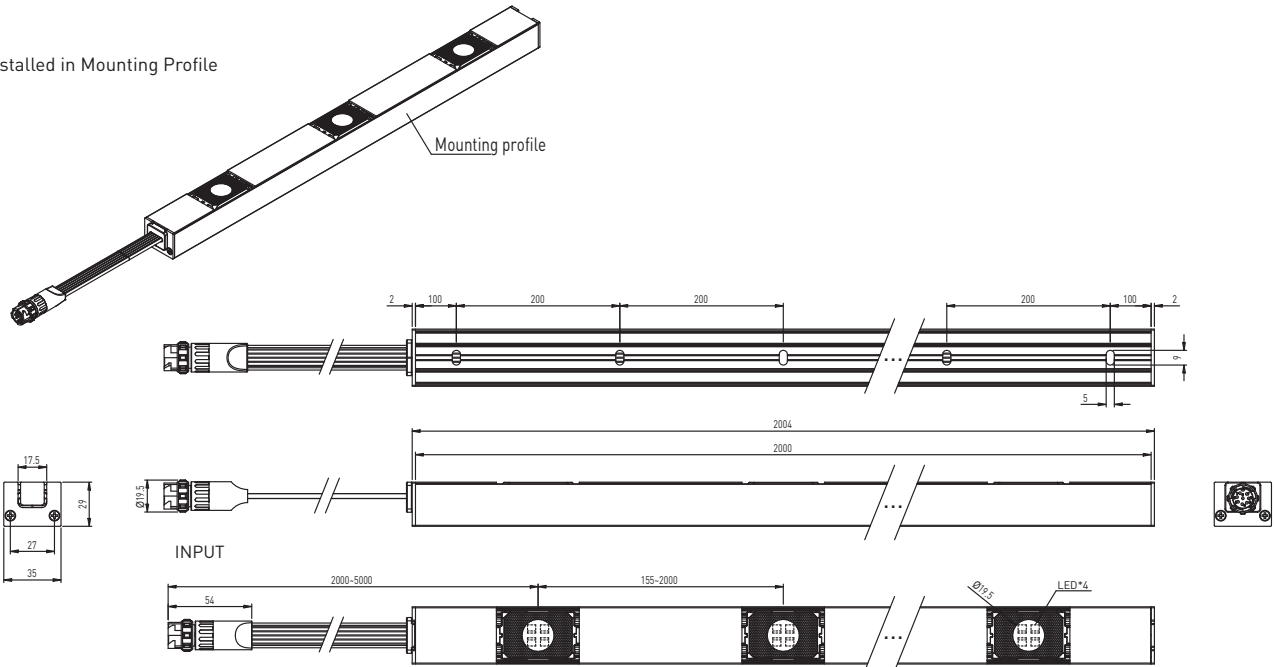
# EXTERIOR DOT-4 PRO

OUTDOOR-RATED, STRING-BASED RGBW LED DOTS - MEDIUM

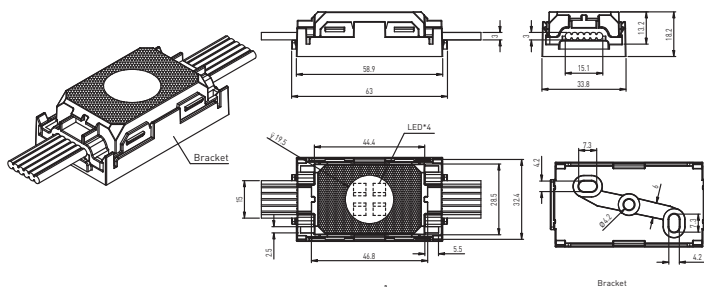
SPEC SHEET

## DIMENSIONS (Cont.)

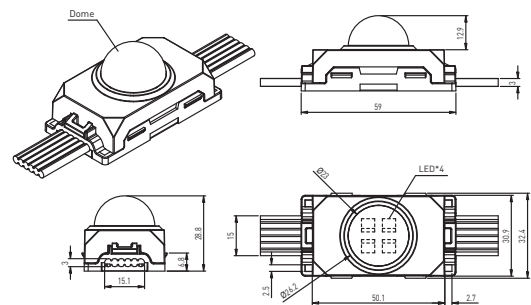
Installed in Mounting Profile



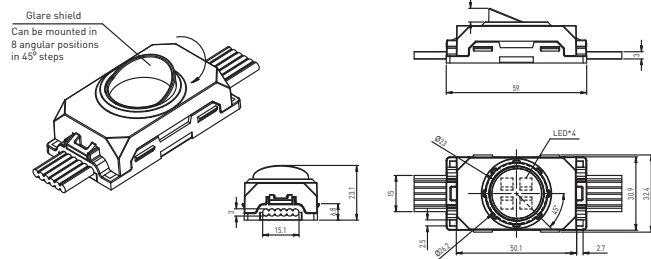
Installed with Mounting Bracket



Installed with Mounting Bracket and Dome



Installed with Mounting Bracket and Glare Shield



All dimensions are in mm