KMD-5801/5802

Direct Digital Controllers, 8 x 8

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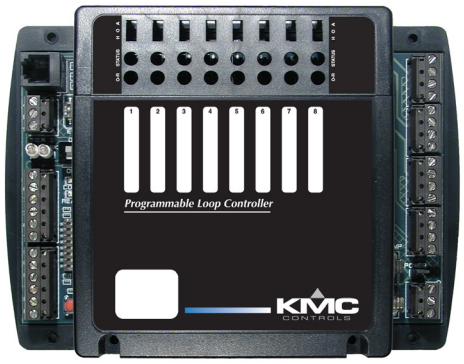
Description and Application

The KMD-5801/5802 fully programmable, PLC-16, Tier 2, direct digital controllers are versatile general purpose controllers in stand-alone environments or networked to other KMDigital devices. As part of a complete building automation system, they provide precise monitoring and control of connected points, such as room temperature, humidity, fans, lighting, and other building automation functions. They install and configure easily, are intuitive to program, and contain modular jacks for quick connections to NetSensors.



Specifications

Inputs

- 8 universal inputs (each programmable as an analog, digital, or pulse counting point)
- Standard and custom units of measure
- Pull-up resistors (switch selectable for none or 10K ohms) for switch contacts and other unpowered equipment
- Removable screw terminal blocks, wire size 14–22 AWG
- 10-bit analog-to-digital conversion
- Pulse counting to 16 Hz
- 0–5 volts DC analog input range (or 4–20 mA input in conjunction with an external resistor)
- Overvoltage input protection
- Modular jack for KMD-1160/1180 series NetSensor connection (5 VDC @ 25 mA typical)

Outputs

- 8 universal outputs (each programmable for analog or digital signals)
- 0–10 volts DC for analog outputs
- 0 or 12 volts DC for digital outputs
- Standard and custom units of measure
- Slots for HPO-6700 series output override boards
- Removable screw terminal blocks, wire size 14–22 AWG
- Short-protected outputs, output current limited to 100 mA per output (or 350 mA total)

Schedules

- 4 weekly schedules, each with 2 override days
- 2 annual schedules

Programmable features

- 5 Control Basic program areas
- 124 networked points in
- 32 network points out
- 8 PID control loops
- 64 program variables software selectable as analog or digital with standard and custom units of measure
- Real time clock with power backup for 72 hours (KMD-5801 only)
- 3 user defined tables
- Programmable for automatic daylight saving time by date, day of month, and time of day

Custom graphics

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

Trend logging

- 8 trend logs (displayed as text or graphics) each supporting up to 4 analog, digital, or virtual elements or points
- 8 runtime logs with cumulative runtime and date and time stamp

Memory

- Programs and program parameters are stored in nonvolatile memory
- Auto restart on power failure

Other features

- EIA-485, operating at up to 38.4 kilobaud, supports connections to 124 KMC Tier 2 controllers (network connections are supervised in smoke control applications)
- Compatible with Tier 1 controllers operating with firmware build 2.0 or later
- Requires current version of TotalControl or WinControl for full configuration and programming features
- Alarm buffering up to 10 alarms with on-board 68 character alarm or maintenance text messages
- 6 operator access levels and 27 operator passwords

Models

KMD-5801	Controller with real-time clock
KMD-5802	Controller without real-time clock

Accessories

Connectors and fuses

902-602-04	Replacement 3-pin removable terminal block
031-602-02	Replacement 4-pin terminal block
883-602-17	Replacement 6-pin terminal block
902-600-04	Replacement fuse, 1.0 A, fast acting
HPO-0054	Replacement isolation bulb
HPO-0063	Replacement 2-pin jumper

Enclosure

HCO-1102	Steel enclosure, 10.1 x 2.4 x 7.1"

NOTE: For smoke control applications, the controller must be mounted in a UL Listed FSCS enclosure or listed enclosure with minimum dimensions—see Smoke Control Manual For KMDigital Systems (P/N 000-035-09)

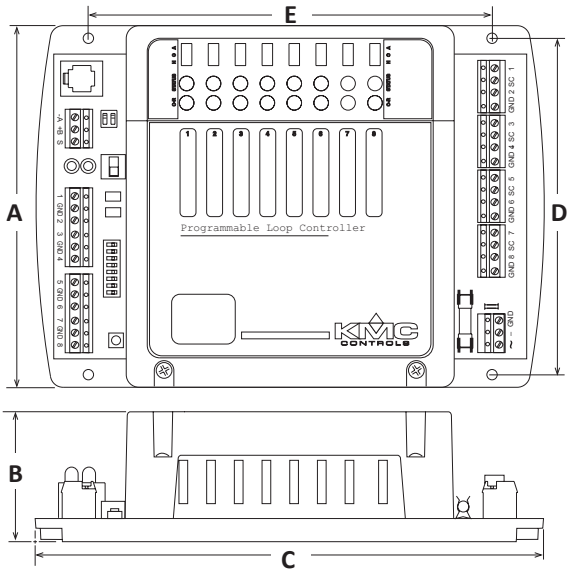
Output override boards (HPO-6700 series)

NOTE: See the (P/N 902-035-10) HPO-6700 series data sheet (only the HPO-6701/6704 boards are approved for smoke control applications)

Power transformers

XEE-6111-40	Transformer, 120-to-24 VAC, 40 VA, single-hub
XEE-6112-40	Transformer, 120-to-24 VAC, 40 VA, dual-hub
XEE-6112-100	Transformer, 120-to-24 VAC, 96 VA, dual-hub (required in smoke control applications)

Dimensions



A	B	C	D	E
5.38 in.	1.98 in.	7.55 in.	5.0 in.	6.0 in.
137 mm	50 mm	192 mm	127 mm	152 mm

Installation

Supply voltage

24 volts AC (–15%, +20%), 60 Hz, 36 VA, Class 2 only, non-supervised (all circuits, including supply voltage, are power limited circuits)

Weight

14 ounces (395 g)

Case material

Black flame-retardant plastic

Environmental limits

Operating	32 to 120° F (0 to 49° C)
Shipping	–40 to 140° F (–40 to 60° C)
Humidity	0 to 95% RH (non-condensing)

Regulatory

- FCC Class B, Part 15, Subpart B
- CE compliant
- UL 916 Energy Management Equipment listed
- UL 864 Smoke Control Equipment listed (for smoke control applications, see Smoke Control Manual For KMDigital Systems, P/N 000-035-09)

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