

ACTIVE JUNCTION BOX

POWER-DMX-ETHERNET TO PDE

SPEC SHEET



OVERVIEW

The Martin PDE Junction Box Active merges power, DMX and Ethernet signals into a single connector and cable system as used by the Martin VDO Atomic family of fixtures.

The unit also features a DMX-thru and Ethernet-thru port, supported by the internal RDM-compliant DMX splitter and 3-port Ethernet switch with fail-safe bypass. The multi-color status LED gives a clear indication of the protocol being received, as it is compatible with DMX, Art-Net, sACN and Martin P3. And, the convenient test button allows all connected fixtures to be tested at once for easy system checking during installation.

The box is fully IP65 rated for outdoor use and features a robust metal housing. The flanges on the side allow for mounting to any surface, while the M10 threaded hole allows for the attachment of a rigging clamp.

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FEATURES

- powerCON TRUE1 TOP power in & thru
- XLR 5 TOP DMX in & thru (build-in DMX/RDM splitter)
- etherCON TOP Ethernet in & thru (build-in gigabit switch with fail-safe bypass)
- Martin PDE Hybrid output
- IP65 rated
- Status LED to indicate received protocol
- Pushbutton to recall test patterns on all attached fixtures
- Robust metal housing
- Wall or truss-mountable

ORDERING INFORMATION

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

ACCESSORIES

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

POWERCABLES

- Power Input Cable, H07RN-F, 2.5 mm²,
bare ends to TRUE1, 1.5 m (4.9 ft.)..... P/N 91611797
- Power Input Cable, H07RN-F, 2.5 mm²,
bare ends to TRUE1, 5 m (16.4 ft.)..... P/N 91611786
- Power Input Cable, SJ00W, 12 AWG,
bare ends to TRUE1, 1.5 m (4.9 ft.)..... P/N 91610173
- Power Input Cable, SJ00W, 12 AWG,
bare ends to TRUE1, 5 m (16.4 ft.)..... P/N 91610174
- Power Relay Cable, H07RN-F, 2.5 mm²,
TRUE1 to TRUE1, 0.45 m (1.5 ft.)..... P/N 91611784
- Power Relay Cable, H07RN-F, 2.5 mm²,
TRUE1 to TRUE1, 1.2 m (3.9 ft.)..... P/N 91611785
- Power Relay Cable, H07RN-F, 2.5 mm²,
TRUE1 to TRUE1, 2.5 m (8.2 ft.)..... P/N 91611796
- Power Relay Cable, SJ00W, 12 AWG,
TRUE1 to TRUE1, 0.45 m (1.5 ft.)..... P/N 91610170
- Power Relay Cable, SJ00W, 12 AWG,
TRUE1 to TRUE1, 1.2 m (3.9 ft.)..... P/N 91610171

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ORDERING INFORMATION

- Power Relay Cable, SJ00W, 12 AWG, TRUE1 to TRUE1, 2.5 m (8.2 ft.)..... P/N 91610172
- Cable Connector, Neutrik PowerCON TRUE1 Female P/N 91611789HU
- Cable Connector, Neutrik PowerCON TRUE1 Male P/N 91611788HU

MECHANICAL ACCESSORIES

- Super Lightweight Half Coupler Rigging Clamp, black..... P/N 91602018

RELATED ITEMS

- Martin Companion Cable (for firmware update over DMX)..... P/N 91616091
- Passive Junction Box Power-DMX-Ethernet to PDE..... P/N 91610001
- BreakIn Cable Power-DMX-Ethernet to PDE..... P/N MAR-91700000
- BreakOut Cable PDE to Power-DMX-Ethernet..... P/N MAR-91700001
- VDO Atomic Dot CLD in cardboard..... P/N 90357701
- VDO Atomic Dot WRM in cardboard..... P/N 90357702
- VDO Atomic Bold in cardboard..... P/N MAR-90357703



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TECHNICAL SPECIFICATIONS

CONTROL AND PROGRAMMING

Control Protocols	DMX, RDM, Art-Net, RDM over Art-Net, sACN and P3
Protocol Detection	Automatic
Configuration	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 IN/THRU	Opto-Isolated RS-485
DMX/RDM Transceiver OUT	Opto-Isolated RS-485
Ethernet Transceiver IN	100/1000Mbit (with fail-safe bypass to Ethernet THRU)
Ethernet Transceiver THRU	100/1000Mbit (with fail-safe bypass to Ethernet IN)
Ethernet Transceiver OUT	10/100Mbit
Firmware Update	via DMX using Martin Companion or via Ethernet using P3 System Controller

CONTROL/USER INTERFACE

Device Status	Multi-color status LED
Fixture Test	Pushbutton to call up test pattern on fixtures connected to PDE output

CONSTRUCTION

Color	Black
Housing Material	Aluminum
Protection Rating	IP 65
RoHS	Compliant
REACH	Compliant

INSTALLATION

Orientation	Any
Wallmount	Using mounting flanges
Trussmount	Using half-coupler clamp in M10 threaded hole, max. bolt length 22 mm
Location	indoor or temporary outdoor use

CONNECTIONS

AC Power input	Neutrik powerCON TRUE1 TOP (IP 65)
AC Power thru	Neutrik powerCON TRUE1 TOP (IP 65)
DMX input	Neutrik XLR 5-pin Male TOP (IP 65)
DMX thru	Neutrik XLR 5-pin Female TOP (IP 65)

Ethernet input	Neutrik etherCON TOP (IP 65)
Ethernet thru	Neutrik etherCON TOP (IP 65)
AC Power, DMX and Network out	PDE hybrid connector (IP 65)
All connections hot plugging compatible	

ELECTRICAL

AC power	100-240 V AC nominal, 50/60 Hz
Power Supply Unit	Auto-ranging electronic switch mode
Maximum power consumption	6 W
Typical half-cycle RMS inrush current at 230 V, 50 Hz	1.5 A
Typical earth-leakage current	0.25 mA

TYPICAL POWER AND CURRENT

100 V, 60 Hz	5.1 W, 0.089 A, PF 0.58
120 V, 60 Hz	5.1 W, 0.078 A, PF 0.56
208 V, 60 Hz	5.5 W, 0.048 A, PF 0.55
230 V, 50 Hz	5.7 W, 0.046 A, PF 0.55
240 V, 50 Hz	5.9 W, 0.046 A, PF 0.55

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%)	20 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 Chapter 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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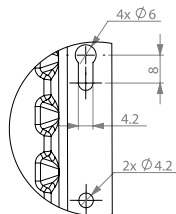
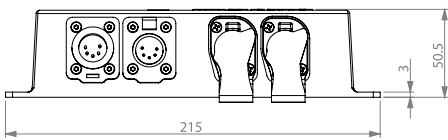
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DIMENSIONS

PHYSICAL

Length..... 215 mm (8.5 in.)
 (incl. mounting flanges)
 Width..... 115 mm (4.5 in.)
 Height..... 51 mm (2.0 in.)
 Weight..... 1 kg (2.2 lbs.)



DETAIL A
SCALE 1:1

