KMD–5831
Programmable Loop Controller
PLC–28 Direct Digital Controller

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.
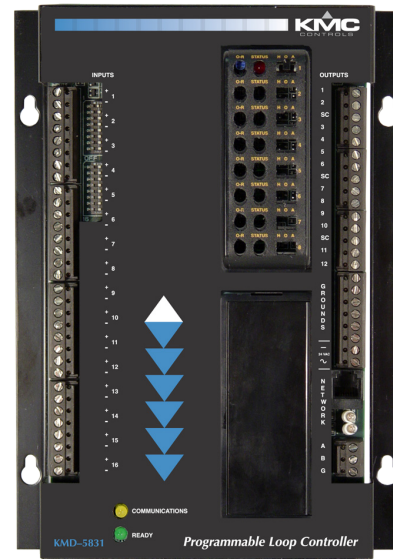
◆ Enjoy easy installation and intuitive programming.

◆ 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

(Shown with Optional Override Board Cover in place.)

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 milliampere 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

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

Specifications and design subject to change without notice.

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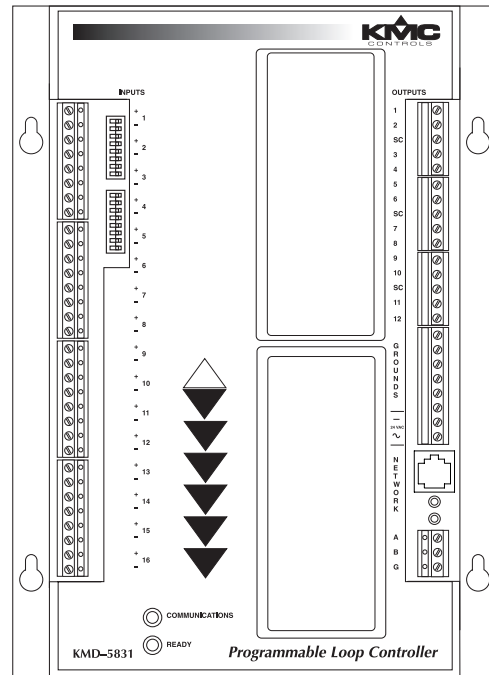
Supply voltage 24 volts AC, -15%, +20% 25 VA

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 120º F (0 to 49º C)
Shipping	–40 to 140º F (–40 to 60º C)
Humidity	0–95% relative humidity (non-condensing)

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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.

Power transformer

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

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