

VDO DOTRON™ FAMILY

HIGH POWER SINGLE PIXEL LED VIDEO DOT

SPEC SHEET



HIGHLIGHTS

- The perfect expansion of your creative VDO toolbox for exciting 3D stage setups
- Extensive range of field-exchangeable diffusers and lenses for a great variety of looks
- Easy setup, mapping and configuration via P3 System Controller
- Complete range of rigging accessories available

OVERVIEW

Your creative VDO toolbox just got bigger, more dynamic and way more flexible, making your P3 System Controller even more versatile.

VDO Dotron is a compact and powerful outdoor-rated video pixel with many faces that truly sparks creativity for 3D stage setups. A wide variety of lenses and diffusers offers a wealth of different looks - or go with no front for a raw look. Easy video-mapping and creative mix 'n' match with other Martin LED video products via the P3 System Controller. It uses the same integrated power and data cabling as VDO Sceptron and VDO Fatron, making installation a breeze. Be creative.

KEY MESSAGES

EASY INFRASTRUCTURE

The VDO Dotron products can be controlled via the Martin P3 protocol for easy mapping and integration with other Martin P3-enabled products onto the same control system. For smaller or pure lighting applications, the VDO Dotron also accepts direct RDM/DMX input. Or get the best of both worlds and feed DMX into the Martin P3 System Controller, offering real-time switching between DMX control and video mapping using P3 Switch.

VARIETY OF LOOKS

A range of 4 different "screw on" diffusers plus 1 lens enables many different looks to be created from the same fixture, adding greatly to its versatility. Of course the fixture can also be used without diffuser or lens installed.

RIGGING FLEXIBILITY

An extensive range of rigging accessories makes it possible to use the VDO Dotron virtually anywhere, and combine multiple fixtures into creative designs. Flange bracket, half coupler, pivot coupler, multirig bar and more are available.

MIX AND MATCH

Unlock even more creative possibilities by combining the VDO Dotron with VDO Sceptron and VDO Fatron. All products use the same cabling infrastructure and rigging accessories allow them to be combined in various shapes and designs. A perfect creative toolbox with matched colors.

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FEATURES

- Supported by integrated power and data processor (P3 PowerPort 1500, P3 PowerPort 1000 IP or DMX PowerPort 375) and simple cabling system
- Combined power and data cabling (compatible with other products such as VDO Sceptron and VDO Fatron)
- DMX Control
- P3 Control with VideoMapping
- Hybrid DMX + P3 Control (toggle in real-time between DMX, PixelMapping and VideoMapping using P3 Switch channel)
- Extensive range of built-in effects
- Intuitive mapping and addressing via P3 System Controller
- Fully brightness and color calibrated for optimal consistency between products (colors match with VDO Sceptron and VDO Fatron)
- High-quality 16-bit per color image processing technology
- 100 lumen per dot calibrated
- 4 different diffuser options plus 1 narrow lens array (all field-exchangeable)
- IP65 rated for outdoor use
- Versatile rigging accessories

ORDERING INFORMATION

- VDO Dotron, in cardboard box P/N 90357690
- Flightcase for 24 x VDO Dotron P/N 91515043
- Flightcase Extender for 24 x VDO Dotron P/N 91515044

RELATED ITEMS

- Martin P3 PowerPort 1500 P/N 90721040
- Martin P3 PowerPort 1000 IP Rental P/N 90721070
- Martin DMX PowerPort 375 P/N 90721094
- Martin IP66 PSU 240 W External Power Supply P/N 90760330
- 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 martin.com



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ACCESSORIES

- Magnetic Test Tool, set of 10 P/N 91610139

HARDWARE

- VDO Dotron Flange Bracket P/N 91611803
- VDO Dotron Half Coupler P/N 91611802
- VDO Dotron to VDO Sceptron/Fatron Coupler P/N 91616071
- VDO Dotron to VDO Sceptron/Fatron Pivot Coupler P/N 91616072
- VDO Dotron MultiRig Bar, 1000 mm P/N 91616100
- 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

OPTICAL

- VDO Dotron Flat Diffuser P/N 91611804
- VDO Dotron Flat Smoked Diffuser P/N 91611805
- VDO Dotron Dome Diffuser P/N 91611806
- VDO Dotron Dome Smoked Diffuser P/N 91611807
- VDO Dotron Lens Array Narrow P/N 91611808

BBD INPUT ADAPTERS:

- Power + Data Input Cable, 4-pin male XLR (for P3 PowerPort 1500 or DMX PowerPort 375) to female BBD, 0.25 m (9.8 in.) P/N 91616046
- Power + Data Input Cable, 5-pin male XLR (for DMX) + wire tails (for PSU) to female BBD, 0.25 m (9.8 in.) P/N 91616048
- Power + Data Input Cable, 5-pin male XLR (for DMX) + 4-pin male XLR (for P3 PowerPort) to female BBD, 0.25 m (9.8 in.) P/N 91616049
- Power + Data Input Cable, 5-pin male XLR (for DMX) + male Triplex type (for Martin IP66 PSU 240W) to female BBD, 0.25 m (9.8 in.) P/N 91616050

BBD OUTPUT ADAPTERS:

- Power + Data Output Cable, male BBD to 4-pin female XLR, 0.25 m (9.8 in.) P/N 91616047
- DMX Lead-out Cable, male BBD to 5-pin female XLR, 0.25 m (9.8 in.) P/N 91616051

BBD EXTENSION CABLES

- Power + Data Extension Cable, Rental Type, BBD to BBD, 1 m (3.3 ft.) P/N 91616041
- Power + Data Extension Cable, Rental Type, BBD to BBD, 2.5 m (8.2 ft.) P/N 91616024
- Power + Data Extension Cable, Rental Type, BBD to BBD, 5 m (16.4 ft.) P/N 91616042
- Power + Data Extension Cable, Rental Type, BBD to BBD, 10 m (32.8 ft.) P/N 91616043
- Power + Data Extension Cable, Rental Type, BBD to BBD, 25 m (82.1 ft.) P/N 91616044
- Power + Data Cable, Rental Type, 100 m (328 ft.) bulk without connectors P/N 91616045

CONNECTORS

- Power + Data Cable Connector, BBD, Male P/N 91611750
- Power + Data Cable Connector, BBD, Female P/N 91611751
- Blanking Caps for unused female BBD connectors, set of 10 P/N 91616052



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TECHNICAL SPECIFICATIONS

CONTROL AND PROGRAMMING

- Control optionsMartin P3 System Controller (via Martin P3 PowerPort) or DMX
- Control resolution.....16-bit (P3) or 8-bit (DMX) control of each color
- Protocol detection.....Automatic
- Setting and addressing.....Martin P3 System Controller or RDM-compliant controller
- CalibrationColor and intensity of entire dot
- DMX complianceUSITT DMX512-A
- RDM complianceANSI/ESTA E1.20
- Firmware updateVia Martin P3 System Controller
- Control modes, direct DMX controlRGB and Basic
- DMX channels, direct DMX control3/10
- Control modes, DMX via P3.....P3 Intensity, P3 RGB, P3 Basic, P3 Hybrid and P3 PixelMap
- DMX channels, DMX via P3.....1/3/5/6/3

CONTROL/USER INTERFACE

- Device statusMulti-color visual indication
- Device test and resetMagnetic pushbutton to call up local test patterns and reset device

OPTICS

Minimum LED lifetime: 50,000 hours (to >70% luminous output)*
**Figure obtained under manufacturer's test conditions*

Diffuser/Lens Options:

- Open Front
- Flat Diffuser
- Flat Smoked Diffuser
- Dome Diffuser (supplied standard with fixture)
- Dome Smoked Diffuser
- Lens Array Narrow

All optical accessories are interchangeable and screw onto fixtures

PHOTOMETRIC DATA

- Color resolution.....16 bits per color (48 bits per pixel)
- Viewing angle:
- Open Front103° x 103° (half-peak)
 - Dome Diffuser125° x 125° (half-peak)
 - Lens Array22° x 22° (half-peak)
- Luminous intensity, calibrated mode40 cd per dot
 - Luminous output, calibrated mode120 lumen per dot
 - Total output, calibrated mode4000 nits (fixtures placed in array at 100 mm center-to-center)

VIDEO PROCESSING

- Brightness control
- Gamma correction and control
- Color temperature control
- Color space control
- Calibration processing
- Synchronization

SIGNAL PROTOCOL

- Martin P3 (via Martin P3 PowerPort) or DMX (direct)

CONSTRUCTION

- Housing Cast aluminum
- Color..... Matte black
- Base Extruded aluminum profile
- Protection rating..... IP65
- RoHS compliant

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TECHNICAL SPECIFICATIONS

INSTALLATION

Mounting.....Four M4 threaded holes
on back of fixture

Mounting optionsM4 bolts, optional flange bracket,
half coupler, multiring bar, coupler to
VDO Sceptron/Fatron, pivot coupler
to VDO Sceptron/Fatron

Orientation.....Any

CONNECTIONS

Power and data input6-pin custom (BBD) IP66-rated

Power and data thru6-pin custom (BBD) IP66-rated

Hot plugging compatible

ELECTRICAL

Nominal input voltage48 VDC +/- 4%

Power supply options.....Martin P3 PowerPort 1500, Martin P3
PowerPort 1000 IP, Martin DMX
PowerPort 375, Martin IP66 PSU 240W
or generic 48 VDC PSU

