

# VDO SCEPTRON™ FAMILY

LINEAR LED VIDEO BATTEN

SPEC SHEET



## HIGHLIGHTS

- Extensive range of field-exchangeable optical accessories for a wide variety of looks
- Easy setup, mapping and configuration
- Bright and fully calibrated for optimal consistency
- Complete range of rigging accessories available

## OVERVIEW

The VDO Sceptron is a linear outdoor-rated LED video fixture for the rental market with 10, 20 or 40 mm pixel pitch and an extensive range of optical accessories for a wide variety of looks. The VDO Sceptron is driven by the Martin P3 System Controller family for easy configuration, mapping and setup, and is also backwards compatible with DMX for smaller setups. The integrated power and data cabling allows for long daisy-chains with many fixtures per cable-run, while the power supply can be located backstage (up to 50 m away) for a clean setup avoiding messy cabling and several driver boxes. It uses the same integrated power and data cabling as VDO Fatron and VDO Dotron, making installation a breeze. Be creative.

## KEY MESSAGES

### EASY INFRASTRUCTURE

The VDO Sceptron 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 Sceptron 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 14 different "clip on" diffusers plus 2 lens options 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 Sceptron virtually anywhere, and combine multiple fixtures into creative designs. Couplers, floorstands, brackets, spigot adapters and more are available.

### MIX AND MATCH

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

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### FEATURES

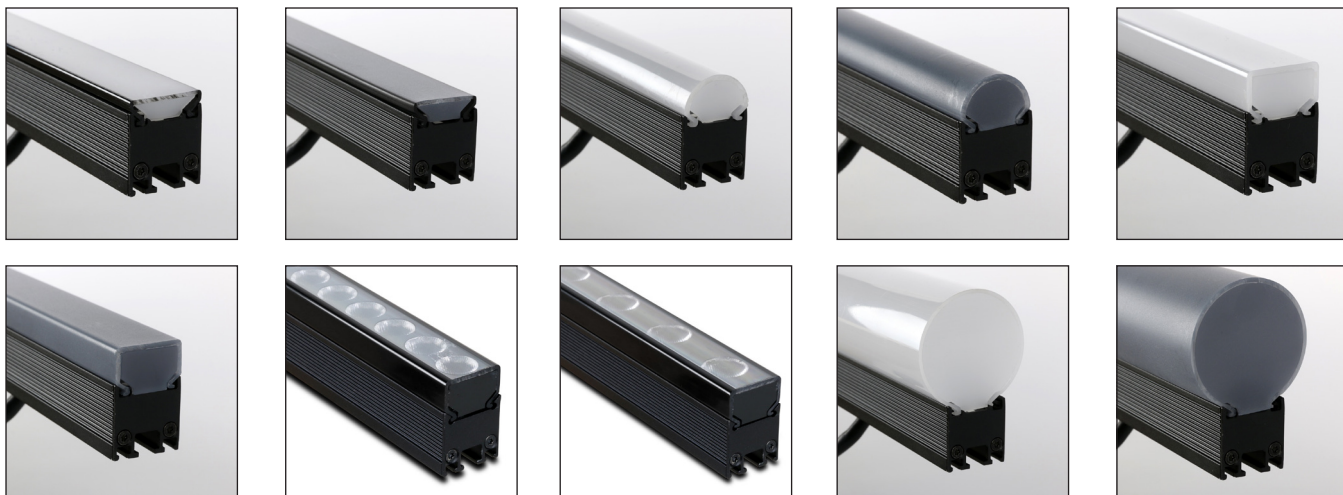
- Supported by integrated power and data processor (P3 PowerPort 1500, P3 PowerPort 1000 IP or DMX PowerPort 375) and simple cabling system
- Combined power and data cabling (compatible with other products such as VDO Fatron and VDO Dotron)
- DMX Control
- P3 Control with VideoMapping
- Hybrid DMX + 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 matched with VDO Fatron and VDO Dotron)
- Pixel-level brightness and color calibrated for a completely homogenous look
- High-quality 16-bit per color image processing technology
- 10/20/40 mm pixel pitch
- 250/125/62 cd per meter calibrated
- 750/375/187 lumen per meter calibrated
- Field-exchangeable diffusers and lenses
- IP65 rated for outdoor use
- Versatile rigging accessories
- Available in two lengths: 1000 mm and 320 mm

