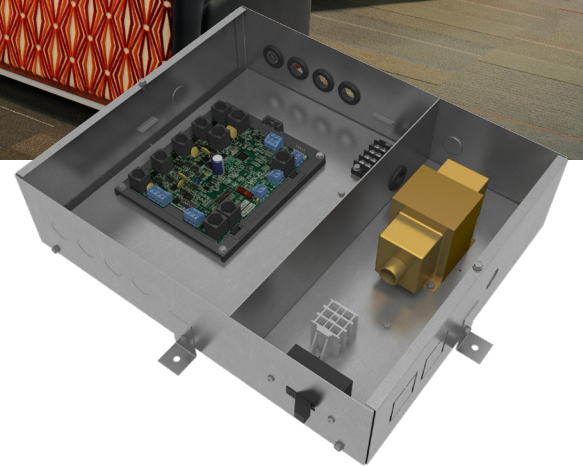


# PCM

## POWER AND CONTROL MODULE



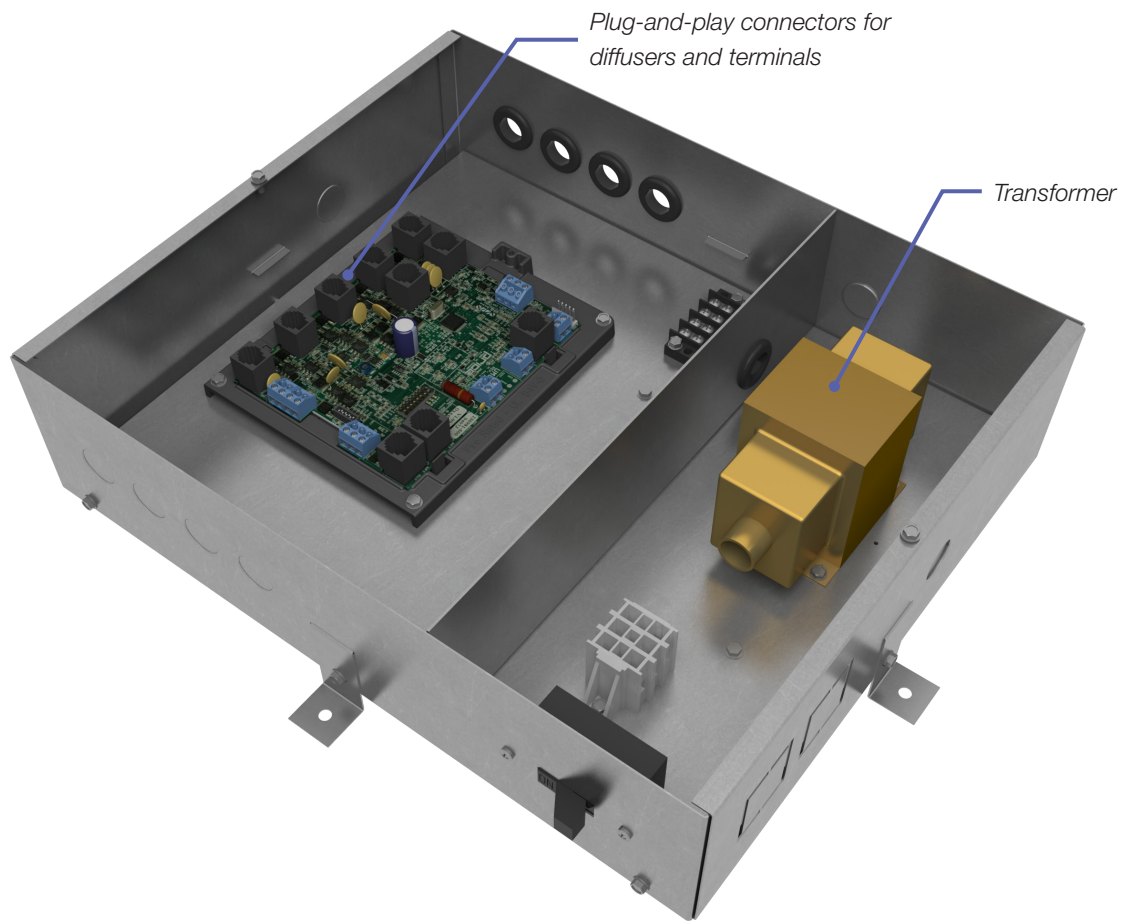
# PCM

## Power and Control Module

---

The Power and Control Module (PCM) is a consolidated power and control enclosure for underfloor applications, integrating seamlessly with all Price underfloor devices. The PCM is equipped with an integral transformer for powering zone controllers, diffusers and terminals. The PCM allows for simple plug-and-play connections, with power and control being delivered via a single cable.

