

## LTEC Variable Air/Constant Volume Controller



### Description

The LonMark<sup>®</sup>-compliant LTEC<sup>™</sup> Variable Air Volume/Constant Volume (VAV/CV) Controller provides direct digital control of pressure independent, variable air volume, and constant volume zone level routines. The versatile LTEC VAV/CV Controller is designed to reside on the Siemens Building Technologies, Inc. APOGEE<sup>®</sup> for LonWorks<sup>®</sup> network, providing seamless interaction with all LonMark products. The LTEC offers cost-effective flexibility by allowing selection of the best-point configuration platform designed to meet any VAV/CV application requirement

### Features

- Conforms to the LonMark interoperability guidelines enabling information sharing with other LonMark products from other vendors
- LonMark-compliant with Space Comfort Controller functional profile number 8502

Network-wide monitoring and commanding from the Room Sensor and/or LTEC controller

- Advanced PID control minimizes offset and maintains tighter set-point control
- Return from power failure without operator intervention
- Separate minimum and maximum air volume settings for heating and cooling modes

### Applications

The LTEC VAV/CV Controller can be configured to control a variety of VAV and CV pressure independent zone applications, including:

- VAV/CV cooling only
- VAV/CV heating only
- VAV/CV with hot water reheat
- VAV/CV with electric reheat (up to three stages) and/or baseboard radiation
- VAV/CV cooling/heating switchover
- VAV/CV with hot water reheat and/or baseboard radiation
- VAV fan powered series or parallel with hot water reheat
- VAV fan powered series or parallel with electric reheat (up to three stages)

### Hardware

#### Controller Board

The LTEC is available in the following styles:

- 4 Inputs, 6 Digital Outputs, 1 Room Sensor port, 1 Air Flow Sensor
- 5 Inputs, 8 Digital Outputs, 2 Analog Outputs, 1 Room Sensor port, 1 Air Flow Sensor

The LTEC is a Neuron-based platform that executes a zone-level application and allows communication to all LonMark devices. The controllers are shipped with pre-loaded applications, reducing engineering start-up time.

### Room Sensor

The room sensor connection to the controller board consists of a quick-connect RJ-11 jack. This streamlines the installation and reduces the LTEC Controller's start-up time.

### Differential Pressure Sensor

The Differential Pressure Sensor is easily connected to the box air-velocity sensing elements to provide measurement of the differential pressure. The measured value is converted to actual airflow in CFM (l/s) by the LTEC VAV/CV controller.

### Spare Input/Output Points

The LTEC Controller, depending upon the application used, may have up to 3 input and 2 output spare points available. These points can be used to perform local connection and network control for devices located in close proximity to the LTEC Controller, therefore reducing costs associated with installation.

## Specifications

Specification	
Processor Type	Neuron 3150
Processor Clock Speed	10 MHz - Neuron
Network Communication Speed	TP/XF-10 (78.8K bps)
Memory Size	49 K Flash Memory 10 K SRAM
Local Network Communication Interface	Lon port
Voltage Requirements	24 Vac @ 50/60 Hz
Power Consumption	5 VA plus loads
Ambient Operating Environment	+32°F to +122°F (0°C to +50°C) 5 to 95% RH (Non-condensing)
Agency Listings	UL/CUL 916 PAZX/PAZX7 (Enclosed Energy Management)

Regulatory Compliance	FCC Part 15, Class B CISPR 22 Class B CE Mark
Dimensions:	8.78" H x 6.94" W x 1.85" D (223 mm x 176 mm x 44 mm)
Weight	1.13 LBS (.51kg)

### Wiring Recommendations

Input/AO	20 to 22 AWG
DO	18 to 22 AWG
Power	16 to 18 AWG
LonWorks Network	22 AWG Level IV per NEMA standards

