



Frese OPTIMIZER

Pressure Independent 4-pipe Coil Control Unit

Innovative Modulating Control group for both heating and cooling applications

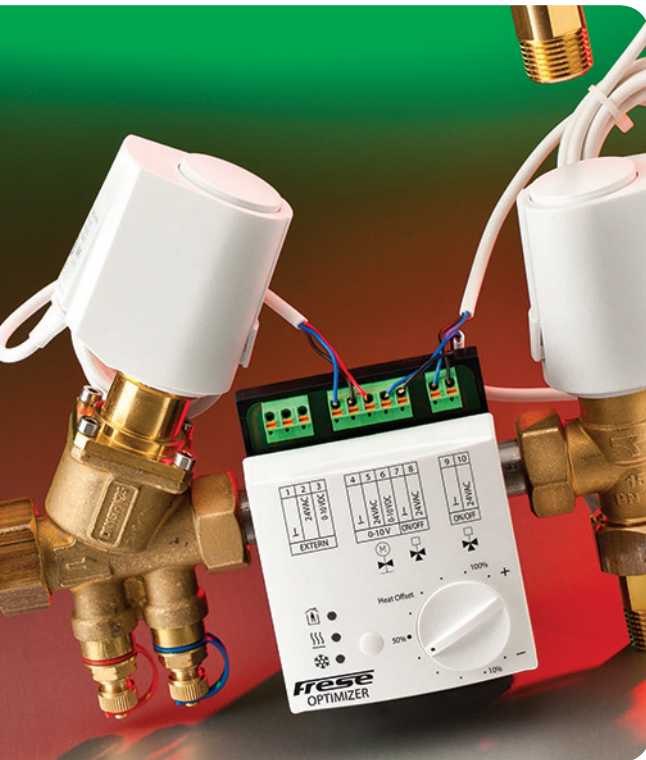
Frese OPTIMIZER control unit, in conjunction with the associated hydraulic set provides a complete pressure independent balancing and control group for efficient and effective individual room or central-controlled energy management in 4-pipe systems, such as:

- Heating and cooling ceilings
- Convectors
- Decentralised ventilation units
- Fan coil systems
- Convection heating & cooling units

Frese OPTIMIZER provides modulating control, which works independently of any variations in the differential pressure of the system.

The hydraulic set consists of an OPTIMA Compact pressure independent control valve with a 0-10V modulating actuator, and two 3 port control valves with on/off actuators.

The heart of the hydraulic set is the OPTIMA Compact pressure independent control valve that always provides full valve authority with its combination of adjustable dynamic volume controller and modulating control valve.



BENEFITS

- Energy saving functionality
- One single data point
- Control group provides flow, temperature and differential pressure control
- Central BMS or localised room temperature control
- Linear control characteristic for optimal regulation
- Simple and quick to install

Frese

Innovative solutions from Frese balance global HVAC systems accurately and efficiently. From cooling systems in the Middle East to heating systems in Scandinavia, our products transform state of the art technology into everyday solutions.

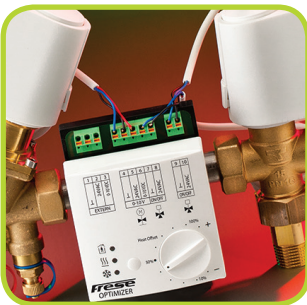




Frese OPTIMIZER Function

Frese OPTIMIZER controls both heating and cooling with only one single data point from the BMS system, through a 0 -10V external control signal.

Full modulation is provided with even different design flow of heating and cooling.



The design flow rate for the cooling system defines the maximum flow through the coil and is set using the Pressure Independent 2 way Control Valve, Frese OPTIMA Compact. Frese OPTIMIZER Controller offers setting of hot water flow, from 100% down to 10% of the maximum flow. The Heat Offset flow can be set using the dial on the Frese OPTIMIZER Controller - each dot indicates 10% of maximum flow.

The switch over from cooling to heating is automatically changed via the signal from the BMS data point. Frese OPTIMA Compact Pressure Independent Control Valve is closed during the switch over and remains closed for approx. 12 minutes until switching of the 3-way valves has been safely completed. The switch over condition is signaled by the flashing of the Off-LED lamp.

Pressure independent 4-pipe coil control unit

