

VDO ATOMIC™ DOT

2,700K WARM | 5,700 K COLD | BLINDER. STROBE. BEAM. SPOT. PIXEL.

SPEC SHEET



The Martin VDO Atomic Dot WRM and CLD hybrid lighting and video fixtures combine a small blinder, compact strobe, video-pixel and small spotlight.

By combining a video-controlled Aura backlight and a bright blinder/strobe dot in one fixture, lighting designers are empowered with greater creative potential to make a bigger impact with audiences than ever before. The fixtures' compact design also gives designers the ability to place VDO Atomic Dots just about anywhere and deploy them in larger quantities. Integrated support for P3, DMX, Art-Net and sACN eliminates the need for additional interface boxes and onboard P3 eases pixel mapping and using the product as a video controlled blinder or strobe.

VDO Atomic Dots are ideal for rental customers and lighting designers working in concert/touring and TV show sets as well as supporting corporate and nightclub clients.

KEY MESSAGES

DUAL LAYER FIXTURE

A high-power, warm (WRM) or cold (CLD) white beam combined with a pixel-controllable RGB Aura backlight enables truly, unique effects. Both layers can be controlled individually via P3, DMX, Art-Net, sACN or a mix.

COMPACT AND LIGHTWEIGHT

Packs a lot of punch from a very compact fixture that can be used and hidden in any application. Internal power supply and IP65 rated housing increase usability of this fixture in various applications.

EASILY COMBINE MULTIPLE FIXTURES IN ARRAYS

The smart interlocking mechanics allow fixtures to be combined into battens, arrays or creative shapes. Creative imagination is your only limit. It is also possible to combine the VDO Atomic Dot with the VDO Atomic Bold in a mixed array.

HYBRID DATA AND POWER CABLE

The hybrid power and data cable carries all power and data for the fixtures, allowing them to be daisy-chained very easily in large quantities.

FRONT-ACCESSORY HOLDER

The industry-standard PAR30-sized front-accessory holder can hold a diffuser to widen the beam-angle of the fixture. It also fits standard barndoors to give the fixture an artistic look on stage.

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FEATURES

- VDO Atomic Dot WRM: high power warm white beam (2700K)
- VDO Atomic Dot CLD: high power cold white beam (5700K)
- Beam angle of 11 degrees
- Field angle of 22 degrees
- Pixel-controllable RGB Aura backlight
- Compact form-factor
- Built-in power supply (100-240V)
- Power and Data IN & THRU via hybrid cable (PDE System)
- P3, DMX, Art-Net & sACN compatible
- Built-in pixel-FX on backlight and beam
- Front-accessory holder for barndoors and/or diffuser/lens
- Detachable yoke-assembly
- Smart interlocking mechanics to build battens, arrays and creative shapes (compatible with VDO Atomic Bold)
- Passive cooling
- IP65 rated

ORDERING INFORMATION

- Martin VDO Atomic Dot WRM (in cardboard box polystyrene packaging) P/N 90357702
- Martin VDO Atomic Dot CLD (in cardboard box polystyrene packaging) P/N 90357701

DEMO KIT

- VDO Atomic Dot Demo Kit P/N 91311001

ACCESSORIES

JUNCTION BOXES

- Passive Junction Box Power-DMX-Ethernet to PDE... P/N 91610001
- Active Junction Box Power-DMX-Ethernet to PDE.....P/N MAR-91700002

ADAPTER CABLES

- BreakIn Cable Power-DMX-Ethernet to PDEP/N MAR-91700000
- BreakOut Cable PDE to Power-DMX-Ethernet...P/N MAR-91700001

OPTICAL ACCESSORIES

- VDO Atomic Dot Diffuser 60 Degrees..... P/N 91610002
- VDO Atomic Dot Diffuser 30 Degrees..... P/N 91610005

