## LIGHTING CONTROLS

### DIGITAL LIGHTING CONTROLS

## **DLM SERIES DIGITAL LIGHTING MANAGEMENT**



#### **DESCRIPTION**

The Wattstopper Digital Lighting Management, DLM Series is an intelligent, distributed control system that automatically maximizes lighting energy efficiency. DLM is designed to scale from stand-alone control of individual rooms to centralized control of a floor, a building, or an entire campus. With DLM, you layer your choice of control strategies to meet project goals, from energy code compliance to building aesthetics, simplified maintenance and enhanced energy performance. Control options include room controllers for switched or dimmed lighting loads, or for plug loads; digital occupancy sensors; sleek switches and handheld remotes; versatile daylighting sensors; lighting control panels; tools for remote configuration, scheduling and system management; and interfaces providing connectivity to third party devices.

For building-wide monitoring and management, multiple **DLM** local networks may be connected to an industry standard open protocol network for control by a segment manager or building automation system (BAS).



**DLM Series** 







#### **FEATURES**

- On/off and dimming control options
- Plugged components on a free-topology Category 5e DLM local network
- Capable of bi-level control, daylight harvesting, plug load control, and dimming

#### **SPECIFICATIONS**

**Supply Voltage** 

**LMPL** 120VAC, 50/60Hz

LMRC 120VAC or 230VAC or 277VAC, 50/60Hz
Auxiliary Supply Output Controllers provide PWR to modules

**LMPL-X01** 24VDC @ 150mA

LMRC-100 24VDC @150mA (Adds 150mA to system

network)

**Lighting Relay Output Capacity** 

4 CTRLs per local network (8-relay max)

**LMPL-X01** Single or Dual Latching SPST (For

recepticals)

LMRC-101 Single Latching SPST (For lights)
LMRC-102 Dual Latching SPST (For lights)
DI Hard Wire (HW) Inputs LMIO-101 comm. module for DI/DO

 Relay/Contactor
 Latching (LMRC or LMPL)

 Ballast
 20A @ 120/277 VAC

 Tungsten
 20A @ 120VAC,

 Fan HP
 1HP @ 120/240 VAC

Relay termination Pigtails 2/circuit on LMRC/LMPL
Relay override Push button on LMRC/LMPL
Dimming Output Capacity 4 CTRLs per local network
(12-relays & 12 dimmers max)

LMRC211 1 latching relay & 0-10V dimmer output
LMRC212 2 (latching) relays & 2 (0-10V) dimmers
LMRC213 3 (latching) relays & 3 (0-10V) dimmers

Display LED on LMRC/LMPL relay

BAS Communication BACnet MS/TP, w/(LMBC-300 network

bridge)

Field Device Comm. BACnet MS/TP, Free topology (Star or

Daisy chain)

Input Devices Modules use 5-20mA each (See module

specs)

Output/CTLR Devices Controllers provide network power for

remote modules

LMRC-101, LMPL-101 Local network has up to 24 addresses, 4

CTRLs max

Up to 4 ON/OFF loads possible
LMRC-2xx, LMPL-201 Local network has up to 48 addresses, 4

CTRLs max

Up to 12 ON/OFF loads and 12 dimmers

possible

LMBC or LMRC Each segment talks with up to 127 "Local

networks"

Configuration LMCT-100 Prog. tool (Required on first install)

Special features Completely distributed outputs and inputs

over BACnet

Operating Temperature Gen. Limits , 50° to 104°F

(See module specs)

**Operating Humidity** Gen. Limits, 5-90% RH non-condensing

Hub, ceiling or wall mount

(See module specs) NEMA 1, dry location

BTL, FCC Part 15, ASHRAE 90.1 IECC, EPAct, California Title 24,

Warranty 1 year

Mounting

**Approvals** 

**Enclosure Rating** 

September 2016

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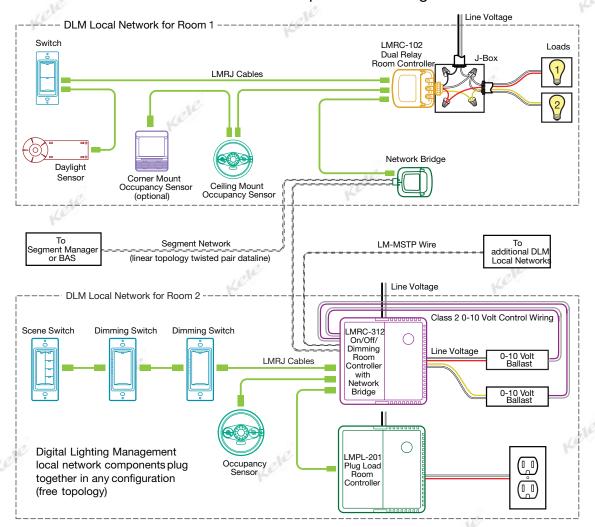
DLM SERIES DIGITAL LIGHTING MANAGEMENT