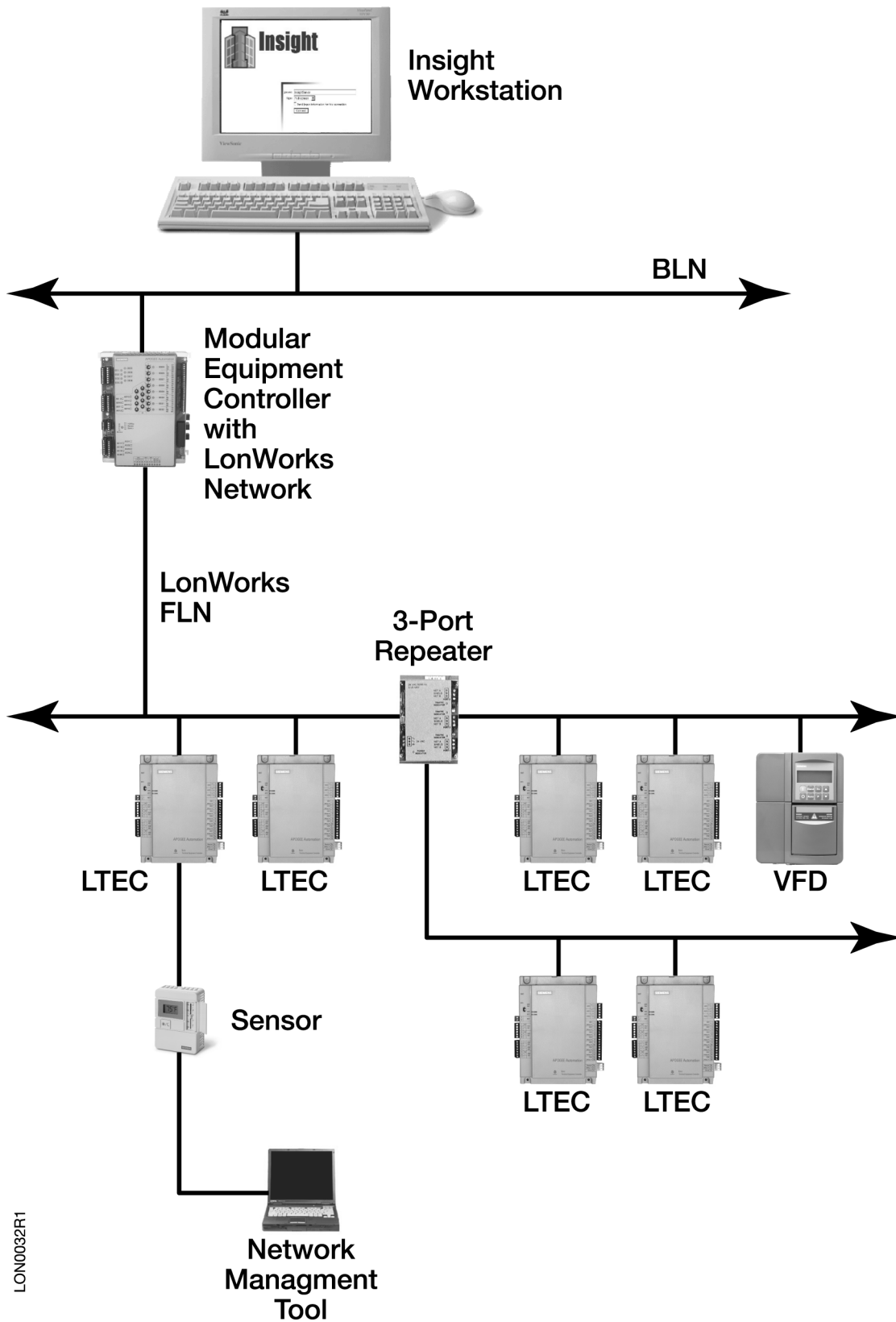
### Transformer Requirements and Recommended Voltages

Type	Class 2, 24 VAC, 50/60 Hz
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## Ordering Information

### Controllers

Description	Product Number
LTEC Single Duct VAV/CV Controller 4IN 6DO 1DPS 4 IN (2) 100 K $\Omega$ Thermistor or Dry Contact/ (2) 0-10 Vdc, 4-20 mA or Dry Contact 6 DO 24 Vac, 12VA, Triac 1 DPS 0 to 2" Differential Pressure Sensor 1 RS 10 K $\Omega$ Thermistor Room Sensor Module	550-530
LTEC Single Duct VAV/CV Controller 5IN 8DO 2AO 1DPS 5 INI (2) 100 K $\Omega$ Thermistor or Dry Contact/ (3) 0-10 Vdc, 4-20 mA or Dry Contact 8 DO 24 Vac, 12VA, Triac 2 AO 0-10 Vdc 1 DPS 0 to 2" Differential Pressure Sensor 1 RS 10 K $\Omega$ Thermistor Room Sensor Module	550-532
Documentation	Product Number
LTEC Owners Manual	550-311
LonWorks for APOGEE Library CD	550-312



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