### ORDERING INFORMATION

- VDO Sceptron 10, 320 mm, in cardboard box ..... P/N 90357650
- VDO Sceptron 10, 1000 mm, in cardboard box ..... P/N 90357655
- VDO Sceptron 20, 320 mm, in cardboard box ..... P/N 90357660
- VDO Sceptron 20, 1000 mm, in cardboard box ..... P/N 90357665
- VDO Sceptron 40, 320 mm, in cardboard box ..... P/N 90357670
- VDO Sceptron 40, 1000 mm, in cardboard box ..... P/N 90357675
- Flightcase for 10 x VDO Sceptron 1000mm / 30 x VDO Sceptron 320 mm ..... P/N 91515030
- Flightcase Extender for 10 x VDO Sceptron 1000 mm / 30 x VDO Sceptron 320 mm ..... P/N 91515031

### 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 on martin.com



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### ACCESSORIES

- Magnetic Test Tool, set of 10 ..... P/N 91610139
- VDO Sceptron Diffuser Lens Removal Jaws ..... P/N 91611836

### HARDWARE

- VDO Sceptron/Fatron Sliding Brackets, set of 10 ..... P/N 91610123
- VDO Sceptron Parallel Couplers, 30/40/50 mm, set of 10 ..... P/N 91610125
- VDO Sceptron Parallel Couplers, 60/70/80 mm, set of 10 ..... P/N 91610138
- VDO Sceptron Linear (End-to-End) Couplers, set of 10 ..... P/N 91610124
- VDO Sceptron/Fatron Linear Coupler ..... P/N 91611843
- Super Lightweight Half Coupler Rigging Clamp, black ..... P/N 91602018
- Low Profile VDO Sceptron/Fatron Half Coupler ..... P/N 91611790
- VDO Sceptron/Fatron Spigot Adapter, 28 mm (1.1 in.) ..... P/N 91611791
- VDO Sceptron/Fatron Floorstands, set of two ..... P/N 91611792
- VDO Sceptron Pivot Coupler ..... P/N 91611793
- 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 320MM

- VDO Sceptron Flat Diffuser, 320 mm ..... P/N 91610111
- VDO Sceptron Flat Smoked Diffuser, 320 mm ..... P/N 91610113
- VDO Sceptron Round Diffuser, 320 mm ..... P/N 91610115
- VDO Sceptron Round Smoked Diffuser, 320 mm ..... P/N 91610117
- VDO Sceptron Square Diffuser, 320 mm ..... P/N 91610119
- VDO Sceptron Square Smoked Diffuser, 320 mm ..... P/N 91610121
- VDO Sceptron Tube Diffuser, 320 mm ..... P/N 91611630
- VDO Sceptron Tube Smoked Diffuser, 320 mm ..... P/N 91611650
- VDO Sceptron 10 NoBlend Diffuser, 320 mm ..... P/N 91610126
- VDO Sceptron 10 NoBlend Smoked Diffuser, 320 mm ..... P/N 91610128
- VDO Sceptron 20 NoBlend Diffuser, 320 mm ..... P/N 91610130

- VDO Sceptron 20 NoBlend Smoked Diffuser, 320 mm ..... P/N 91610132
- VDO Sceptron 40 NoBlend Diffuser, 320 mm ..... P/N 91610134
- VDO Sceptron 40 NoBlend Smoked Diffuser, 320 mm ..... P/N 91610136
- VDO Sceptron 20 Lens Array Narrow, 320 mm ..... P/N 91610140
- VDO Sceptron 40 Lens Array Narrow, 320 mm ..... P/N 91610142
- VDO Sceptron Asymmetric Lens, 320 mm ..... P/N 91611670

