EXTERIOR DOT-HP PRO

OUTDOOR-RATED, HIGH-OUTPUT RGBW LED CONNECTOR-BASED DOT

OVERVIEW

The Martin **Exterior Dot-HP Pro** is a bright, outdoor-rated RGBW Dot, designed to create media facades or perimeter lighting on large buildings and structures for long-distance viewing. Each **Exterior Dot-HP Pro** is color- and brightness-calibrated for superior visual consistency across the entire installation. **Exterior Dot-HP 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 facades, landmarks, architectural elements or any other structure, indoors or out. The **Exterior Dot-HP Pro** comes with hybrid In/Out connectors for easy and versatile installations options.

Mapping video onto **Exterior Dot-HP Pro** is quick and intuitive via the P3 System Controller, eliminating the need for complex setups and time-consuming addressing. Each **Exterior Dot-HP Pro** includes 16 RGBW LEDs with a total luminous intensity of 90 candela.

Unifying unparalleled performance, adaptability, and intuitive operation, the Exterior Dot Pro family doesn't just enable lighting designers and professionals to surpass the limitations of traditional systems, it inspires them to redefine the boundaries of creative video design..

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 indoor and outdoor installations.

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SPEC SHEET

PRODUCT FEATURES

- Powerful, connector-based, direct-view LED lighting
- Powered directly from Martin P3 PowerPort or third-party 48 VDC PSU
- Large footprint of 78 mm diameter with clear front or diffused dome.
- Perfect for facade or stage integration
- Fully-weatherized housing (IP66, 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 75 Exterior Dot-HP Pro units can be daisy-chained
- Reduced power mode for longer cable runs and fixture counts
- Combined power/data input over single cable (hot-pluggable)
- 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
- Shipped in FSC-certified carboard packaging
- 5-year warranty

RELATED ITEMS

- 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

- DC + Ethernet Cable, DCE to DCE 1 m (3.3 ft.) ...P/N MAR-91700100
- DC + Ethernet Cable, DCE to DCE 2.5 m (8.2 ft.)..................................P/N MAR-91700101
- DC + Ethernet Cable, DCE to DCE 5 m (16.4 ft.) .P/N MAR-91700102
- DC + Ethernet Cable,DCE to DCE 10 m (32.8 ft.) P/N MAR-91700103
- DC + Ethernet Cable,DCE to DCE 25 m (82.1 ft.) P/N MAR-91700104
- DC + Ethernet Cable 100m.................................P/N MAR-91700105
- DC + Ethernet Cable LSZH 100m........................P/N MAR-91700106
- Field-installable Connector DCE Male ....P/N MAR-91700107
- Field-installable Connector DCE Female...........P/N MAR-91700108
- DC + Ethernet Adapter DCE Male-Male ....P/N MAR-91700111
- DC + Ethernet Adapter DCE Female-Female.....P/N MAR-91700112
- DC + Ethernet Adapter Ether+Wires to DCE ......P/N MAR-91700113
- DC + Ethernet Adapter DCE to EtherCon ....P/N MAR-91700114
- Closing Cap Male DCE Connector.......................P/N MAR-91700109
- Closing Cap Female DCE Connector ....P/N MAR-91700110
- Dot-HP Pro Flange Bracket, 10 pcs....................P/N MAR-90581012
- Mounting Profile Kit, Dot-HP Pro..................................P/N 9161172

ORDERING INFORMATION

- Exterior Dot-HP Pro clear front, grey in cardboard box .... P/N MAR-90581000
- Exterior Dot-HP Pro diffused dome, grey in cardboard box .... P/N MAR-90581010

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TECHNICAL SPECIFICATIONS

CONTROL AND PROGRAMMING

Control protocols...................................Martin P3, Art-Net or sACN

Protocol detection ....Automatic

RDM compliance....................................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 6.0.3 or newer

Ethernet Transceiver............................10/100Mbit

Control resolution ....16-bit (P3) or 8-bit (DMX) control of each color

DMX Modes ....Standard, Extended, Raw, RGB or PixelMap

DMX Channels 6, 12, 4, 3, 48

Fixture identification ....User-settable ID number

User interface.......................................Magnetic sensor for local diagnostics and testing

Setting and addressing ....Martin P3 System controller or RDM (over Art-Net)-compliant controller

