

# 6-Button Wall Controller

## Datasheet

Stock#	Description
6BUT-CONT-TP-AS	6-Button Wall Controller

### Description

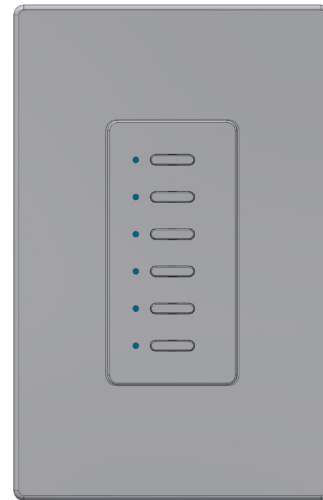
The 6-button Wall Controller provides an incredible lighting experience. It is designed to work seamlessly with SPICEbox™ and is effortless to customize. The users can customize the button functions to manage any NuSPICET™ load (fixture) with scenes and fade times through management software. This means that every user can enjoy optimal lighting experiences every time and easy programming through the NuPAC software.

With its seamless integration with NuLEDs PoE lighting system, users can experience the ease of smooth dimming to less than 1% while creating personalized lighting scenes. This innovative solution offers a more comfortable and tailored environment for any space. It provides customizable lighting scenes that cater to individual preferences and needs.

The system also allows for the effortless integration of various sensors, including ALS and PIR sensors, making it a valuable addition to any lighting system. It can be easily installed with our plug-and-play CAT5 cables.

The 6-button Wall Controller is designed with dedicated buttons, making it incredibly easy for users to adjust lighting levels or activate pre-set scenes. Additionally, it has precise dimming capabilities that help optimize energy usage. Users can set lighting levels at the perfect intensity for their task or ambiance, reducing unnecessary energy consumption and making our system eco-friendly.

Overall, the 6-button wall controller is the ultimate device for managing lighting environments. It offers endless possibilities with smooth dimming, customizable scenes, precise control, energy efficiency, seamless integration, and scalability.



### Features

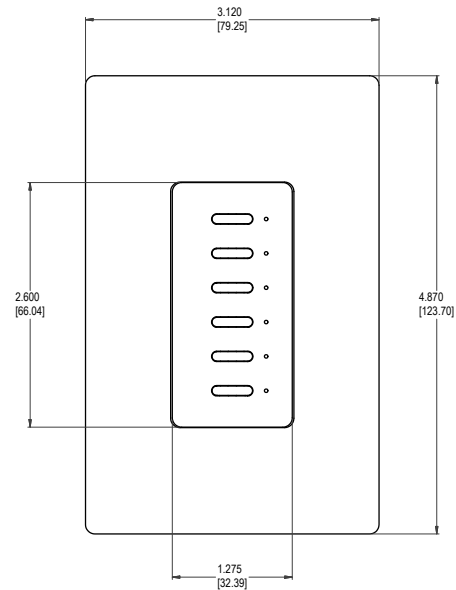
- **Optimized Energy Efficiency:** The controller's precise dimming capabilities optimize energy usage by allowing users to set appropriate lighting levels, reducing consumption.
- **Easy to Install and Manage:** Effortless powering the system through Cat5 cables
- **Seamless Integration:** Integration with NuLEDs PoE lighting ensures seamless communication and can include sensors like ALS and PIR.
- **Customization and Personalization:** Allow personalized lighting scenes, contributing to a comfortable environment.