### OPTICAL 1000MM

- VDO Sceptron Flat Diffuser, 1000 mm ..... P/N 91610112
- VDO Sceptron Flat Smoked Diffuser, 1000 mm ..... P/N 91610114
- VDO Sceptron Round Diffuser, 1000 mm ..... P/N 91610116
- VDO Sceptron Round Smoked Diffuser, 1000 mm ..... P/N 91610118
- VDO Sceptron Square Diffuser, 1000 mm ..... P/N 91610120
- VDO Sceptron Square Smoked Diffuser, 1000 mm ..... P/N 91610122
- VDO Sceptron Tube Diffuser, 1000 mm ..... P/N 91611640
- VDO Sceptron Tube Smoked Diffuser, 1000 mm ..... P/N 91611660
- VDO Sceptron 10 NoBlend Diffuser, 1000 mm ..... P/N 91610127
- VDO Sceptron 10 NoBlend Smoked Diffuser, 1000 mm ..... P/N 91610129
- VDO Sceptron 20 NoBlend Diffuser, 1000 mm ..... P/N 91610131
- VDO Sceptron 20 NoBlend Smoked Diffuser, 1000 mm ..... P/N 91610133
- VDO Sceptron 40 NoBlend Diffuser, 1000 mm ..... P/N 91610135
- VDO Sceptron 40 NoBlend Smoked Diffuser, 1000 mm ..... P/N 91610137
- VDO Sceptron 20 Lens Array Narrow, 1000 mm ..... P/N 91610141
- VDO Sceptron 40 Lens Array Narrow, 1000 mm ..... P/N 91610143
- VDO Sceptron Asymmetric Lens, 1000 mm ..... P/N 91611680

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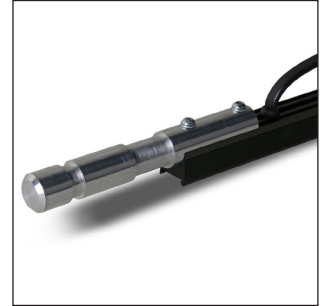
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### ACCESSORIES (CONTINUED)

#### 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 Tripix 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 options ..... Martin 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

Color and intensity calibration ..... Pixel-level

DMX compliance ..... USITT DMX512-A

RDM compliance ..... ANSI/ESTA E1.20

Firmware update ..... Via Martin P3 System Controller

Control modes, direct DMX control ..... RGB, Basic, Segment and Pixel

#### DMX channels, direct DMX control:

VDO Sceptron 10, 320mm ..... 3/10/13/103

VDO Sceptron 10, 1000mm ..... 3/10/22/307

VDO Sceptron 20, 320mm ..... 3/10/13/55

VDO Sceptron 20, 1000mm ..... 3/10/22/157

VDO Sceptron 40, 320mm ..... 3/10/13/31

VDO Sceptron 40, 1000mm ..... 3/10/22/82

Control modes, DMX via P3 ..... P3 Intensity, P3 RGB, P3 Basic, P3 Hybrid and P3 PixelMap

#### DMX channels, DMX via P3:

VDO Sceptron 10 ..... Wide range of options from 1 to 303

VDO Sceptron 20 ..... Wide range of options from 1 to 153

VDO Sceptron 40 ..... Wide range of options from 1 to 78

#### CONTROL/USER INTERFACE

Device status ..... Multi-color visual indication

Device test and reset ..... Magnetic 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
- Round Diffuser
- Round Smoked Diffuser
- Square Diffuser (supplied standard with fixture)
- Square Smoked Diffuser
- Tube Diffuser
- Tube Smoked Diffuser

- NoBlend Diffuser 10 mm
- NoBlend Smoked Diffuser 10 mm
- NoBlend Diffuser 20 mm
- NoBlend Smoked Diffuser 20 mm
- NoBlend Diffuser 40 mm
- NoBlend Smoked Diffuser 40 mm
- Lens Array Narrow 20 mm
- Lens Array Narrow 40 mm
- Asymmetric (Wall-Washing) Lens

All optical accessories are interchangeable and clip onto fixtures

#### PHOTOMETRIC DATA

Color resolution ..... 16 bits per color (48 bits per pixel)