Preprogrammed control sequences are available for all zones and products. These sequences provide a quick, cost effective way for controlling Price diffusers with all the logic for proper operation and calibration of devices.



## VERSATILITY AND MODULARITY

- + Capable of interface with BACnet.
- + Can be used for interior and perimeter applications.
- + Preprogrammed sequences designed for optimal energy use and comfort such as two stage heating design limited to 25% airflow to comply with ASHRAE 90.1.

## EASY TO INSTALL

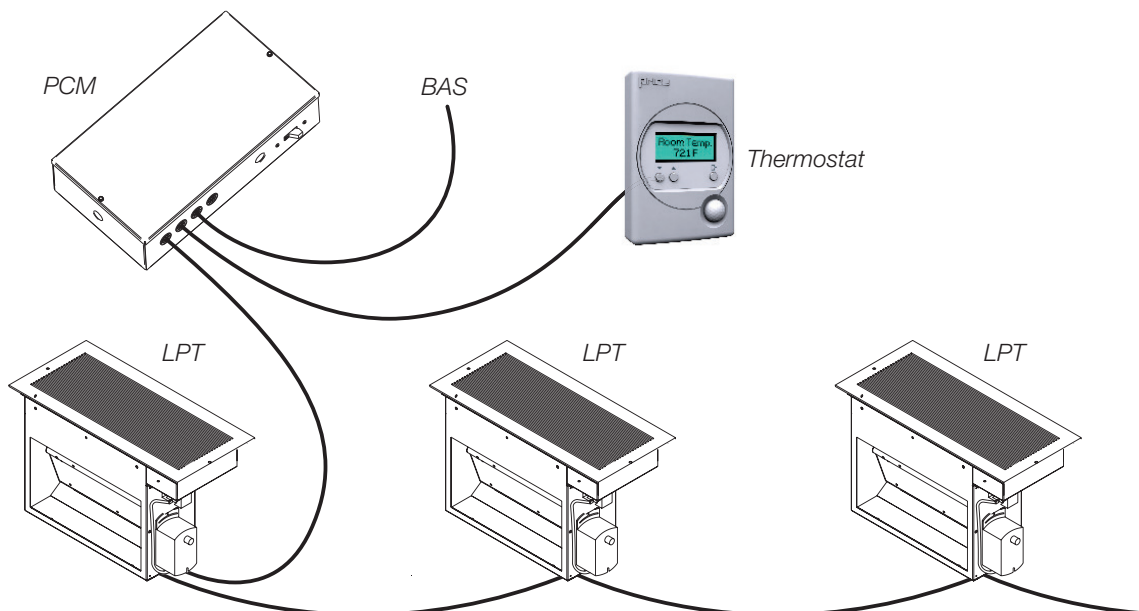
- + Simple install with plug-and-play connections.
- + Only two cables required (RJ45 or RJ12). One cable for both power and control signal, daisy chain arrangement.

## SIMPLE RECONFIGURATION

- + Up to 30 cooling dampers and 12 heaters give room for future expansion.
- + Power and control through a single plug-and-play connection allows for quick rearrangement of devices.
- + Preprogrammed sequences for various interior and exterior applications all using a shared control board allows for quick and simple changes to zone control.

## FEATURES

- + Native BACnet controllers for MS/TP BACnet connection. Third party option allows for interface with zone controllers with BACnet.
- + Up to five RJ12 output jacks used to convey power and control signal to 30 DBV, LFG or MFB remote VAV devices
- + Up to two RJ45 output jacks used to convey power and control signal to 12 LNT and LFGH heaters
- + Plug-and-play connections for easy installation
- + 96VA or 50VA Class 2 transformer (120/277VAC)
- + Separate overload indicator LEDs for each output jack
- + Six thermostat options: Room Sensor, Dial, LCD, LCD with Motion Sensor, LCD with CO<sub>2</sub> and Humidity Monitoring, and Wireless Dial
- + Mounts in the underfloor plenum
- + ETL certified with transformer, circuit board, terminal blocks, and all necessary hardware for trouble-free installation and startup