# 6-Button Wall Controller

## Datasheet Specifications

Equipment Kit	
6-Button Wall Controller, Installation Guide	
Hardware	
Standby Power	<1 Watt
Power Supply	SPICEbox™ PoE
Input Power	NuLINK™ Bus
Input Voltage	5VDC
RJ45 Ports	2 X RJ45 ports connecting to SPICEbox™ (Only need to plug-in one)
Protocols	NuSPICE™, CoAP
Continuous Load	22AWG Conductor Cable
Maximum Wiring Length	50 ft. low baud rate and no terminations
Mechanical	
Dimensions (L X W)	4.87 in. (123.7 mm) x 3.12 in. (79.25 mm)
Weight	27 gm.
Mounting	<b>NOTE:</b> Mounting hardware not supplied. Wall mounted with screws and wall anchors or industry standard low voltage ring or mud ring.
Dimming	Programmable with NuSPICE™
Environmental	
Operating Temperature	32° to 104°F (0° to 40°C) ambient
Humidity	10-80% Non-Condensing
Agency Listings and Compliance	
UL Listed UL60950-1 (As SPICEbox™ accessory)	
FCC Class A Compliant	
CE Compliant	
RoHS	

## Dimensions



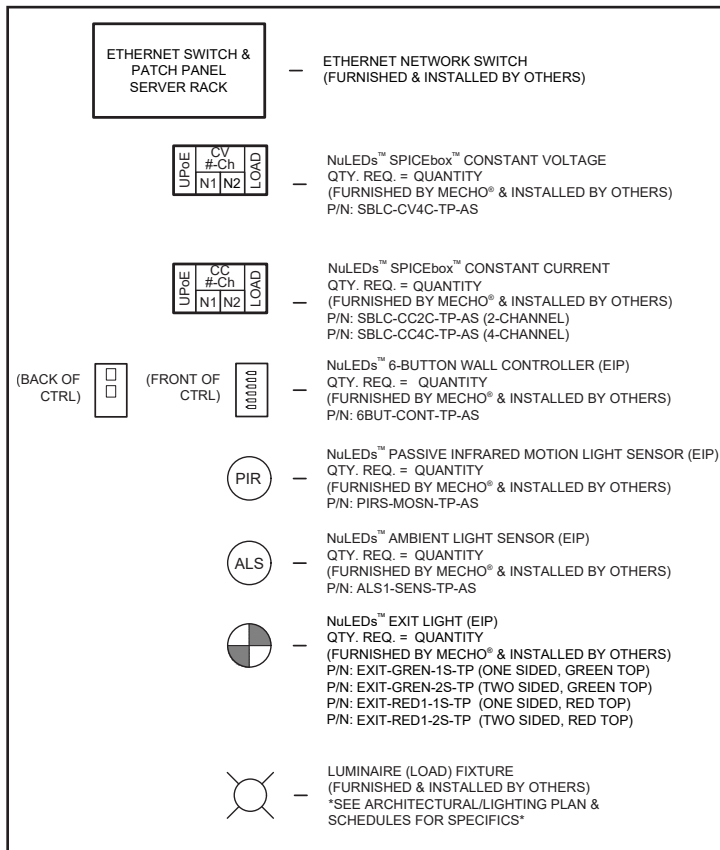
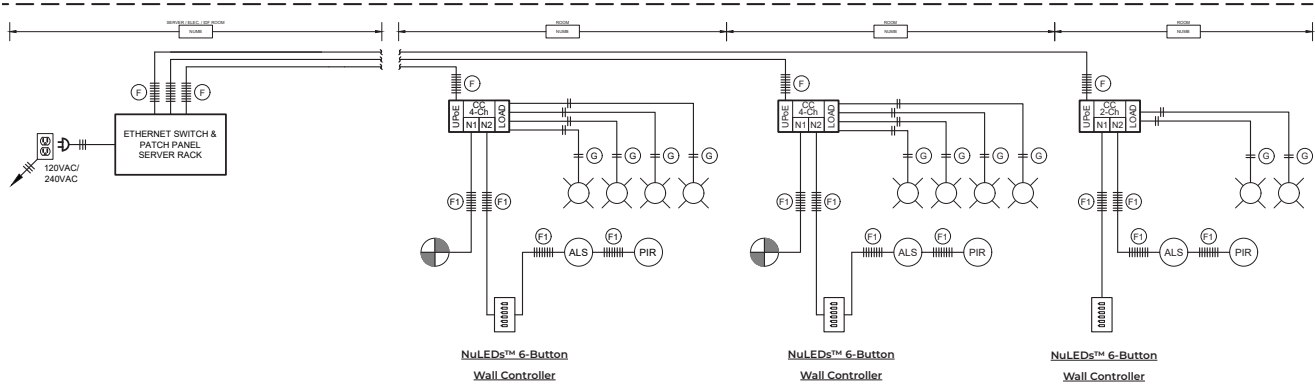
## Warning

