

Excel 15 W7760A Building Manager

SPECIFICATION DATA



GENERAL

The Excel 15 W7760A Building Manager is a LONMARK® compliant device that can be used to monitor and control HVAC equipment and other miscellaneous loads in a distributed network. The optional lithium battery (not included, purchased locally) allows continuous power so trend logs and alarms can be maintained for up to four continuous years. The W7760A Building Manager communicates via the 78 kilobaud Echelon® LONWORKS® Network, using a free topology transceiver (FTT).

Building Management Features Supported

Real-time clock with automatic daylight savings adjustment.

Time-of-Day Schedules

(For Up to 20 Excel 10s and/or T7300s):

Eight schedules each with seven weekdays, three special days and two temporary day schedules. Each schedule includes up to six mode changes per day between occupied, standby and unoccupied. Includes 20 exception/holiday date ranges.

FEATURES

- Real-time clock with time synchronization and automatic daylight savings time adjustment.
- Time-of-day scheduling.
- Coordinates alarms, reporting, and dial-out.
- Energy history, bypass and equipment runtime logging; up to four years continuous backup capabilities with optional lithium battery (purchased separately).
- Programmable control of mechanical equipment and auxiliary points.
- 16 trends, continuous, periodic, delta and one-shot.
- Configurable inputs/outputs are expandable with up to three Excel 10 remote input/output (R/I/O) devices.
- Eight optically isolated digital outputs are capable of either high- or low-side switching.
- Easy programming with LONSPEC™ Software.
- Two-piece construction for easy installation.
- Easy access to all I/O points for checkout while operational.
- LonTalk® Network communications protocol.
- LONWORKS® Free Topology Transceiver (FTT).

Alarm Management (For Up to 20 Excel 10s and/or T7300s): Alarm prioritization, routing, multi-site dial-out and history log.

Flexible Trending and Log Files: Energy and alarm history, bypass usage and runtime log with backup capability.

Remote Equipment Monitoring and Control: Dial-out on critical alarm and buffer full.

Event Counting.

Control Techniques Supported

W7760A Building Manager provides configurable control loops for a wide variety of applications.

(Each of the following control strategies can be configured with a combination of the following features, up to the maximum number stated for each loop type):

- Demand Limit Control (intelligent shed and restore).
- Setpoint Reset.
- Adaptive Intelligent Recovery™.
- Time-of-Day Bypass.

General Purpose Configurable (PID) Control Loops (six maximum):

Modulating or staged output (up to four stages).
Built in Auxiliary output to coordinate pumps or fans.

General Purpose Configurable (Non-Linear) Control Loops. (Improved stability over PID, six maximum):

Modulating or staged output (up to four stages).
Built-in auxiliary output to coordinate pumps or fans.

Standard Thermostat Control Loops (two maximum):

1- or 2-stage heat, 1- or 2-stage cool and fan.

Heat Pump Control (two maximum):

2-stage compressor, reversing valve, Aux Heat and fan.

Start/Stop Loops (eight maximum loops, six events per day).

Demand Limit Control of internal loops and external Excel 10s (up to 34 loads).

SPECIFICATIONS

Inputs/Outputs

Four dry contact digital inputs.
Eight 0-10V, 0-10,000 ohms (20K NTC) analog inputs.
Two 4-20 mA analog outputs.
Eight 24 Vac Triac digital outputs (500 mA maximum up to 80 VA).
One 21 Vdc power supply for auxiliary devices with a maximum current of 70 mA.

Communications

The W7760A Building Manager uses a Free Topology Transceiver (FTT) to support a polarity-insensitive free topology wiring scheme for star, loop and/or bus wiring. The maximum number of nodes per segment is 60. The maximum number of nodes in a two-segment FTT network is 120, when using a repeater between the two segments. Each W7760A Building Manager can support up to twenty Excel 10 Controllers and three remote input/output (RI/O) devices, with a total of up to twenty devices, allowing alarm capabilities. Four Building Managers can coexist on a single network.

Power Supply Requirements:

20 VA maximum, 50/60 Hz, with no digital outputs.
100 VA maximum, 50/60 Hz, with digital outputs.

Optional Lithium Battery:

Purchase a Tadiran Telecommunications Ltd. lithium utility metering battery, model number TL-5276/W. (Do not use a substitute model.)

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Environmental Ratings:

Operating Temperature: 32° to 113°F (0° to 45°C).
Shipping Temperature: -4° to 122°F (-20° to 50°C).

Relative Humidity: 5% to 95% noncondensing.

Mounting:

The W7760A mounts on a standard 4 in. x 4 in. junction box, panel, wall or DIN Rail. LONMARK® Bus operator access connection is provided by using a Serial LonTalk® Adapter (SLTA).

Dimensions (H/W/D):

W7760A Cover Assembly: 6-5/32 in. (156 mm) x 10-19/32 in. (259 mm) x 3-7/32 in. (82 mm).
W7760A Subbase: 6-1/8 in. (156 mm) x 9-7/8 in. (251mm) x 5-1/2 in. (140 mm).

Approvals:

Underwriters Laboratories (UL) Listed: UL916 (E87741) as Class 2 device.
Canadian Underwriters Laboratories (cUL) Listed: UL916 (E87741) as Class 2 device.
Federal Communications Commission Listed: Part 15 Subpart J, Class A.
Federal Communications Commission Limits: Meets Class B limits with Fair-Rite 0443164151 or equivalent Honeywell part no. 229997CB.
European Community Mark: Conforms to European Consortium Standards.
National Electrical Manufacturers Association: Meets enclosure standard 1.

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