

SMART STAT™**FEATURE SUMMARY**

- **Free Topology LONWORKS Communication**
- **Attractive architectural-grade packaging**
- **Backlit LCD**
- **Preprogrammed for single-stage RTU control**
- **5 relays that can be reprogrammed**
- **4 Universal Inputs (Digital, Resistance 10K, 0-5V Analog)**
- **Neuron 3150 processor**
- **Custom Application Programmable over the LON network**
- **2 Year Limited Warranty**

The SMART STAT™ ST-35 is a LONWORKS® technology based thermostat controller using a Neuron® 3150® processor that communicates over a Free Topology LON® network.

The ST-35 is designed for control of package, heat pump or fan coil units. Single stage, multi-stage and fan coil units can be directly controlled with the five (5) relay outputs. Additional universal inputs on the ST-35 can allow for Remote temperature sensing/monitor, compressor status, humidity monitoring, CO2 monitoring, fan status, motion sensor inputs, valve position feedback. There are four (4) universal inputs for sensing analog (0-5V), digital (0-5V), or resistive (10Kohms) inputs.

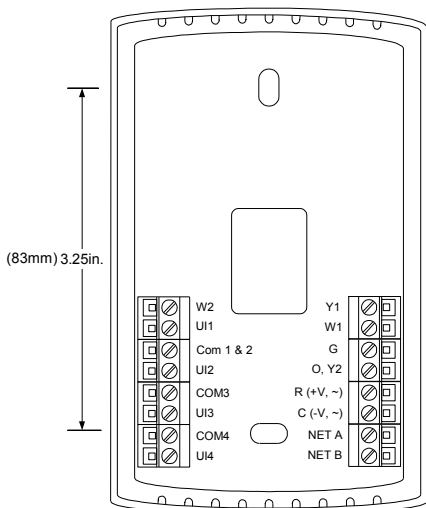
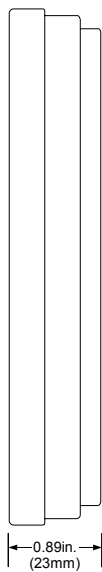
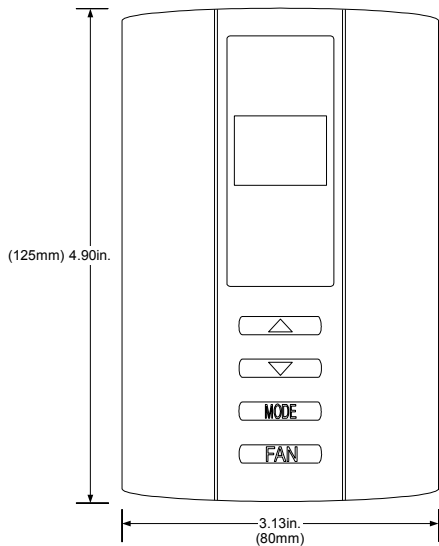
Factory programmed features include: local effective set point control with limits that can be changed via the network; four application control modes: auto., heat, cool, and off; automatic or continuous fan operation; network broadcast of local temperature, effective set point, and terminal unit status; temperature offset, dead band and control delta adjustment from the network.

Various functional profiles can be downloaded into the thermostat from the network allowing the ST-35 versatile usage in many thermostat control applications. These application profiles can be obtained by contacting Smart Controls or custom applications can be developed using VisualControl Graphical Programming from Smart Controls. Each application profile provided by Smart Controls has a plug-in that can be launched from a LNS network management tool to set-up, monitor and control the ST-35.

Network connectivity is made easy with a discretely placed service pin push button and service pin LED accessible at the top of the ST-35 enclosure. The unit does not need to be removed from its base or wall, if wired, to establish a network connection.

Available Application Profiles Include, but are not limited to the following:

- Single Stage Package/Roof Top Unit (Factory Default)
- Single Stage Heat Pump
- Two Stage Package/Roof Top Unit
- Two Stage Heat Pump
- Fan Coil Unit



**Pending
Agency Approvals**



Manufacturing location
certified to ISO 9002

Specifications:

General

Communication: LONTALK™ Protocol
Transceiver: FTT, Free Topology
Processor: Neuron 3150 @ 20 MHz
Memory: 64K bytes FLASH
 2K bytes SRAM (Neuron)
 0.5K bytes EEPROM (Neuron)

Power

Nominal Input Voltage: 24 VAC/DC
Input Voltage Range: 21-28 VAC or 21-39 VDC
Typical Consumption: 3 VA
Maximum Consumption: 6 VA

Environmental

Operating Temperature: 0 °C to +50 °C, 32 °F to 122 °F
Storage Temperature: -20 °C to +70 °C, -4 °F to 158 °F
Relative Humidity: 5% to 95% (non-condensing)

Inputs (Internal)

Number: 1
Temperature Sensor: Degrees °F or °C
Accuracy: ±0.5 °C (0 to 50 °C)

Inputs

Number: 4
Voltage: 0-5 Volts
Thermistor: Type 2, 3: 10Kohms (25°C, 77°F)
Digital: Dry Contact
Resolution: 12 bits
Accuracy: ±1% FS (25°C, 77°F)
Protection Circuitry: Transient Over voltage, ESD

Outputs

Number: 5
Digital: Relay 1.0 A @ 24 VAC
Protection Circuitry: ESD

Enclosure

Dimensions: L 4.90" x W 3.13" x H 0.89"
 (125 x 80 x 23 mm)

Warranty

Period: 2 Years (Limited)

Document Number: 37-0188, ver. 1.0.0

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