

## Proportional Thermostats



Proportional thermostats have long been acknowledged as useful, energy saving controllers for the HVAC industry as well as advantageous regulators of room comfort keeping temperature steady and consistent.

These beneficial qualities are obviously not fulfilled in On-Off thermostats, which fully open the Fan Coil valve until set temperature is achieved and then completely close it until ambient temperature mounts above the set point or drops below it, when the cycle starts over again. Proportional thermostats, on the other hand, gradually adjust power output until the set temperature is maintained rather than shutting it off completely. In this way, proportional power provides excellent control of room temperature.

Meitav-tec's proportional thermostats vary from relatively simple, stand-alone thermostats, Wall or Flush Mount, and all the way up to fully featured, communicating controllers compatible with B.M.S. (Building Management System).

Following is a list of Meitav-tec's prominent proportional thermostats and controllers:

| Product Name                    | Valve Control |          | Heat Element | Fan Speed Control     |
|---------------------------------|---------------|----------|--------------|-----------------------|
|                                 | 0-10 VDC      | 3 wire   |              |                       |
| <b>ETN24-P/PD-FC-SUPER2</b>     | X             |          |              | <b>1, 2 or 3</b>      |
| <b>ETN24-P-1S (Cool Only)</b>   | X             |          |              | <b>1 (*)</b>          |
| <b>ETN24-P-3S-HU (**)</b>       | X             |          |              | <b>3</b>              |
| <b>FMH24-P-1S</b>               | X             |          |              | <b>1</b>              |
| <b>FMH220-P-FC-SUPER</b>        | X             |          |              | <b>1 or 3</b>         |
| <b>FMHC220-P-FC-MDB01 (***)</b> | X             |          |              | <b>1 or 3</b>         |
| <b>FMT24-PD-3S</b>              | X             |          |              | <b>3</b>              |
| <b>TED24-P-3S</b>               | X             |          |              | <b>3</b>              |
| <b>TED24-P-3S Cool Only</b>     | X             |          |              | <b>3</b>              |
| <b>ETN24-PH</b>                 | X             |          | <b>X</b>     | <b>1 or 3</b>         |
| <b>ETN24-PM2</b>                |               | <b>X</b> |              | <b>1 or 3</b>         |
| <b>ETN24-PMH</b>                |               | <b>X</b> | <b>X</b>     | <b>1 or 3</b>         |
| <b>ETN24-PM-3S (Cool Only)</b>  |               | <b>X</b> |              | <b>3</b>              |
| <b>ETN24-P/PM (Cool Only)</b>   | <b>X</b>      |          |              | <b>Damper control</b> |

Remarks:

(\*) Available also in 3 Fan speeds [ETN-24-P-3S(Cool only)]

(\*\*) with Humidity control

(\*\*\*) Contains MODBUS interface to B.M.S.

[Click here to view](#)

[Additional proportional controllers with BMS interface](#)

**Meitav-tec offers various types of proportional output:**

- **P** – 0-10 VDC
- **PM** – Pulse Modulating  
(also called 3-wire, 3 point or floating point)
- **PH** or **PMH** – Proportional in Cool, On-Off in Heat

**To name a few of Meitav-tec's superior, stand-alone, proportional thermostats and controllers:**

- **ETN24-P/PD-FC-SUPER2**

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Wall mount, 24VAC thermostat suitable for a wide array of Fan Coil Proportional valve applications, with either 2 separate proportional (0-10VDC or 2-10VDC) outputs for Cool & Heat applicable in 4-Pipe system, or a single proportional output for both Cool & Heat suitable for 2-Pipe. Number of Fan Speeds (1, 2 or 3) is selectable as well as °C or °F temperature display.



- **ETN24-PM2 series** - with 2 separate Pulse Modulated proportional outputs for Cool & Heat and adjustable Open/Close time for motor (10 to 400 seconds).



- **FMHC220-P-FC-MDB01** - Flush mount, 220VAC thermostat with 2 separate 0-10VDC outputs for Cool & Heat for Fan Coil applications. Available also with RS-485 Modbus protocol for B.M.S. applications.



**Proportional thermostats feature highly valuable qualities:**

- **Significantly reduce electricity costs – economical**
- **Keep room temperature more consistent & accurate Offer optimal comfort & convenience with no ups & downs in room temperature**
- **Keep HVAC system serviceable for many years**

