KMD-7003, 7053

Direct Digital VAV Controllers – Fan Induction Units

Description

The KMD-7003/7053 is a direct digital controller, integrated into an actuator, designed primarily for VAV fan induction terminal units. This controller will operate independently in a stand-alone mode or jointly in a peer-to-peer network sharing system data and/or programs. Standard VAV fan control sequences have been incorporated to provide pressure independent control of a VAV fan induction unit. Accessible control basic programming allows customizing of the standard sequences for adding temperature setback, overrides and other user defined sequences.

Each controller has an on board flow-through sensor for use with a single or multi-point differential pressure measuring station or Pitot tube. The sensor utilizes twin platinum-ceramic resistance temperature sensors for control accuracy to within 3% of the setpoint.

Features

KMD-7003/70053 Controllers feature:

- 4 Inputs, software selected for analog or digital with one dedicated to the flow sensor.
- 4 Outputs, one software selected for analog or digital, one Triac, one normally open relay, and one dedicated to the actuator.
- 32 Variables, software selected for analog or digital.
- 4 P, PI, and/or PID controllers.
- 5 user defined control basic programming areas.
- 2 Trend Logs, each log storing up to 4 selected elements at user defined intervals.
- 2 Run-Time totalizer and event logs.
- 2 Control groups for organizing selected elements in real-time display.
- 3 Custom defined lookup Tables.
- Weekly schedule w/ Holiday/Special event overrides
- Password and security level protection

Applications

Typical Applications include cooling, heating, cooling with reheat, or cooling with time proportional reheat.

Accessories

The following accessories are available:

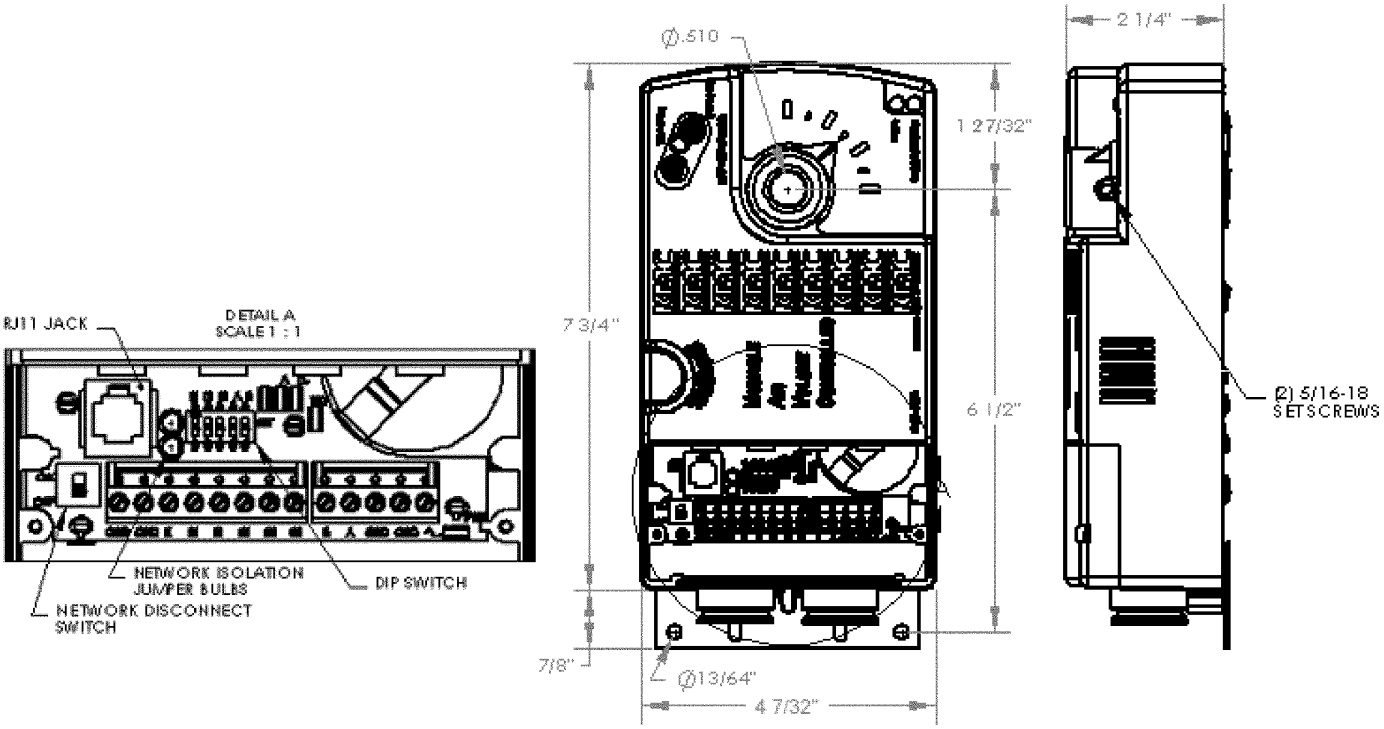
HFO-0011	3/8" shaft adaptor

Models

The following controller models are available:

KMD-7003	18°/minute actuator
KMD-7053	60°/minute actuator

Details



Specifications

Supply Voltage	24 VAC -15% / +20%, 10 VA
Communications	RS–485 @ 38,400 baud maximum with Belden 82760 or equivalent 18 AWG twisted shielded, 5.5Ω /1,000 ft. and ≤51 pf/ft (maximum 4,000 feet w/o repeater)
Networked Points	32 in / 32 out
Inputs	3 universal analog or digital
Analog	0 to 5 VDC
Digital	On/Off
Impedance	10KW
Outputs	1 universal analog or digital
Analog	0–10 VDC (30ma max.)
Digital	0/12 VDC (50ma max.)
Short Protection	Yes
1-Triac	Zero crossing, 12 VAC min., 30VAC max voltage, 20 mA min., 1A max. current
1-Relay	30 VAC/VDC, 2 A Max
Enclosure	Black flame retardant polymer UL94–5V plenum rated
Connections	Wire clamp, 12–22 AWG, Cu
Velocity Sensor	Platinum-ceramic flow-through, 0 to 3000 FPM (15.24 m/s) using 24", 1/4 FR tubing and SSS-1000 series flow pickups. Range dependent upon DP pickup, tubing size/length and connections
Torque	50 in-lb. min.(5.7Nm), 70 in-lb. max.(7.9Nm)
Angular Rotation	0 to 95°, end stop adjustable @ 45/60/90° rotation
Motor Timing	
KMD-7003	18°/minute @ 60 Hz. 15°/minute @ 50 Hz.
KMD-7053	60°/minute @ 60 Hz. 50°/minute @ 50 Hz.
Weight	2.4 lbs. (1 kg)
Approvals	UL 916 Energy Management Equipment, FCC & CE
Ambient Limits	
Operating	32°–120°F (–0°–49°C)
Shipping	–40°–140°F (–40°–60°C)
Humidity	0–95% RH, non-condensing

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