- **Caution** - Observe precautions for handling electrostatic sensitive devices.
- Case to the SPICEbox™ should not be earth grounded.
- Do not use outdoors.
- **Warning** - Risk of Electric Shock. Do not handle energized module with wet hands or when standing on wet or damp surfaces.
- Use only with Class 2 Power Unit - 60VDC maximum.
- Conforms to CE, FCC standards
- **Warranty** - Voided if device has been modified from its original configuration.

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### NuLINK™ Network Wiring Diagram - Constant Current

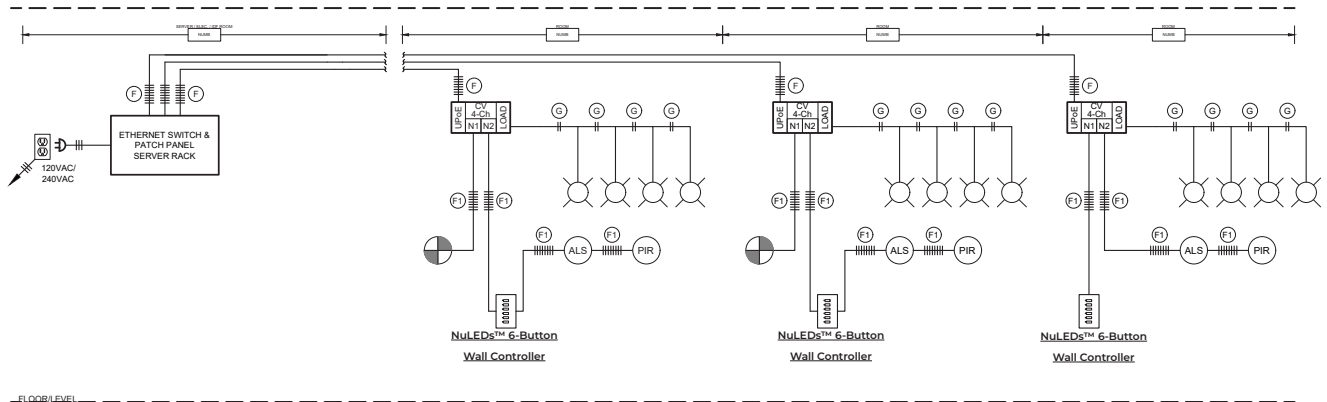


**NOTE:** Refer to page 9 for the Low Voltage Cable Legend and Crimping Instructions.

# 6-Button Wall Controller

## Datasheet

### NuLINK™ Network Wiring Diagram - Constant Voltage



FL008/1/EN/1

EQUIPMENT KEY FOR NuLEDs/NuLINK SYSTEM	
	ETHERNET NETWORK SWITCH (FURNISHED & INSTALLED BY OTHERS)
	NuLEDs™ SPICEbox™ CONSTANT VOLTAGE QTY. REQ. = QUANTITY (FURNISHED BY MECO® & INSTALLED BY OTHERS) P/N: SBLC-CV4C-TP-AS