Firmware update ....Via Ethernet using Martin Companion / P3 System Controller

OPTICS

Light source ....16 x RGBW LEDs

Minimum LED lifetime...........................100,000 hours (to >70% luminous output)*

LED manufacturer ....LumiLeds

Binning..Tight color and flux binning

Calibration ....Full Gamut Color Calibration

Figure obtained under manufacturer's test conditions at Ta 25°C

PHOTOMETRIC DATA

Color resolution....................................16 bits per color (64 bit per pixel)

Dot pitch*..78 mm - 500 mm (fixture to fixture)

CRI (Color Rendering Index) ....> 70

Color Temperature ....2,000 — 12,000 K

Viewing angle Clear front......................150°

Viewing angle Diffused dome................180°

LUMINOUS INTENSITY

	Clear front	Diffused dome
Full@6500K	90 cd	56 cd

PHOTOMETRIC DATA (Cont.)

LUMINOUS OUTPUT**

	Clear front	Diffused dome
Full@6500K:	260 lm	175 lm
Red:	80 lm	55 lm
Green:	230 lm	155 lm
Blue:	60 lm	40 lm

* Dot pitch can be extended using hybrid DCE cables.

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

CONSTRUCTION

Color..Traffic Grey RAL 7042 (custom colors available on request)

Base ....Cast aluminum

Surface treatment ....Anodized and electrostatic powder-coated

Effective Projected Area (EPA)..............0.007 m²

Protection rating...................................IP67

Impact resistance IK08

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....................................Direct surface mount or accessory mounting plate

Orientation..Any

CONNECTIONS

Input..DCE connector cable tail for Power & data input, IP67

Output ....DCE connector cable tail for Power & data thru, IP67

Connection..Hot-pluggable

Max. daisy-chain (Full mode)................75 fixtures including 50 m cable

Max. daisy-chain (Half power mode) ....120 fixtures including 50 m cable

* Refer to system diagram for details on fixture run limitations.

ELECTRICAL

Nominal input voltage ....48 VDC +/- 4%

Power supply options ....Martin P3 PowerPort 2000, P3 PowerPort 500 IP Install, P3 PowerPort 500 IP Rental, Martin DCE PSU 240 IP or generic 48 VDC PSU

Surge protection...................................4 KV

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DIMENSIONS

ELECTRICAL (Cont.)

POWER CONSUMPTION

Maximum	5.5 W in full mode
Maximum	2.8 W in reduced mode
Idle	0.8 W
Hibernation	0.4 W

* Measurements made at nominal voltage. Allow for a deviation of +/- 10%. Idle: all LEDs at zero intensity. Maximum at full intensity, full white. Idle at zero intensity. Hibernation: zero intensity, wake-up procedure to re-use fixture.

THERMAL

Cooling	Convection
Total heat dissipation (calculated, +/- 10%)	17 BTU/hr.
Max ambient temperature (Ta max.)	55° C (131° F)*
Min ambient temperature (Ta min.)	-30° C (-22° F)

*Above this temperature, the fixture regulates output to protect from overheating.

ENVIRONMENTAL

RoHS	Compliant
REACH	Compliant
WEEE	Compliant
Proposition 65	Compliant
Packaging	FSC certified cardboard inlay and outer box
Efficacy (max output)	50 lm/W
LWR*	630 lm/kg (290 lm/lb)*

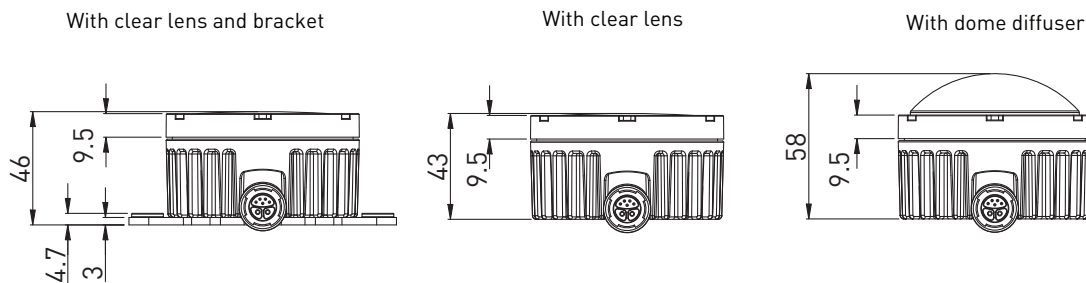**LWR = Lumen-to-Weight Ratio*

APPROVALS

Global CB Certification/IECEE	IEC 62368-1
EU safety	EN 62368-1, EMC: EN55035 EN 55032, EN 61000-3-2, EN 61000-3-3
US safety	UL 62368-1, EMC: FCC Part 15 Class B
Canadian safety	CSA C22.2 No.62368-1, EMC: ICES-003 Class B
Australia/NZ	RCM - Pending
United Kingdom	UKCA
India	BIS IS 10322(Part5/section7) - Pending