Viewing angle ..... 120° x 120° (half-peak)

#### Pitch (pixel center-to-center):

VDO Sceptron 10 ..... 10.00 mm

VDO Sceptron 20 ..... 20.00 mm

VDO Sceptron 40 ..... 40.00 mm

#### Luminous intensity, calibrated mode:

VDO Sceptron 10 ..... 250 cd per meter

VDO Sceptron 20 ..... 125 cd per meter

VDO Sceptron 40 ..... 62 cd per meter

#### Luminous output, calibrated mode:

VDO Sceptron 10 ..... 750 lumen per meter

VDO Sceptron 20 ..... 375 lumen per meter

VDO Sceptron 40 ..... 187 lumen per meter

#### Total output, calibrated mode:

VDO Sceptron 10 ..... 8333 nits (fixtures placed in continuous surface at 30 mm center-to-center)

VDO Sceptron 20 ..... 4166 nits (fixtures placed in continuous surface at 30 mm center-to-center)

VDO Sceptron 40 ..... 2083 nits (fixtures placed in continuous surface at 30 mm center-to-center)

#### LED Array:

VDO Sceptron 10, 320mm ..... 1 x 32

VDO Sceptron 10, 1000mm ..... 1 x 100

VDO Sceptron 20, 320mm ..... 1 x 16

VDO Sceptron 20, 1000mm ..... 1 x 50

VDO Sceptron 40, 320mm ..... 1 x 8

VDO Sceptron 40, 1000mm ..... 1 x 25

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### TECHNICAL SPECIFICATIONS

#### 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

#### CONSTRUCTION

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

#### INSTALLATION

Mounting..... Channel for M6 captive nuts on back of profile  
 Mounting options ..... M6 bolts, optional sliding bracket (accepts M12 bolt), half coupler, spigot adapter, linear coupler, parallel coupler, pivot coupler, floorstand  
 Orientation..... Any

#### CONNECTIONS

Power and data input..... 6-pin custom (BBD) IP66-rated  
 Power and data thru ..... 6-pin custom (BBD) IP66-rated  
 Hot plugging compatible

#### ELECTRICAL

Nominal input voltage ..... 48 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

#### Maximum power consumption, all LEDs at full intensity:

VDO Sceptron 10, 320 mm ..... 10 W  
 VDO Sceptron 10, 1000 mm ..... 30 W  
 VDO Sceptron 20, 320 mm ..... 5 W  
 VDO Sceptron 20, 1000 mm ..... 15 W  
 VDO Sceptron 40, 320 mm ..... 2.5 W  
 VDO Sceptron 40, 1000 mm ..... 7.5 W

#### THERMAL

Cooling..... Convection  
 Maximum ambient temperature (Ta max.) ..... 55° C (131° F)  
 Minimum ambient temperature (Ta min.) ..... -30° C (-22° F)

#### Total heat dissipation (calculated, +/- 10%):

VDO Sceptron™10, 320 mm ..... 37 BTU/hr  
 VDO Sceptron™10, 1000 mm ..... 115 BTU/hr  
 VDO Sceptron™20, 320 mm ..... 19 BTU/hr  
 VDO Sceptron™20, 1000 mm ..... 60 BTU/hr  
 VDO Sceptron™40, 320 mm ..... 10 BTU/hr  
 VDO Sceptron™40, 1000 mm ..... 30 BTU/hr

#### APPROVALS

- EU safety: EN 60950-1, EN 60950-22, EN 62471
- EU EMC: EN 55032, EN 55024
- 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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### DIMENSIONS