	NuLEDs™ SPICEbox™ CONSTANT CURRENT QTY. REQ. = QUANTITY (FURNISHED BY MECO® & INSTALLED BY OTHERS) P/N: SBLC-CC2C-TP-AS (2-CHANNEL) P/N: SBLC-CC4C-TP-AS (4-CHANNEL)
	NuLEDs™ 6-BUTTON WALL CONTROLLER (EIP) QTY. REQ. = QUANTITY (FURNISHED BY MECO® & INSTALLED BY OTHERS) P/N: 6BUT-CONT-TP-AS
	NuLEDs™ PASSIVE INFRARED MOTION LIGHT SENSOR (EIP) QTY. REQ. = QUANTITY (FURNISHED BY MECO® & INSTALLED BY OTHERS) P/N: PIRS-MOSN-TP-AS
	NuLEDs™ AMBIENT LIGHT SENSOR (EIP) QTY. REQ. = QUANTITY (FURNISHED BY MECO® & INSTALLED BY OTHERS) P/N: ALS1-SENS-TP-AS
	NuLEDs™ EXIT LIGHT (EIP) QTY. REQ. = QUANTITY (FURNISHED BY MECO® & INSTALLED BY OTHERS) P/N: EXIT-GREN-1S-TP (ONE SIDED, GREEN TOP) P/N: EXIT-GREN-2S-TP (TWO SIDED, GREEN TOP) P/N: EXIT-RED1-1S-TP (ONE SIDED, RED TOP) P/N: EXIT-RED1-2S-TP (TWO SIDED, RED TOP)
	LUMINAIRE (LOAD) FIXTURE (FURNISHED & INSTALLED BY OTHERS) *SEE ARCHITECTURAL/LIGHTING PLAN & SCHEDULES FOR SPECIFICS*

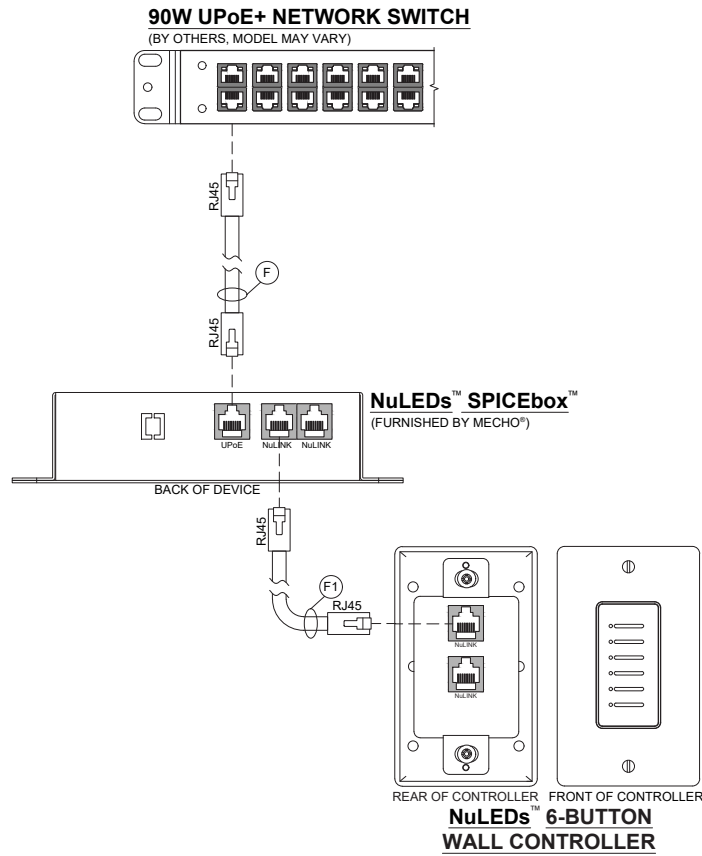
**NOTE:** Refer to page 9 for the Low Voltage Cable Legend and Crimping Instructions.