DIMENSIONS

PHYSICAL

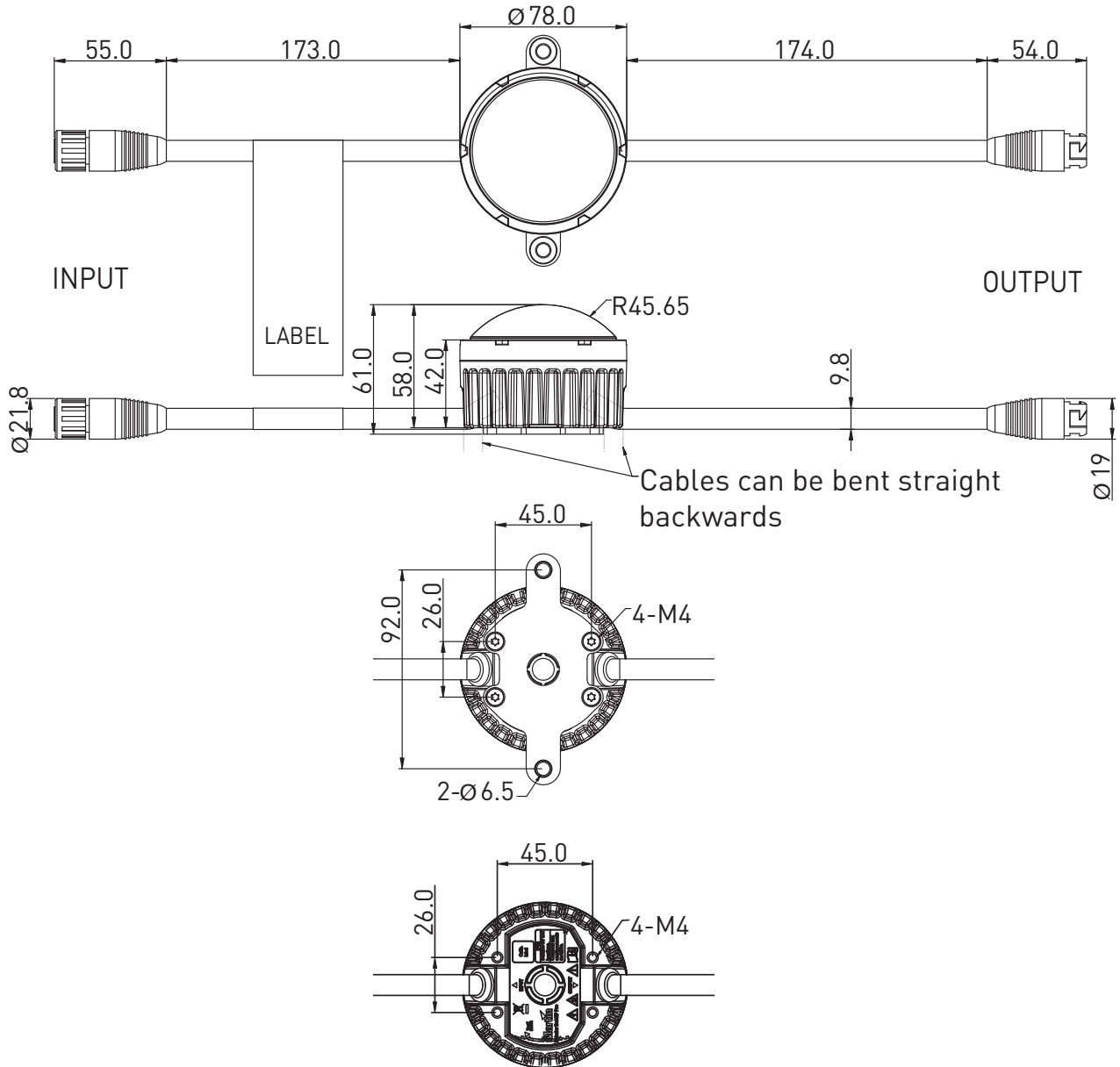|	
Diameter	78 mm (3.1 in.)
Height with clear front	43 mm (1.7 in.)
Height with dome front	58 mm (2.3 in.)
Weight	395 g (0.86 lbs.)

