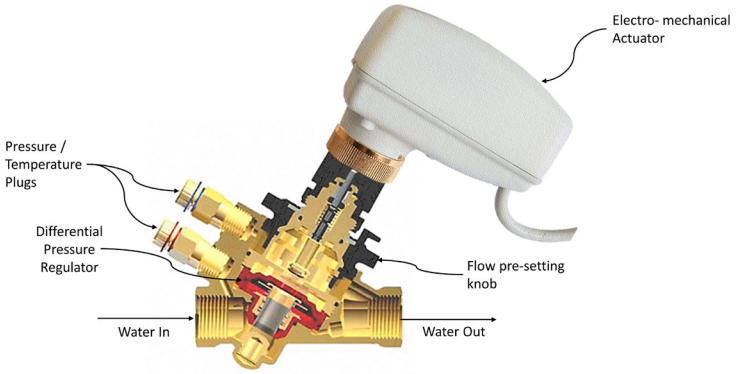

Fig. 502.16(1): PIBCV Valve Details

The PIBCV performs the following functions altogether, which enhances energy efficiency and comfort.

1. Differential Pressure Control

As the flow rates in the chilled water network fluctuate to match varying load, the available pressure at individual coil varies. To negate these fluctuating pressures, PIBCV maintains a constant pressure drop across its seat, thereby maintaining a constant flow rate in coil.

2. Flow Regulation

An adjustable opening allows the flow through a PIBCV to the designed flow rate. The opening will be at the outlet of the PIBCV and combined with the function of the pressure-regulating valve, ensures that the design flow rate is maintained irrespective of varying inlet pressures.

3. Comfort Control

As PIBCV is an integral part of building management system (BMS), it is modulated automatically based on the set-point and readings from room thermostat / return air temperature sensor (as shown in fig. 502.16(2)). This always maintains thermal comfort for building occupants.

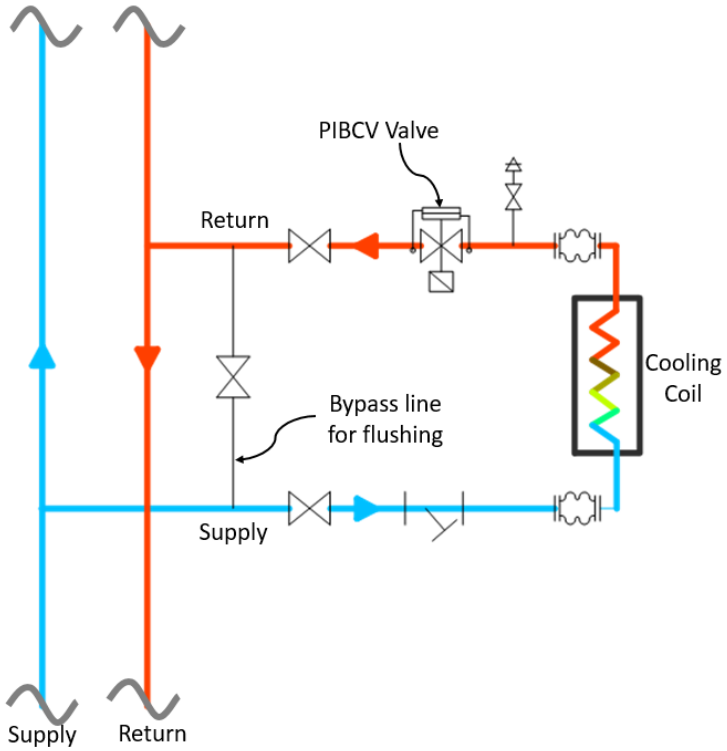

Fig. 502.16(2): PIBCV Valve Connection Details