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### Point-to-Point Diagram - 6-Button Wall Controller PoE Integration & NuLINK™ Network

**NOTE:** Only one 6-Button Wall Controller can be connected per SPICEbox™.

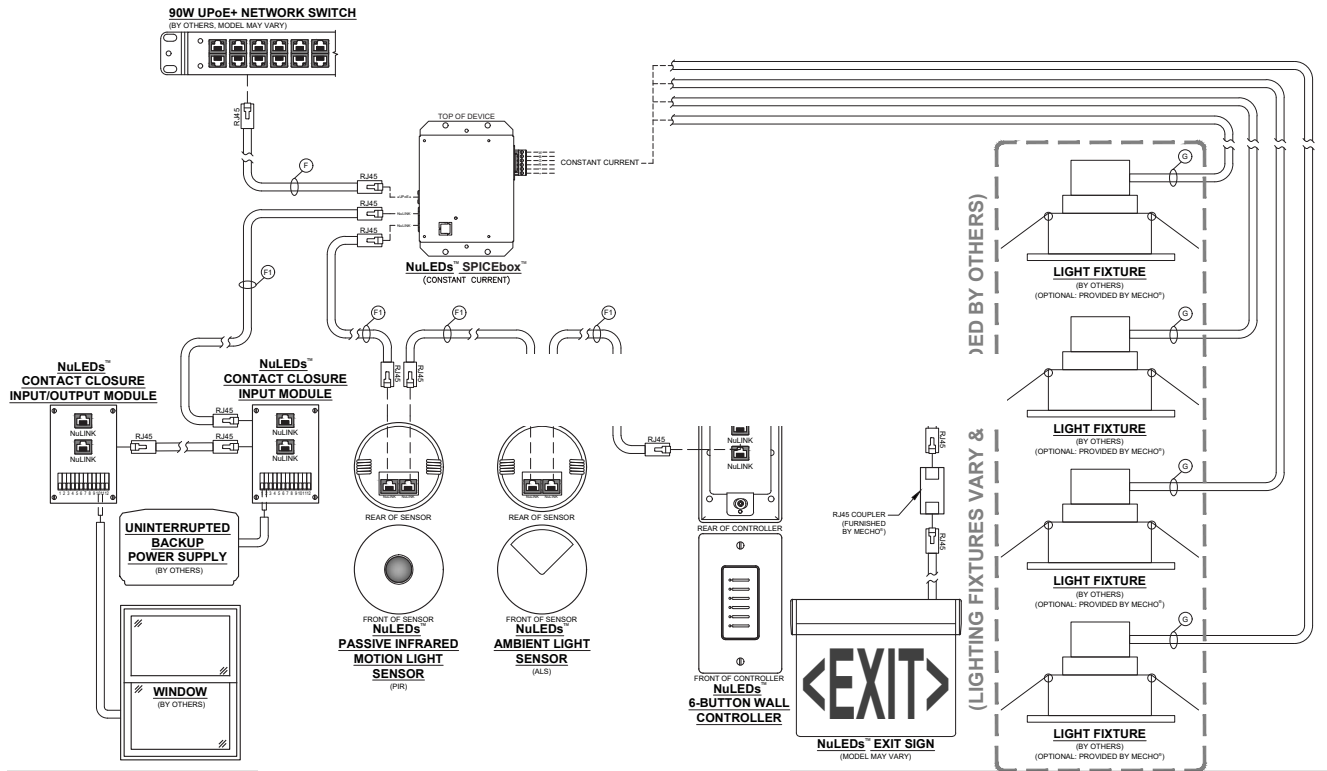


**NOTE:** Refer to page 9 for the Low Voltage Cable Legend and Crimping Instructions.

# 6-Button Wall Controller

## Datasheet

### Point-to-Point Diagram



**NOTE:** Refer to page 9 for the Low Voltage Cable Legend and Crimping Instructions.

# 6-Button Wall Controller

## Datasheet

### Cable Reference Drawing

**CABLE G REFERENCE DRAWING**

Riser

- Solid OR Stranded Annealed Copper Conductor
- Rip Cord
- PVC Insulation
- Flame Retardant PVC Jacket

Drawing not to scale

Plenum

- Solid OR Stranded Annealed Copper Conductor
- Rip Cord
- Low Smoke PVC Insulation
- Flame Retardant PVC Jacket