With clear lens and bracket

With clear lens

With dome diffuser

All dimensions are in mm

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DIMENSIONS

Ø78.0

55.0 173.0 174.0 54.0

INPUT

LABEL

OUTPUT

R45.65

61.0 58.0 42.0

9.8

Ø21.8

Ø19

Cables can be bent straight backwards

45.0

92.0 26.0

4-M4
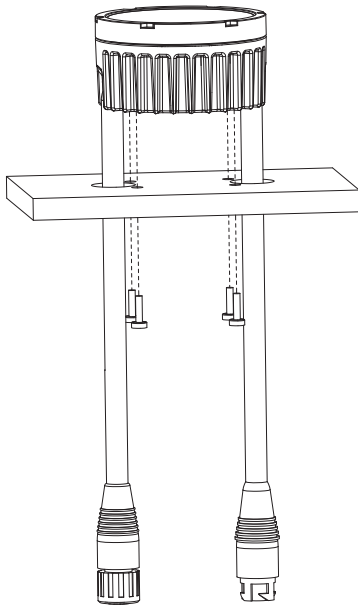
2-Ø6.5

45.0

26.0

4-M4

All dimensions are in mm

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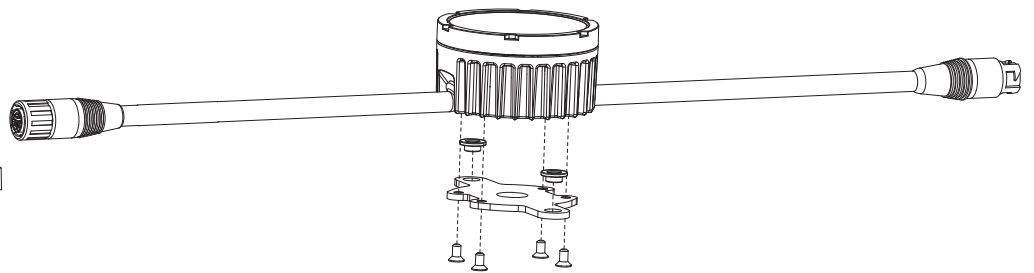
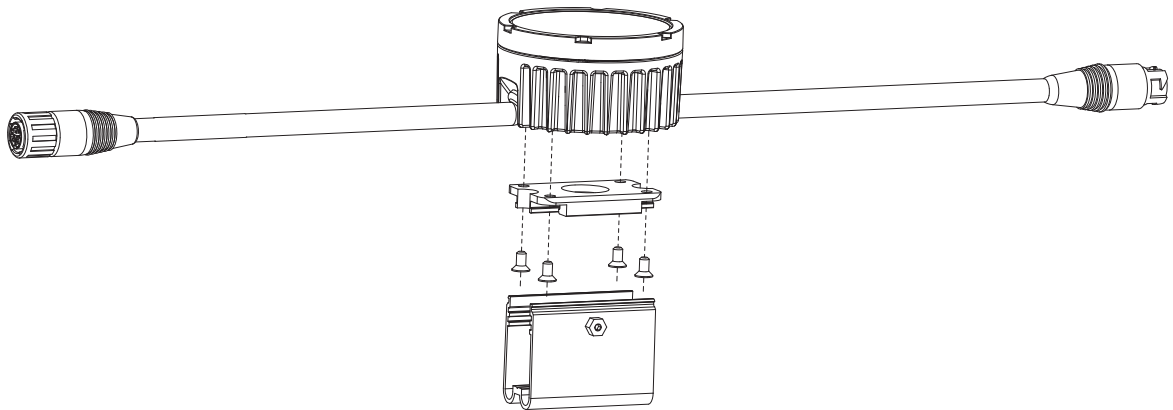*OUTDOOR-RATED, HIGH-OUTPUT RGBW LED CONNECTOR-BASED DOT*

MOUNTING OPTIONS

DIRECT MOUNTING

FLANGE BRACKET

MOUNTING PROFILE

All dimensions are in mm

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