#### **APPLICATION**

Digital Lighting Management (DLM) components operate on a free-topology DLM local network. Each DLM local network is managed by one or more room controllers that, upon startup, automatically configure system components for the most energyefficient sequence of operation using Plug n' Go technology. Plug n' Go establishes default functionality based on the installed components. The DLM architecture is designed from the bottom up, the segment network operation is simple, and builds on the Plug n' Go and Push n' Learn functionality of each local network. New or existing DLM systems can easily be incorporated into BACnet MS/TP networks. DLM Network Bridge devices are standard MS/TP master devices, and the MS/TP MAC address and communication baud rate are automatically configured through arbitration with other devies on the network. Building operators create normal and after hours lighting control schedules and monitor operation for energy savings and real-time consumption. [For more product information and data sheets go to WWW.KELE.COM]

#### **CONNECTION DIAGRAM**

## Two DLM local networks connected to optional DLM segment network



Each segment network can connect up to 127 local networks for centralized monitoring and control

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## **DIGITAL LIGHTING CONTROLS**





## ORDERING INFORMATION

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MODEL	DESCRIPTION						
LMBC-300	BACnet network to DLM Network bridge						
LMSM-ENC1	Enclosure for Segment Manager, 14"L x 8.5"W x 5"D, include 120VAC duplex outlet						
LMCI-100	Computer Interface USB to DLM (RJ45) adapter for free LMCS software						
LMCS-100	Computer Interface DLM Configuration Software (Free Download)						
LMRC-311	DLM to BACNET Bridge, One SPST Relay and One 0-10V Dimming Output						
LMRC-312	DLM to BACNET Bridge, Two SPST Relay and One 0-10V Dimming Output						
LMRC-313	DLM to BACNET Bridge, Three SPST Relay and One 0-10V Dimming Output						
LMRC-CA	Conduit adapter for LMRC (2XX and 3XX) controllers						
LMPL-101	Digital Single Plug Load Room Controller, Hub Mount						
LMPL-201	Digital Single Plug Load Room Controller, Box Cover Mount						
LMRL-100	Isolated SPDT, 1A @ 24VAC/DC Relay						
LMRC-101	Digital On/ Off room controller with one SPST relay, Hub Mount						
LMRC-102	Digital On/Off Room Controller with 2 SPST relays, Hub Mount						
LMRC-211	Digital On/Off/0-10 Volt Dimming Room Controller with 1 relay and 1, 0-10 volt dimming output						
LMRC-212	Digital On/Off/0-10 Volt Dimming Room Controller with 2 relays and 2, 0-10 volt dimming outputs						
LMRC-213	Digital On/Off/0-10 Volt Dimming Room Controller with 3 relays and 3, 0-10 volt dimming outputs						
LMSW-101-I-P	Digital 1-Button Wall Switch with Ivory plate						
LMSW-102-I-P	Digital 2-Button Wall Switch with Ivory plate						
LMSW-103-I-P	Digital 3-Button Wall Switch with Ivory plate						
LMSW-104-I-P	Digital 4-Button Wall Switch with Ivory plate						
LMSW-105-I-P	Digital 5-Button Scene Switch with Ivory plate						
LMSW-108-I-P	Digital 8-Button Wall Switch with Ivory plate						
LMDM-101-I-P	Digital 1-Button Dimming Wall Switch with Ivory plate						
LMPC-100	Digital PIR Ceiling Mount Occupancy Sensor						
LMUC-100	Digital Ultrasonic Ceiling Mount Occupany Sensor						
LMDC-100	Digital Dual Technology Ceiling Mount Occupancy Sensor						
LMPX-100	Digital PIR Corner Mount Occupancy Sensor						
LMDX-100	Digital Dual Technology Corner Mount Occupancy Sensor						
LMIO-101	Digital Input/Output Interface (2 DI, 1 DO)						
LMIO-201	DLM 1 Analog Input Module (0-10V HVAC) Hub Mount						
LMIO-301	DLM (0-5, 10V) Light Sensor Input for MK7-B Sensors						
LMLS-105	On/Off Daylight control Photosensor with I-850 FC set point hub mount						
LMLS-305	0-10 Volt Dimming Daylight Control Photosensor						
LMLS-400	Digital on/off dimming Daylight Control Closed Loop Photo sensor						
LMLS-500 LMLS-MB1	Open Loop Multi-zone DLM Daylight Control Photo sensor with extened tube Photo sensor mounting bracket J box for LMLS (400, 500)						
LMLS-MB2	Photo sensor mounting bracket abox for LIVILS (400, 500)  Photo sensor mounting bracket wall mount for LMLS (400, 500)						
LMRH-101	Digital Handheld, 1-Button Rocker, Dimming IR Remote Control						
LMRH-102	Digital Handheld, On/Off 2-Button IR Remote Control						
LMRH-105	Digital Handheld, 5-Button Scene IR Remote Control						
LMIR-100	Digital IR Remote Control Ceiling Mount Receiver						
LMRJ-25	RJ45 cables 25 feet nonplenum rated						
LMJR-C8	RJ45 Female to Female Coupler						
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#### **ACCESSORIES**

LMSM-ENC1	Enclosure for Segment Manager, 14"L x 8.5"W x 5"D, include 120VAC duplex outlet
LMCT-100	Digital Wireless Configuration Tool

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**LMCP Series** Central Breaker Relay Panel

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