



TFL Series thermostat for the EFC fan coil controller

Features:

- Used to configure and operate the EFCB fan coil controllers
- Selectable internal or external temperature sensor (10 K Ω)
- Humidity sensing (TFLH24 and TFLGH24 only)
- Large LCD with backlight
- Icon-driven information and 1 line of text information
- Three wire connection between thermostat and controller
- Selectable Fahrenheit or Celsius scale
- Network service port via on-board mini USB connector

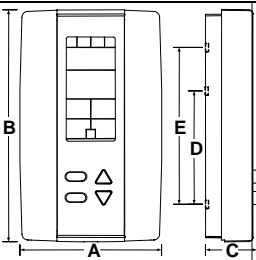

TFL24
TFLH24
TFLG24
TFLGH24

CO₂ Features (TFLG24 and TFLGH24 only)

- Built-in, self-calibrating, non-dispersive infrared (NDIR) CO₂ sensor
- CO₂ measurement display (lockable)

Technical Data

TFL24 / TFLH24 / TFLG24 / TFLGH24

Temperature Sensor	
<i>Setpoint range</i>	10°C to 40°C [50°F to 104°F]
<i>Control accuracy</i>	Temperature: $\pm 0.4^\circ\text{C}$ [0.8°F]
<i>Display resolution</i>	$\pm 0.1^\circ\text{C}$ [0.2°F]
CO ₂ Sensor (TFLG24 and TFLGH24 only)	
<i>Operating principle</i>	Self-calibrating, Non-Dispersive Infrared (NDIR)
<i>Sensor Range</i>	0 to 2000 ppm
<i>Setpoint range</i>	100 to 2000 ppm
<i>Accuracy</i>	± 30 ppm $\pm 3\%$ of reading
<i>Response time</i>	2 minutes by 90%
<i>Display resolution</i>	1 PPM
Humidity Sensor (TFLH24 and TFLGH24)	
<i>Sensor range</i>	5 to 95%RH
<i>Display resolution</i>	0.1%
<i>Electrical connection</i>	Three wires to EFCB controller and two wires to BACnet/Modbus network 0.8 mm ² [18 AWG] minimum
<i>Network service port</i>	Mini USB connector
Power supply	24Vac or 24Vdc
Power consumption	1 VA
Operating temperature	0°C to 50°C [32°F to 122°F]
Storage temperature	-30°C to 50°C [-22°F to 122°F]
Relative humidity	5 to 95 % non condensing
Housing degree of protection	IP 30 (EN 60529)
Weight	120 g. [0.25 lb]
Dimensions	 <p> A = 2.85" 73mm B = 4.85" 123mm C = 1.00" 24mm D = 2.36" 60mm E = 3.27" 83mm </p>
Certifications	Conforms to UL STD 873 Certified to CSA STD C22.2 No. 24-93 
Note	The thermostat functions only with the EFCB series fan coil controller. All the inputs/outputs are located on the controller except for the temperature, humidity, and CO₂ sensors built-in the thermostat.

Interface

	Display Symbols			Communication Status		Alarm status								
		Cooling ON A: Automatic						Menu set-up Lock		Energy saving mode				
		Heating ON A: Automatic										Programming mode (Technician setting)		Percentage of humidity
		Fan ON A: Automatic												
	Humidity ON 33, 66 or 100% output													

Mounting Instructions

CAUTION: Risk of malfunction. Remove power prior to separate thermostat cover (control module) from its base.

- Remove the screw (captive) holding the base and the front cover of the thermostat.
- Lift the front cover of the thermostat to separate it from the base.
- Pull the cable through the base hole.
- Secure the base to the wall using wall anchors and screws (supplied). Make the appropriate connections.
- Mount the control module on the base and secure using the screw (from step A).

Settings on PC Board & Connections

3 wire cable (TB1 #1, 2 & 3)
 Connect TB1 #6 (A+) & #7 (B-) to EFCB for BACnet service port to work

Mode Selector Jumper
 RUN = Operation Mode
 PGM = Programming Mode

CO2 sensor (TFLG and TFLGH24 only)

Temperature sensor (all models)
Humidity sensor (TFLH24 and TFLGH24 only)

BACnet service port

Warning: Avoid touching the CO2 sensor as this may cause incorrect readings

Mode Selection (JP1)

	<p>RUN: Thermostat is in Operation Mode. Thermostat must be set in this mode to operate properly. If not locked, setpoint and control mode (Heating & Cooling ON, Cooling only ON or Heating only ON) can be modified by the end user.</p>
	<p>PGM: Thermostat is set in Programming Mode. Refer to the following section about all settings description</p>

Recycling at end of life

At end of life, please return the thermostat to your Nepronic® local distributor for recycling. If you need to find the nearest Nepronic® authorized distributor, please consult www.nepronic.com.