Drawing not to scale

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**SPECIFICATIONS:**

<p><b>CONDUCTOR COUNT:</b> 2 THRU 12 CONDUCTORS</p> <p><b>CONDUCTOR:</b> FULLY ANNEALED, SOLID OR STRANGED BARE COPPER</p> <p><b>AWG (mm):</b> 18 (1.16)</p> <p><b>INSULATION:</b> LOW SMOKE PVC</p> <p><b>INSULATION COLORS:</b> CONDUCTOR 1: BLACK CONDUCTOR 2: RED CONDUCTOR 3: WHITE CONDUCTOR 4: GREEN CONDUCTOR 5: BROWN CONDUCTOR 6: BLUE CONDUCTOR 7: ORANGE CONDUCTOR 8: YELLOW CONDUCTOR 9: VIOLET CONDUCTOR 10: GRAY CONDUCTOR 11: PINK CONDUCTOR 12: TAN</p> <p><b>JACKET:</b> RISER: GRAY, FLAME RETARDANT (FR) PVC PLENUM: WHITE, LOW SMOKE PVC</p> <p><b>PACKAGE:</b> BLACK, RIBBED, PLASTIC RECYCLABLE SPOOL, REEL-IN-A-BOX OR WOOD REEL</p>	<p><b>PERFORMANCE COMPLIANCE:</b> NEC ARTICLE 725 NEC ARTICLE 800 NEC ARTICLE 760 UL<sup>®</sup>13 CL3R/CL3P UL 444 CMR/CMP* UL 1424 FPLR/FPLP UL 1666 NFPA 262 CALIFORNIA STATE FIRE MARSHALL RoHS-COMPLIANT/RoHS 2-COMPLIANT</p> <p><b>NRTL PROGRAMS:</b> UL LISTED CL3R, CMR, FPLR UL LISTEN CL3P, CMP, FPLP</p>
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**Part Numbers and Physical Characteristics:**

Listing	Part Number <sup>1</sup>	Conductor Count	AWG (mm)	Conductor Type	Jacket Color <sup>2</sup>	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)
CL3R/CMR/FPLR	2F-C1x-31	2	18 (1.16)	7 x 26 AWG	GRAY	0.16 (4.1)	17 (25)
CL3R/CMR/FPLR	2F-C2x-31	3	18 (1.16)	7 x 26 AWG	GRAY	0.17 (4.3)	22 (9)
CL3R/CMR/FPLR	2F-C3x-31	4	18 (1.16)	7 x 26 AWG	GRAY	0.19 (4.8)	30 (45)
CL3R/CMR/FPLR	2F-C4x-31	6	18 (1.16)	7 x 26 AWG	GRAY	0.23 (5.8)	43 (64)
CL3R/CMR/FPLR	2F-C5x-31	8	18 (1.16)	7 x 26 AWG	GRAY	0.25 (6.4)	56 (83)
CL3R/CMR/FPLR	2F-C7x-31	12	18 (1.16)	7 x 26 AWG	GRAY	0.30 (7.6)	83 (124)
CL3P/CMP/FPLP	2F-C1x-43	2	18 (1.16)	7 x 26 AWG	WHITE	0.16 (4.1)	17 (25)
CL3P/CMP/FPLP	2F-C2x-43	3	18 (1.16)	7 x 26 AWG	WHITE	0.17 (4.3)	22 (9)
CL3P/CMP/FPLP	2F-C3x-43	4	18 (1.16)	7 x 26 AWG	WHITE	0.19 (4.8)	30 (45)
CL3P/CMP/FPLP	2F-C4x-43	6	18 (1.16)	7 x 26 AWG	WHITE	0.23 (5.8)	44 (65)
CL3P/CMP/FPLP	2F-C5x-43	8	18 (1.16)	7 x 26 AWG	WHITE	0.25 (6.4)	57 (85)
CL3P/CMP/FPLP	2F-C7x-43	12	18 (1.16)	7 x 26 AWG	WHITE	0.30 (7.6)	85 (126)