#### PHYSICAL

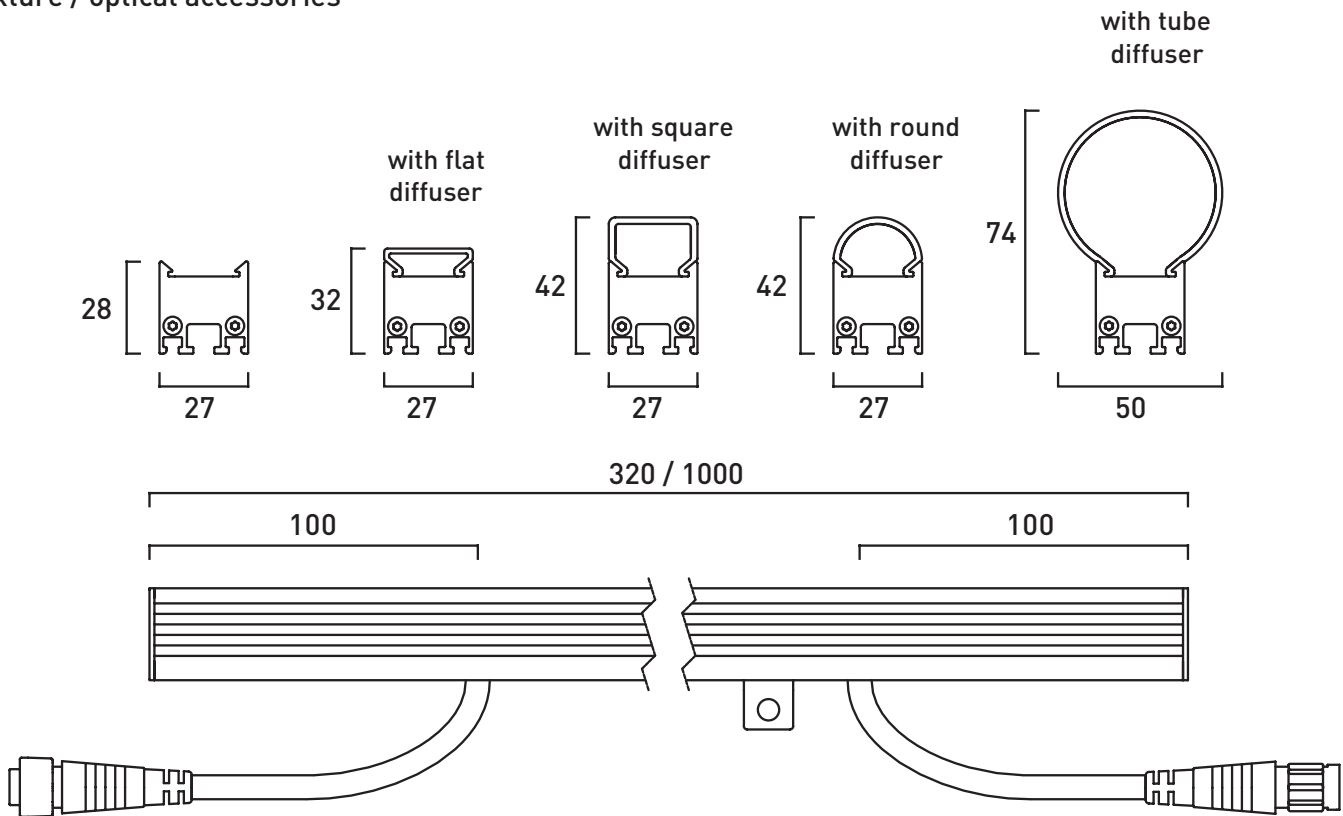
##### VDO Sceptron, 320 mm model:

Length .....	320 mm (12.6 in.)
Width .....	27 mm (1.06 in.)
Height without front .....	28 mm (1.10 in.)
Height with standard front (Square Diffuser) .....	42 mm (1.65 in.)
Weight without front .....	0.40 kg (0.9 lbs.)
Weight with standard front (Square Diffuser) .....	0.50 kg (1.1 lbs.)

##### VDO Sceptron, 1000 mm model:

Length .....	1000 mm (39.4 in.)
Width .....	27 mm (1.06 in.)
Height without front .....	28 mm (1.10 in.)
Height with standard front (Square Diffuser) .....	42 mm (1.65 in.)
Weight without front .....	1.2 kg (2.6 lbs.)
Weight with standard front (Square Diffuser) .....	1.4 kg (3.1 lbs.)

#### Fixture / optical accessories



All dimensions are in mm