Total power consumption
(at maximum intensity, full white)5 W

THERMAL

Cooling.....Convection

Maximum ambient temperature
(Ta max.)55° C (131° F)

Minimum ambient temperature
(Ta min.)-20° C (-4° F)

Total heat dissipation
(calculated, +/- 10%)20 BTU/hr

APPROVALS

- EU safety: EN 60950-1, EN 60950-22
- EU EMC: EN 55024, EN 55032 (Class A), EN 61000-3-2, EN 61000-3-3
- US safety: UL 60950-1, UL 60950-22
- US EMC: FCC Part 15 Class A
- Canadian safety: CSA C22.2 No. 60950-1, No. 60950-22
- Canadian EMC: ICES-003 Class A
- Australia/NZ: RCM



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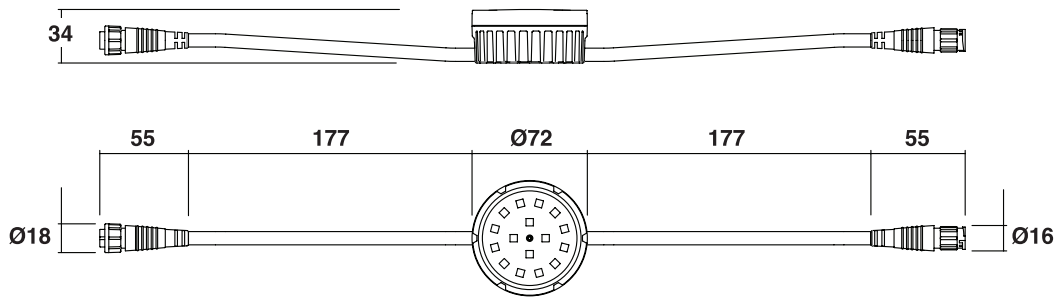
SPEC SHEET

DIMENSIONS

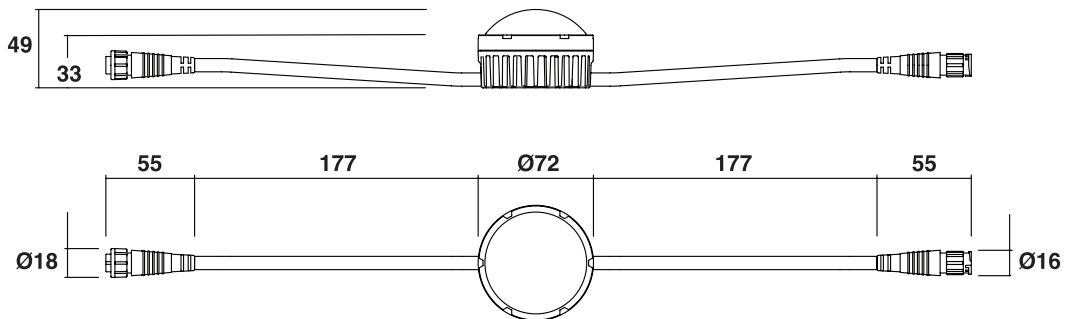
PHYSICAL

Diameter 72 mm (2.9 in.)
 Height 34 mm (1.4 in.),
 without diffuser/lens installed
 Weight 0.3 kg (0.7 lbs.),
 without diffuser/lens installed

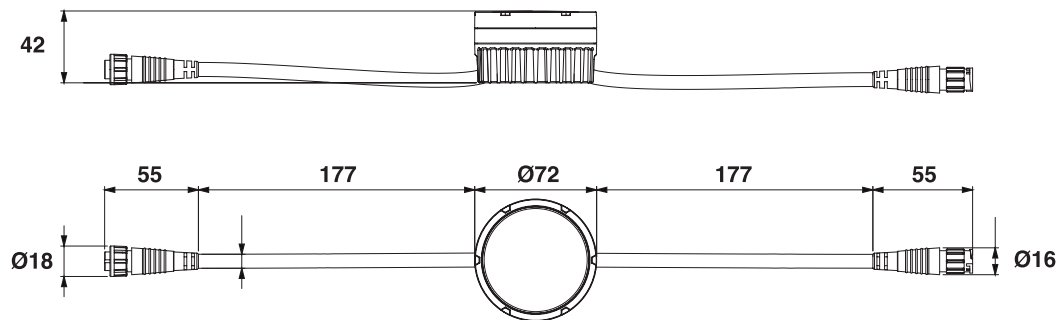
VDO Dotron, no diffuser / flat diffuser



VDO Dotron, diffuser dome front



VDO Dotron, directional lens array front



All dimensions are in mm

Direct dot-to-dot connection allows upto 0.5 m (19.6 in.) pixel pitch