**Packaging Options:**

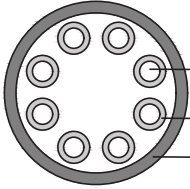
	Plastic Spool		Reel-in-a-Box		Wood Reel	Shrink Wrap	
	1,000'	500'	1,000'	500'	1,000'	250'	500'
<sup>1</sup> Replace "x" with:	2	3	4	5	6	7	8

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## Datasheet

### Cable Reference Drawing

### CABLE F REFERENCE DRAWING



Solid Annealed  
Copper Conductor

Thermoplastic Insulation

Flame Retardant PVC Jacket

Drawing not to scale

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**SUPERIOR ESSEX** ([www.superioressex.com](http://www.superioressex.com))

**PART No. PW52-H46-X5 (NON-PLENUM) & PW52-H46-X8 (PLENUM)**

**SPECIFICATIONS (SOLID): CATEGORY 5E+**

PAIR COUNT: 4

CONDUCTOR: SOLID ANNEALED COPPER

AWG (mm): 22 (0.51)

INSULATION: CMR: POLYOLEFIN  
CMP: FEP

INSULATION COLORS:  
PAIR 1: COLORTIP LIGHT BLUE, BLUE  
PAIR 2: COLORTIP LIGHT ORANGE, ORANGE  
PAIR 3: COLORTIP LIGHT GREEN, GREEN  
PAIR 4: COLORTIP LIGHT BROWN, BROWN

JACKET: CMR: FLAME RETARDANT (FR) PVC  
CMP: FR, LOW SMOKE PVC

CHARACTERISTIC IMPEDANCE Ohms: 100 ± 15

NOMINAL VELOCITY OF PROPAGATION %: CMR: 71  
CMP: 74

PERFORMANCE COMPLIANCE: UL 444  
CSA C22.2 No. 214-08  
UL 1666  
NFPA 262  
ANSI/TIA-568-C.2  
ANSI/ICEA S-90-661-2012  
Article 800, NEC (NFPA 70)  
HDBaseT Class A and B

NRTL PROGRAMS: UL Verified CAT 5e  
UL, c(UL) Listed CMR  
UL, c(UL) Listed CMP  
HDBaseT Certified

SUSTAINABILITY: UL Certified EPD  
HPD  
USGBC® Member  
RoHS-compliant/RoHS 2-compliant  
REACH-compliant

Temperature cable rating: 75°C  
for CMR and 90°C for CMP

**PART NUMBERS AND PHYSICAL CHARACTERISTICS**

Listing	Part Number <sup>1</sup>	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Package	Packages per Pallet
CMR	PW52-H46-x5	0.23 (4.6)	28 (25)	1,000 ft BrakeBox®	12
CMR	PW52-H72-x5	0.23 (4.6)	28 (25)	1,000 ft Plywood Reel	16
CMP	PW52-H46-x8	0.23 (4.8)	37 (28)	1,000 ft BrakeBox	12
CMP	PW52-H72-x8	0.23 (4.8)	37 (28)	1,000 ft Plywood Reel	16

**JACKET COLORS**

<sup>1</sup> Replace "x" with:	Blue = 2	Gray = 3	White = 4	Green = 5
Yellow = 6	Purple = 7	Red = 9	Black = E	



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### Low Voltage Cable Legend and Crimping Instructions