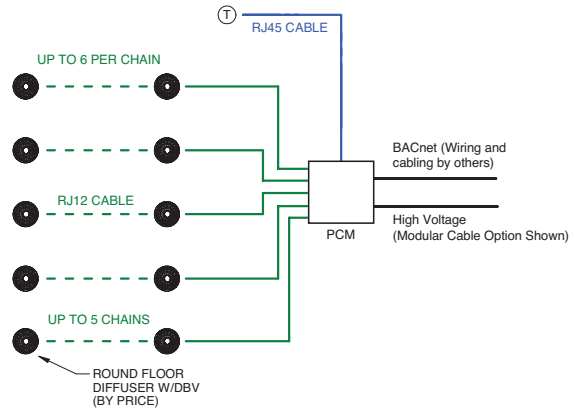


Example cooling-only zone with LPTs

# PRICE ZONE CONTROLLERS

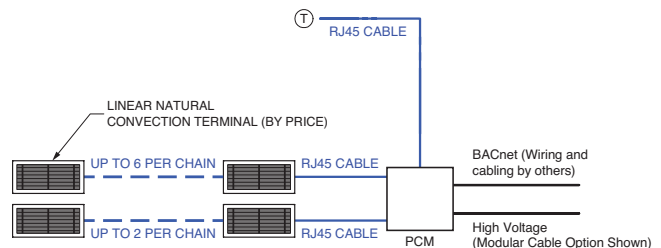
## Interior Zone

In an interior zone, the PCM can control up to 30 VAV dampers (MFD DBV, LPT, MFB), with both power and control signal delivered via a single plug-and-play RJ12 cable. Products can be daisy chained with up to six on one chain to a total of 30. Examples of this type of cooling-only zone include interior conference rooms, small offices with individual thermostats, or any large area using VAV diffusers.



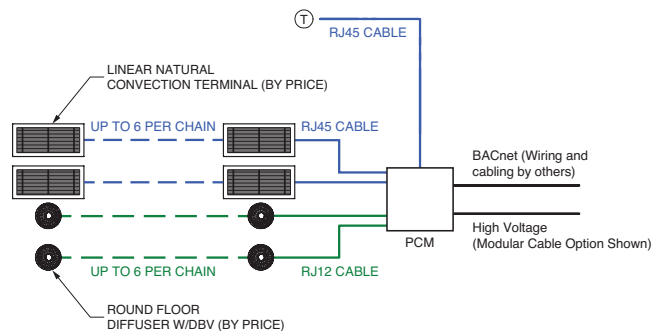
## Perimeter Zone

In perimeter heating applications the PCM can control up to 12 heating units (LNT), with both power and control signal delivered via a single plug-and-play RJ45 cable. Products can be daisy chained up with up to six on one chain to a total of 12. If a cooling damper is incorporated into the LNT, this same cable will control the damper in cooling. This damper can also be opened in heating to allow for two-stage heating. The PCM can control hydronic or electric heaters via analog or binary outputs.



## Special Zone

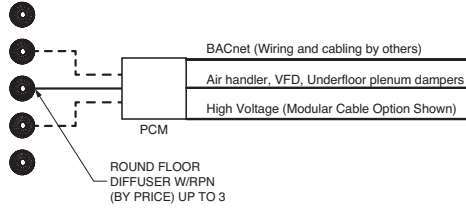
This type of space effectively combines the perimeter unit operation with the interior cooling only VAV units to ensure the space does not simultaneously cool and heat the space. The cooling for this zone is handled by using variable volume modular floor diffusers controlled by the room thermostat. Heat is provided by heating room air through natural convection in a heater trough and reintroducing it into the space. A thermostat monitors the room temperature and occupancy, while the PCM adjusts the dampers or heaters to meet the space requirements.



## Plenum Pressurization

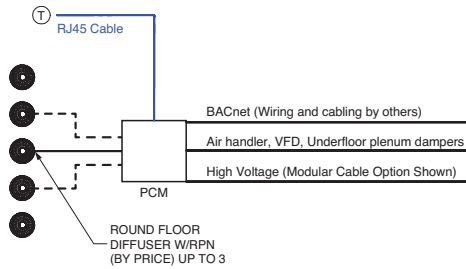
### Constant Pressure

The PCM can also be used to modulate and maintain plenum pressure. In a constant pressure application, plenum pressure is measured and the air delivered to the plenum is increased or decreased to maintain a design pressure set point. Plenum pressure is measured using the RPN. Concealed behind an 8" MFD diffuser, the RPN measures the plenum pressure differential between the plenum and the room to provide an accurate measurement of pressure. Air delivery to the plenum can then be modulated based on either a 0-10V output signal, or values communicated over BACnet.



