![EasyIO logo]

The ESRT-55 series smart thermostats offer a modern flush mounted slim design look for heating or cooling control. The thermostats can be used for various zones. All ESRT-55 series thermostats have 3.5" backlit color touchscreen.
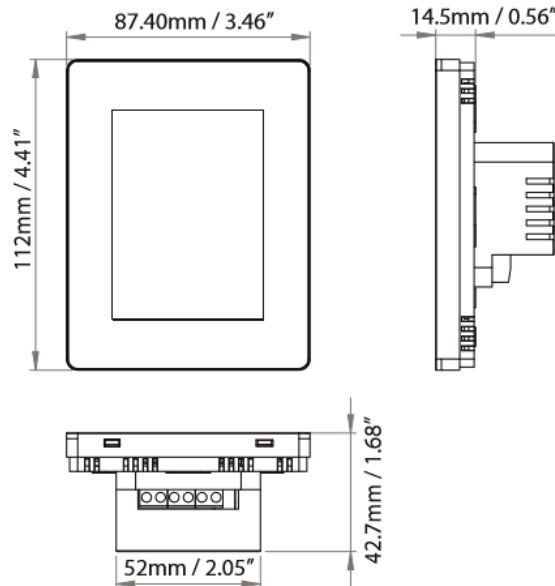
The MOD models have built-in Modbus RTU communications and the BAC models provide BACnet MSTP communications. The thermostats can also be configured to be used as a lighting and/or air conditioning interface.

Features

- 24VAC/DC Power Supply
- 3.5" Inch Backlit Touchscreen Display
- BACnet or Modbus Communication Models
- Heating and/or Cooling Control
- Flush Mounting in the US, UK or EURO Wall Mounting Box
- Attractive Modern Designer Look
- Built-In Temperature Sensor
- Two Remote NTC10 Sensors; external control (alternatively outside temp display) or floor sensor
- ECO, Off and Holiday Modes with Fabric Frost Protection
- 24V 5A Switched Output Relay Rating
- Digital Input for Overrides
- ±2% rH Relative Humidity Option

Model Type

Model	Description
ESRT-55-MOD	Modbus 3.5" Touchscreen Thermostat, Non-Programmable, 24Vac/dc Power Supply, Non-UL
ESRT-55-BAC	BACnet MSTP 3.5" Touchscreen Thermostat, Non-Programmable, 24Vac/dc Power Supply, Non-UL
ESRT-55-MOD-HUM or ESRT-55-BAC-HUM	Relative Humidity Option, +/-2%rH

Dimensions

Technical Data

Power Supply	Power supply	24VAC/DC -10%/+15% max. 80mA
	Power Consumption:	At 24VDC max 80mA
Display	Touchscreen	3.5" Backlit Touchscreen, 320 x 480 pixels, 255K colors
Signal Outputs	Relay Output	1 x 5A (res) 24Vac/dc Relay, SPST
Signal Inputs	Built-In Sensor	0..50°C (32..122°F) ±0.5°C (±0.9°F) @ 25°C (@77°F)
	Resistive Inputs	2 x External NTC10K3A1 Sensor
	Digital Input	1 x Digital Input, Volt-Free Contact, Impedance <1KOhm
Optional Sensing	Humidity (RH Option)	
Characteristics	Range	0..100%rH
	Accuracy	±2% rH (within 20..80% rh)

1

Communication	Modbus (-MOD models)	
	Protocol	Modbus RTU
	Interface	RS485; maximum 63 devices
	Addressing	1..247 via Touchscreen
	Communication	9k6/19k2/38k4/57k6/76k8 Baud; Parity None/Even/Odd, 1 or 2 Stop Bits (adjustable through Touchscreen)
	BACnet (-BAC models)	
	Protocol	BACnet MSTP
	Interface	RS485; maximum 63 devices
	MAC Addressing	1..127 via Touchscreen
	Device ID	Default 651000 + MAC Address, Adjustable
	Communication	9k6/19k2/38k4/57k6/76k8 Baud; Parity None/Even/Odd, 1 or 2 Stop Bits (adjustable through Touchscreen)
Connections	Terminal Connections (Relay & Power Supply)	Solid and Stranded Cable Maximum Size: Solid; 0.05-2.5mm^2, Stranded: 0.05-1.50mm^2 / 14 to 30 AWG (UL) Rising Clamp: Size 2.5 x 2.2mm
	Terminal Connections (Low Voltage Terminals)	Solid and Stranded Cable; 90° Angle for Wiring Maximum Size: 0.05 to 1.5mm^2 (EN ISO) / 14 to 30 AWG (UL) Rising Clamp: Size 2.5 x 1.9mm
Environmental Conditions	Operating	
	Temperature	0°C...+50°C (32..122°F)
	Humidity	0...95%rh (non-cond.)
Standards	CE Conformity	CE Directive 2004/108/EC (EMC), 2006/95/EC (LVD) EN61000-6-3: 2001 (Generic Emission) EN61000-6-1: 2001 (Generic Immunity) EN60730-1:2016 (Low Voltage) EN6100-4-2/4/5/11 (ESD, Transient, Surges, Interruptions)
	Degree of Protection	IP20
Housing	Housing Material	Polycarbonate Plastics, Self Extinguishing
	Mounting	Wall or Junction Box Mounting
	Dimensions	W88mm (3.46") x H112mm (4.41") x D43mm (1.68") Flush: W88mm (3.46") x H112mm (4.41") x D14.5mm (0.57")
	Weight	220g

Wiring Connections