

The KMD-5831 is a Tier 2 fully programmable direct digital controller. The KMD-5831 brings you all of the features of our popular 8X8 controllers but with more inputs and outputs for greater versatility. Use it as a stand-alone controller or combine it with other controllers to build a KMC peer-to-peer network.

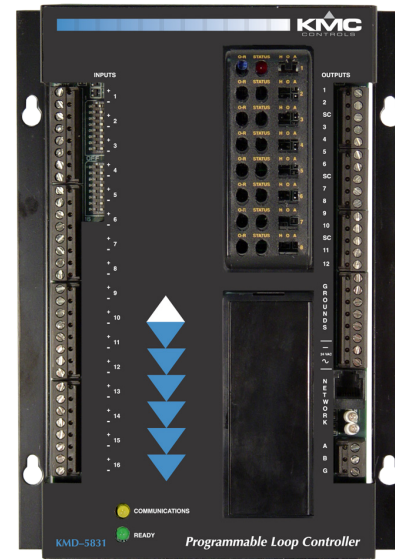
- ◆ Enjoy easy installation and intuitive programming.
- ◆ Connect to other KMC controllers through an EIA-485 network
- ◆ Controls room temperature, humidity, fans, monitors refrigeration, lighting, and many other building automation functions.
- ◆ NetSensor compatible

### Inputs

- ◆ 16 universal inputs each of which is software selectable for analog or digital signals
- ◆ Standard and custom units of measure
- ◆ Pull-up resistors for switch contacts and other unpowered equipment.  
Switch select none or 10 kΩ
- ◆ Removable screw terminal block, wire size 14–22 AWG
- ◆ 10-bit analog-to-digital conversion
- ◆ Pulse counting to 8 Hz
- ◆ 0–5 volts DC analog input range
- ◆ 4–20 milliamper input with external resistor

### Outputs

- ◆ 12 universal outputs each of which is software programmable for analog or digital signals
- ◆ Standard and custom units of measure
- ◆ Slots for KMC output override boards
- ◆ Removable screw terminal block, wire size 14–22 AWG
- ◆ 8-bit digital-to-analog conversion
- ◆ 0–10 volts DC analog output range
- ◆ 4–20 mA output range
- ◆ 0–12 volts DC digital output range



(Shown with Optional Override Board Cover in place.)

### Programmable features

- ◆ 10 Control Basic program areas
- ◆ Networked points in: 124
- ◆ Network points out: 62
- ◆ 12 PID control loops.
- ◆ 128 program variables software selectable as analog or digital with standard and custom units of measure
- ◆ Real-time clock with power backup
- ◆ 6 user defined tables
- ◆ Programmable for automatic daylight saving time by date, day of month and time of day.

### Custom graphics

- ◆ 8 system groups each of which can manage 32 points with animated and color graphics.
- ◆ Requires WinControl XL Plus to view and edit graphics.

### Schedules

- ◆ 8 weekly schedules each with 2 override days
- ◆ 4 annual schedules

## Logging

- ◆ 12 trend logs each supporting up to 4 analog, digital or virtual elements or points. Trend logs displayed as text or graphics.
- ◆ 12 runtime logs with cumulative runtime and date and time stamp

## Security

- ◆ 6 operator access levels
- ◆ 27 operator passwords

## Alarms

- ◆ Alarm buffering up to 10 alarms
- ◆ On-board 68 character alarm or maintenance text messages

## Power loss

- ◆ Auto restart on power failure.

## Memory

- ◆ 512 kilobytes nonvolatile flash memory
- ◆ 128 kilobytes ram with power backup
- ◆ Programs and program parameters are stored in nonvolatile memory.

## Communication

- ◆ 1— EIA-485 supports connections to 124 KMC Tier 2 controllers
- ◆ 1— NetSensor RJ-12 connector

## Regulatory

- ◆ UL 916 Energy Management Equipment
- ◆ FCC Class B, Part 15, Subpart B

## Installation

Supply voltage 24 volts AC, -15%, +20% 25 VA

Weight 16 ounces (454 grams)

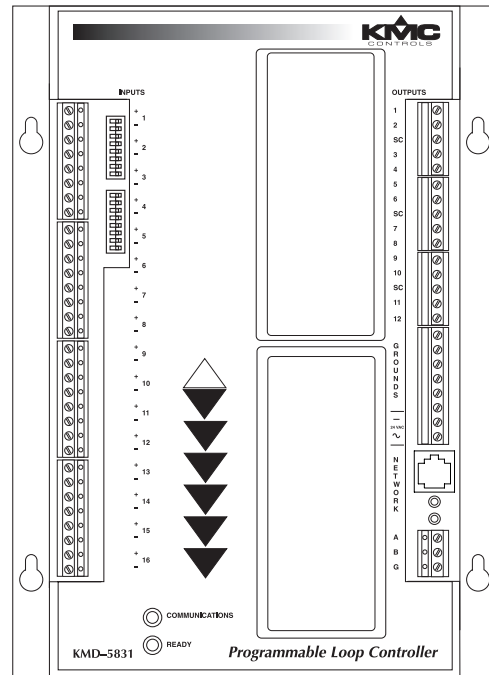
Dimensions 6.56 X 9.00 X 1.12 in.  
(168 X 229 X 32 mm)

## Environmental limits

Operating 32 to 120° F (0 to 49° C)

Shipping -40 to 140° F (-40 to 60° C)

Humidity 0-95% relative humidity  
(non-condensing)



## Compatibility

- ◆ Full feature requires WinControl XL Plus 2.0 or later
- ◆ Compatible with Tier 1 controllers operating with firmware build 2.0 or later.

## Options and accessories

### Output override cards

HPO-6701	Triac output
HPO-6702	Short protected analog output
HPO-6703	Relay, normally open contacts
HPO-6704	4-20mA current loop
HPO-6705	Relay, normally closed contacts

### Covers

HPO-6802	Output board cover with labels. Must be used to secure the HPO-6700 Series Output Boards.
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### Power transformer

XEE-6111-40	Single-hub 120 volt transformer
XEE-6112-40	Dual-hub 120 volt transformer

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