MECHANICAL ACCESSORIES

- Super Lightweight Half Coupler Rigging Clamp, black..... P/N 91602018
- G-clamp (vertical hanging installation only)..... P/N 91602003
- Half-coupler clamp..... P/N 91602005
- Quick trigger clamp (vertical hanging installation only)..... P/N 91602007
- Safety Cable, SWL 60 kg, BGV C1 / DGUV 17, black P/N 91604006
- Safety Cable, SWL 60 kg, BGV C1 / DGUV 17, silver P/N 91604007
- Set of 10 VDO Atomic Couplers P/N 91610003
- VDO Atomic Half Coupler..... P/N 91610004
- VDO Atomic Interlock Adapter..... P/N 91610006
- VDO Atomic Pivot Coupler P/N 91610007
- VDO Atomic Dot Double Width Bracket..... P/N 91616117
- VDO Atomic Spigot Adapter 28mm P/N MAR-91616118



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PRE-ASSEMBLED HYBRID PDE CABLES

- Power+Data Cable Rental PDE-PDE 1m P/N 91616001
- Power+Data Cable Rental PDE-PDE 2,5m P/N 91616002
- Power+Data Cable Rental PDE-PDE 5m P/N 91616003
- Power+Data Cable Rental PDE-PDE 10m P/N 91616004
- Power+Data Cable Rental PDE-PDE 25m P/N 91616005

BULK HYBRID PDE CABLE AND CONNECTORS

- Power+Data Connector PDE Male P/N 91611701
- Power+Data Connector PDE Female P/N 91611702
- Power+Data Cable Power-DMX-Ethernet Rental 100m..... P/N 91616006

FLIGHTCASE

- Flightcase for 15 x VDO Atomic Dot P/N 91515053
- Flightcase Extender for 15 x VDO Atomic Dot P/N 91515054

RELATED ITEMS

- Martin Companion Cable (for firmware update over DMX) P/N 91616091
- 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 Free Download from www.martin.com



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TECHNICAL SPECIFICATIONS

DYNAMIC EFFECTS

Beam Dimmer/Shutter.....	0 – 100% continuous dimming, variable flash rate and duration, and atomic effects
Beam Dimming options.....	Choice of four dimming curves
Beam P3 Mix.....	Videomapping of fixture with variable crossfade between DMX control and video control
Aura Dimmer/Shutter.....	0 – 100% continuous dimming, regular and random strobe effects
Aura Dimming options.....	Choice of four dimming curves
Aura Color mixing.....	RGB, independently variable 0 - 100%
Aura Color temperature control.....	Variable 2000 - 11000 K
Aura Virtual Color wheel.....	36 color presets, continuous rotation & random color
Aura PixelMapping.....	individual RGB control of each Aura pixel
Aura P3 Mix.....	Videomapping of fixture with variable crossfade between DMX control and video control
Built-in FX.....	Various pre-programmed FX on Beam, Aura and combination of both

CONTROL AND PROGRAMMING

Control Protocols.....	DMX, RDM, Art-Net, RDM over Art-Net, sACN and P3
Protocol Detection.....	Automatic
DMX Channels.....	1, 3, 4, 19, 64
DMX Modes.....	1-channel, 3-channel, 4-channel, Basic, Extended
Setting and Addressing.....	RDM, RDM over Art-Net or P3
Fixture identification.....	User-settable ID number
DMX Compliance.....	USITT DMX512-A
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 5.1.0 or newer
DMX/RDM Transceiver.....	RS-485
Ethernet Transceiver.....	10/100Mbit
Firmware Update.....	via DMX using Martin Companion or via Ethernet using P3 System Controller

P3 VIDEO PROCESSING

Color Resolution.....	16 bit per color (48 bit per pixel) (Aura)
Color Temperature Control.....	2000-11000 K (Aura)
Color Gamut Control.....	full spectrum control (Aura)
Synchronization.....	system-wide
Frame Rate.....	up to 75 frames/sec
Brightness Control.....	0-100% (maintaining full color depth)
Gamma Correction and Control.....	Fully controllable (Aura)

CONTROL/USER INTERFACE

Device Status.....	Multi-color status LED
Device test and reset.....	Pushbutton to call up local test patterns and reset device