### Variable Pressure

Similar to constant pressure applications, plenum pressure is measured using the RPN. However, instead of maintaining a plenum pressure, the pressure can be modulated to respond to changes in demand. A thermostat is used with this sequence, and plenum pressure can be modulated between a minimum and maximum pressure set point to achieve a specified room temperature set point.

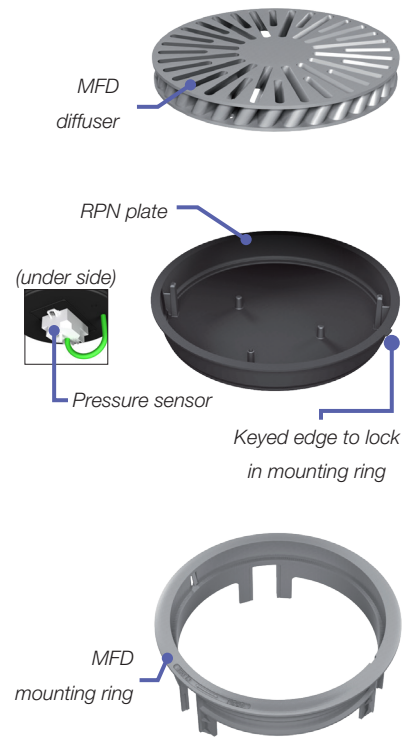


## RELATIVE PRESSURE NODE (RPN)

The RPN provides a means for measuring the relative pressure between the pressurized underfloor plenum and the room. The RPN is designed to fit underneath any 8 in. Modular Floor Diffuser, fitting seamlessly into the look of the space. This also allows for simple reconfiguration as the RPN can be swapped out with any existing round floor diffuser.

### Features

- + Monitor relative plenum pressure through a floor diffuser for consistent look.
- + Less than 1% error at very low static pressures present in UFAD applications
- + Integral 24 V<sub>AC</sub> pressure transducer with 0-10 V<sub>DC</sub> output.
- + Keyed edge to prevent spinning of diffuser under load.
- + Black finish allows the RPN to be visually hidden from the room side.

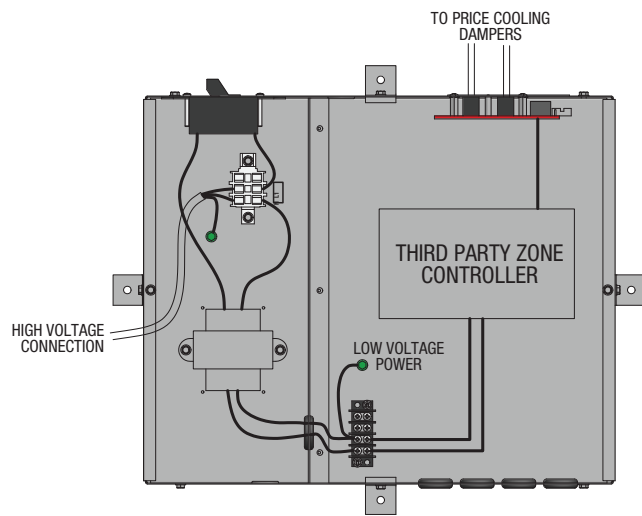


RPN Application

## THIRD PARTY ZONE CONTROLLERS

### Features

- + Third-party controller factory installed and wired
- + Provides 24 VAC power to third party zone controllers and contains space for mounting
- + Maintains manufacturer calibration and control sequencing of VAV dampers
- + Maintains modular single-cable power and control signal from control enclosure to Price VAV dampers for simple control installation
- + 0-10 VDC control signal from third-party to control Price Underfloor VAV Cooling dampers
- + Two or five port control board allowing control of up to 12 or up to 30 cooling dampers respectively
- + BACnet communication via third party controller





Product Improvement is a continuing endeavour at Price. Therefore, specifications are subject to change without notice. Consult your Price Sales Representative for current specifications or more detailed information. Not all products may be available in all geographic areas. All goods described in this document are warranted as described in the Limited Warranty shown at [priceindustries.com](http://priceindustries.com). The complete Price product catalog can be viewed online at [priceindustries.com](http://priceindustries.com).