<b>LOW VOLTAGE CABLE LEGEND - EIA568B</b>	
<b>NOTES:</b> 1. PARALLEL WIRING TO NEXT DEVICE PER BRANCH CIRCUIT CAPACITY. ALL CONNECTION MUST MEET NATIONAL AND LOCAL CODES AND REGULATIONS. 2. ADDRESS SCHEDULES REQUIRED. 3. MAXIMUM VOLTAGE FOR ALL UNMARKED CABLE IS 43.5 VDC. 4. LOW VOLTAGE CABLES SHOULD NOT BE ROUTED NEAR POWER LINES OR ELECTRICAL DEVICES SUCH AS LIGHTING BALLASTS, DIMMERS AND LED DRIVERS THAT MAY EXPOSE THE SYSTEM TO EXCESSIVE ELECTRICAL NOISE.	
(F)	<b>CAT5E+ - CABLE FOR UPOE NETWORK WIRING CONNECTIONS:</b> <b>SPECIFICATION:</b> 22AWG 4UTP (8-CONDUCTOR SOLID UNSHIELDED TWISTED PAIR) <b>TERMINATION:</b> RJ-45 MODULAR PLUG CRIMPED (EIA568B) ON BOTH ENDS <b>RECOMMENDED:</b> SUPERIOR ESSEX (WWW.SUPERIORESSEX.COM) PART NO. PW52-H46-X5 (NON-PLENUM) & PW52-H46-X8 (PLENUM) OR COMPATIBLE CABLE  <b>DISTANCE LIMITATION: 328'. MAX. NODES: 1</b> SEE "CABLE F" REFERENCE DRAWING" FOR DETAILED SPECIFICATION. (FURNISHED & INSTALLED BY OTHERS)
(F1)	<b>CAT5E+ - CABLE FOR NULINK NETWORK WIRING CONNECTIONS:</b> <b>SPECIFICATION:</b> 22AWG 4UTP (8-CONDUCTOR SOLID UNSHIELDED TWISTED PAIR) <b>TERMINATION:</b> RJ-45 MODULAR PLUG CRIMPED (EIA568B) ON BOTH ENDS <b>RECOMMENDED:</b> SUPERIOR ESSEX (WWW.SUPERIORESSEX.COM) PART NO. PW52-H46-X5 (NON-PLENUM) & PW52-H46-X8 (PLENUM) OR COMPATIBLE CABLE  <b>DISTANCE LIMITATION: 50'. MAX. EIPS: 15</b> SEE "CABLE "F" REFERENCE DRAWING FOR DETAILED SPECIFICATION. (FURNISHED & INSTALLED BY OTHERS)
(G)	<b>CABLE FOR SPICEBOX TO LIGHT (LOAD) FIXTURE WIRING CONNECTIONS:</b> <b>SPECIFICATION:</b> 2 TO 12-CONDUCTOR, (18AWG UNSHIELDED) <b>RECOMMENDED:</b> SUPERIOR ESSEX (WWW.SUPERIORESSEX.COM 1-800-551-8948) LISTING NO. CL3R/CMR/FPLR (NON-PLENUM), & CL3P/CMF/FPLP (PLENUM)  <b>DISTANCE LIMITATION: VARIES PER LOAD. MAX. LOADS: VARIES BY WATTS</b> SEE "CABLE "G" REFERENCE DRAWING FOR DETAILED SPECIFICATION. (FURNISHED & INSTALLED BY OTHERS)

<b>EIA 568B CRIMPING - 8 CONDUCTOR CABLE</b>																												
UPOE CONNECTIONS ON UPOE NETWORK																												
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NuLED CONNECTIONS ON NuLINK MECHONET+ (RS485) NETWORK																												
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3	GREEN/WHITE STRIPE	MECHONET+ RS485-																										
4	BLUE SOLID	5V+																										
5	BLUE/WHITE STRIPE	5V+																										
6	GREEN SOLID	MECHONET+ RS485+																										
7	BROWN/WHITE STRIPE	5V GND																										
8	BROWN SOLID	NC																										

#### Warranty

Mecho's warranty ensures its products against defects in materials and workmanship for up to 25 years. The warranty timeline shall vary for different products. For complete warranty information, please visit <https://www.mechoshade.com/warranty> or contact your Mecho® Representative.

#### Technical support

**Mecho**  
**T:** +1 (800) 327-9798 (Follow prompts for Mecho® & Tech Support)  
**E:** techsupport@mechoshade.com  
**W:** www.mechoshade.com

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