OPTICS AND PHOTOMETRIC DATA

Lens Diameter.....	95 mm
Front Accessory Holder.....	PAR30 size

BEAM/STROBE LED CLD

LED Type.....	Cold White
Max. total lumen output.....	3350 lumens
Beam Angle.....	11 Degrees (half peak)
Field Angle.....	22 Degrees (one-tenth peak)
Color Temperature.....	5700 K
CRI (Color Rendering Index).....	>80
Resolution.....	16-bit
Minimum LED lifetime.....	50,000 hours (to >70% luminous output)

BEAM/STROBE LED WRM

LED Type.....	Warm White
Max. total lumen output.....	2850 lumens
Beam Angle.....	11 Degrees (half peak)
Field Angle.....	22 Degrees (one-tenth peak)
Color Temperature.....	2700 K
CRI (Color Rendering Index).....	>84
Resolution.....	16-bit
Minimum LED lifetime.....	50,000 hours (to >70% luminous output)



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TECHNICAL SPECIFICATIONS

AURA BACKLIGHT LEDS

LED Type	RGB
LED Quantity	16
Color Temperature	variable (2000-11000K)
Resolution	16-bit per color per pixel
Minimum LED lifetime	50 000 hours (to >70% luminous output)

CONSTRUCTION

Color	Black
Housing Material	Aluminum
Protection Rating	IP65
RoHS	Compliant
REACH	Compliant

INSTALLATION

Mounting Options	hanging from bracket, hanging from clamp attached directly to fixture or hanging from other fixture using interlock mechanism
Clamp attachment to hanging bracket	M12
Clamp attachment directly to fixture	M8
Maximum vertical column height	16 fixtures
Orientation	Any
Minimum distance to combustible materials	0.1 m
Minimum distance to illuminated surfaces	0.2 m
Location	indoor or temporary outdoor use

CONNECTIONS

AC Power, DMX and Network input	cable tail with PDE hybrid connector (IP65)
AC Power, DMX and Network thru	chassis-mount PDE hybrid connector (IP65)

All connections hot plugging compatible

ELECTRICAL

AC power	100-240 V AC nominal, 50/60Hz
Power Supply Unit	Auto-ranging electronic switch mode
Maximum power consumption	55 W
Typical half-cycle RMS inrush current	1.12 A
Typical earth-leakage current	0.25 mA

TYPICAL POWER AND CURRENT

100V, 60Hz	49.0 W, 0.49 A, PF 0.99
120V, 60Hz	48.9 W, 0.41 A, PF 0.98
208V, 60Hz	48.6 W, 0.24 A, PF 0.95
230V, 50Hz	50.2 W, 0.23 A, PF 0.96
240V, 50Hz	49.6 W, 0.22 A, PF 0.94

Measurements made at nominal voltage with all LEDs at full intensity. Allow for a deviation of +/- 10%.
PF = power factor.

THERMAL

Cooling	Convection
Maximum Ambient Temperature (Ta max)	40 C
Minimum Ambient Temperature (Ta min)	0 C
Typical Heat Dissipation (calculated, +/- 10%)	171 BTU/hr

APPROVALS

EU Safety	EN 60598-2-17 (EN 60598-1), EN 62471, EN 62493
EU EMC	EN 55015, EN 55032, EN 55103-2, EN 61000-3-2, EN 61000-3-3, EN 61547
US Safety	UL1573
US EMC	47 CRF §15 Class B
Canadian Safety	CSA 22.2 No. 166
Canadian EMC	ICES-003 Class B, ICES-005 Class B
Australia/NZ	RCM



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DIMENSIONS

PHYSICAL

Width excluding hanging bracket 130 mm (5.1 in.)
Width including hanging bracket 175 mm (6.9 in.)

Height excluding hanging bracket 134 mm (5.3 in.)
Height including hanging bracket 242 mm (9.5 in.)

Horizontal fixture spacing 150 mm (5.9 in.) center-to-center
(using interlock couplers)
Vertical fixture spacing 150 mm (5.9 in.) center-to-center
(using interlock couplers)

Depth 146 mm (5.7 in.)

Weight including hanging bracket 2.2 kg (4.85 lbs.)
Weight excluding hanging bracket 2.0 kg (4.41 lbs.)

