

## Modulating Thermostat LX-TH3-24 Series

The LX-TH3-24 Series Modulating Thermostats are fully configurable, RS-485 Modbus RTU networked digital thermostats, suitable for modulating controls of 2-pipe or 4-pipe cooling/heating FCU or VAV systems.

### Details

The thermostat measures temperature of a room or distant space and then output 0(2)-10VDC signal by proportional-integral algorithm to control cooling/heating devices and use relays to switch fan speeds and extra on/off devices in the HVAC system to maintain the room space temperature in a desired temperature setpoint. The 3-speed fan can be operated in the mode of auto changeover or manual selected continuous mode.

The thermostat has a big LCD screen showing room temperature and set point. It also has additional digital inputs for energy saving features, for example changing between occupied/unoccupied setpoints and to switch off unit when window or balcony door is opened.

### Order Codes

<b>LX-TH3-24-FCU-4CHM-MB</b>	4-pipe heating/cooling, auto-switching
<b>LX-TH3-24-FCU-2CHM-MB</b>	2-pipe heating/cooling, manual switching
<b>LX-TH3-24-FCU-CM-MB</b>	Cooling only
<b>LX-TH3-24-VAV-CM-MB</b>	Cooling only, VAV

See detailed Wiring Diagrams at the end of this Data Sheet for connection details of each model.

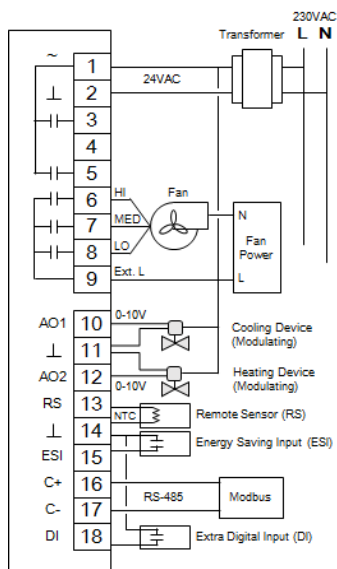
- Stylish communicating thermostat
- Cooling/heating controls
- Models for 2-pipe and 4-pipe systems
- Modulating 0-10V control output
- RS-485 Modbus RTU protocol



### Technical Data

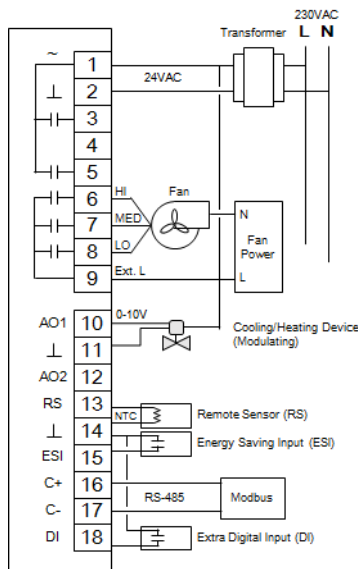
Operating Voltage:	24VAC 50/60Hz
Communication Interface:	RS-485, 2 wires, Modbus/RTU protocol, 19.2 Kbps (configurable)
Temperature Display Range:	-30 ... 120 °C
Temperature Display Unit:	0.1 °C/°F
Temperature Accuracy:	±0.5 °C
Setpoint Range:	0 ... 50 °C
Analog Output Signal:	0(2)-10 VDC or 10-0(2) VDC, Max. 3mA
Relay Output:	SPST relays for fan control: 2A/ 250VAC, inductive load
Remote Sensor Input Interface:	For connecting external NTC Thermistor 3Kohm
Energy Savings Input Interface:	Triggered by Normally open (N.O.) or normally closed (N.C.) dry contact
Extra DI Interface:	Triggered by Normally open (N.O.) or normally closed (N.C.) dry contact
Control Performance:	Proportional plus Integral (PI) adaptive control
Operating Temperature:	0 - + 50 °C
Humidity:	5 - 95% RH non-condensing
Wiring:	Screw-in terminals, 14 to 22 AWG wires or 1.5 mm <sup>2</sup> wires
Size:	118mm (H) x 94mm (W) x 34mm (D)
Mounting:	Mounts directly onto wall or standard junction box (hole pitch 60 mm) or standard vertical junction box (2x4 inch, hole pitch 83.5 mm)
Certificates:	CE certified

### Wiring Diagrams



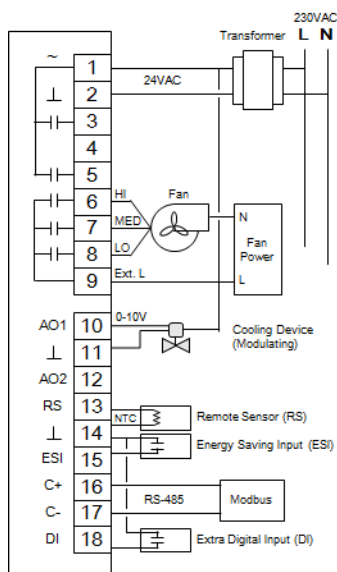
**LX-TH3-24-FCU-4CHM-MB**

4-pipe heating/cooling, auto-switching



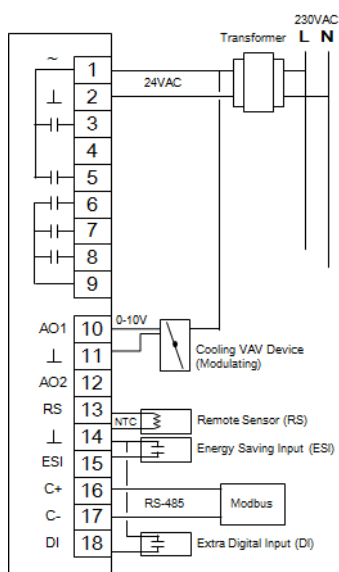
**LX-TH3-24-FCU-2CHM-MB**

2-pipe heating/cooling, manual switching



**LX-TH3-24-FCU-CM-MB**

Cooling only



**LX-TH3-24-VAV-CM-MB**

Cooling only, VAV