

ETC

Multi-Functional
Electronic
Thermostat
Controller



ETC direct-digital control modules accurately control the heating, cooling, fan and outside-air functions of standard HVAC units. Available features include indoor or outdoor installation, modulating outside air damper control and dehumidification control.

LOGIC ONE[®] – *technology you can rely on*

Novar's LOGIC ONE Advanced Building Control System delivers better reliability, greater versatility and more standard features than any other building control system on the market. LOGIC ONE technology is designed to maximize the operational efficiency of any HVAC or lighting system. The result: lower energy costs, increased comfort, and reduced equipment maintenance.

Bottom Line: With Novar You Know It's Exceptional

NOVAR[®]
CONTROLS

With Novar, you know.

LOGIC ONE



Specifications



Electronic Thermostat Controllers manage HVAC units having up to 2 stages of heating and 2 stages of cooling. The module also controls fan and damper operation. The ETC combines comfort control, equipment protection and energy-management capabilities. Remote alarming and diagnostics round out this versatile component.

IOM/2

Hawk!

ETC

ETM

HPC+

UVC

VAV

Physical Characteristics

Height:	5.5 inches.
Width:	8 inches.
Depth:	1.875 inches.
Weight:	1.75 lbs.
Mounting:	Four base-mounting holes allow fastening to interior or compartment wall.

Operating Environment

Temperature:	ETC-1 and ETC-2: Room temperature, not intended for outdoor installation. Maximum allowable temperature is 100° F (38° C). ETC-3 and ETC-6: -40° to 158° F (-40° to 70° C). Suitable for outdoor installation.
Humidity:	0 to 95% relative, noncondensing.

Electrical

Voltage:	24VAC (Class 2).
Consumption:	8VA.
Analog Inputs:	Dedicated.
Digital Inputs:	Contact closure only.
Analog Outputs:	0 to 10VDC, 1mA.
Digital Outputs:	24VAC, 1 ampere (pilot duty).
Status Indication:	Schedule-status indicator LED and relay-status LEDs.

Special Circuits/Diagnostics

Low Voltage Detect:	Senses proper operating voltage.
Temperature Sensor Monitor:	Verifies operation of temperature sensors.
Watch Dog:	Monitors and ensures ETC timing and operation.
Fail Safe:	Programmed setpoints held in nonvolatile PROM.
Surge Suppression:	All inputs/outputs protected against lightning-induced surge or voltage transients.
Low Limit Protection:	Outputs programmable to respond to low temperatures.

Network Communications

Method:	RS-485, isolated.
Cable (network):	2-wire, shielded cable. Belden 8761 or equivalent.

Specifications subject to change without prior notification.

Listed Device, U.S., UL File #E90949(N)
Listed Device, Certified for Canada, UL File #E90949(N)

Options

Four Models Available: ETC-1, ETC-2 (Indoor installation only).
ETC-3, ETC-6 (Suitable for outdoor installation).

Zone Temperature Sensors: RTS-UVC - Remote Temperature Sensor.
WTS-UVC - Standard wall-mount, nonadjustable.
FTS-3 - Futura wall-mount, nonadjustable.
FTS-3A - Futura wall-mount, with integral setpoint adjustment dial.

Sensor Cable: 100-ft. maximum.

ASHRAE Compliance

Cycle II ventilation control on units with analog damper outputs.

Input/Output Points

Inputs: **Total - 6.**
Zone temperature.
Supply air temperature.
Zone setpoint adjustment (except ETC-6).
Timed override.
Fan status.
Dirty filter indication.
Humidity (ETC-6 only).

Outputs - ETC-1: **Total - 6.**
Heat 1 (digital).
Heat 2 (digital).
Cool 1 (digital).
Cool 2 (digital).
Fan (digital).
Damper (analog).

Outputs - ETC-2: **Total - 6.**
Heat 1 (digital).
Heat 2 (digital).
Cool 1 (digital).
Cool 2 (digital).
Fan (digital).
Damper (digital).

Outputs - ETC-3*: **Total - 6.**
Heat 1 (digital).
Heat 2 (digital).
Cool 1 (digital).
Cool 2 (digital).
Fan (digital).
Damper (analog).

Outputs - ETC-6*: **Total - 6.**
Heat 1 (digital).
Heat 2 (digital).
Cool 1 (digital).
Cool 2 (digital).
Fan (digital).
Damper (analog).

*Suitable for outdoor installation.

