A complete range for different control tasks.

Versions of the Centair system are available for every control task in air-conditioning and heating plants:
- Fixed-value controller and schedule/fixed-value controller with PI characteristic
- Fixed-value controllers and schedule/fixed-value controller with P characteristic
- Fixed-value controller and schedule/fixed-value controller with P+PI characteristic (cascade)
- Control device for air dampers

As a replacement for controllers in existing plants
Centair is especially suitable when replacements are required in existing installations that are not being modernised with a system update.

Relays
Sauter offers a complete range of pneumatic relays. These also make it possible to perform demanding control tasks in a clear and simple way. Features: housing, 94 x 72 mm, for wall or panel mounting, front plate with function schematic.

Accessories
The extensive range of accessories includes items such as manual switches, pressure adjusters, indicators, electropneumatic relays and a pressure-reducing set.

Regulating units
Modern regulating units from the Sauter range are the ideal complement to the Centair control system. Details on all valves and actuators can be found in the relevant Sauter catalogue.
Simple structure and reliable function – even in complex plants.

Centair is a pneumatic control system that has proven its merits over many years of practical use. Its structure comprises just three basic elements, and it is used in combination with regulating units and transducers that can be chosen at will.

Operation of air-conditioning plants for rooms of all types

The Centair system ensures that air-conditioning plants reliably maintain the correct room conditions in offices, exhibition centres or industrial air-treatment plants – to name just a few examples. In the case of cascade control equipment, the room temperature and the humidity of the supply air form the indirectly controlled variables. Three key characteristics typify control equipment of this sort:

- High static accuracy of the final controlled variable thanks to the small permitted P-range
- Perfect limitation of the temperature and humidity of the supply air
- Simple structure and reliable function – even in complex plants.

Schedule/fixed-value controllers in heating plants

In heating plants, the Centair system performs the function of a schedule/fixed-value controller to ensure the optimal flow temperatures for the various heating and ventilation groups.

Simple to operate and very reliable

The Centair system is very simple to operate because all the settings are made at one location. Thanks to the ample range for the PI controller’s reset time, Centair can also easily handle controlled networks with long dead times. No additional controller is required to manage the supply air and flow temperatures when they are dependent on the outdoor temperature. The valves close automatically if the compressed air supply fails.

Benefits in brief

- Low-cost solution for a varied range of control tasks
- Excellent operating reliability because controller types are structured according to control tasks
- Simple structure based on modular system with three basic elements
- Simple to install
- Up to eight control parameters can be set
- Operation in the standard pressure range (0.2...1.0 bar)

In a housing that measures 144 x 144 mm, this controller is suitable for mounting on walls, panels or front doors. Adjusting switches for up to eight control parameters can be integrated and up to three pressure gauges can be slotted in. The control action for the output signal and shift can be changed over using switches. The setpoint values can be viewed from the outside through the (sealable) plexiglass cover. Remote adjustment of setpoints is possible via a separate pressure adjuster.

Transducer for temperature, relative humidity, absolute humidity and pressure

The measuring element generates a force that changes in proportion to the measured value. A highly sensitive bleed-off force-balance system converts this force into a linear standard pressure signal which is forwarded to the controller.

<table>
<thead>
<tr>
<th>Controller Type</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>PI fixed value controller RCP 11</td>
<td>Centair is a pneumatic control system that has proven its merits over many years of practical use. Its structure comprises just three basic elements, and it is used in combination with regulating units and transducers that can be chosen at will.</td>
</tr>
<tr>
<td>Cascade controller RCP 30</td>
<td>The Centair system ensures that air-conditioning plants reliably maintain the correct room conditions in offices, exhibition centres or industrial air-treatment plants – to name just a few examples. In the case of cascade control equipment, the room temperature and the humidity of the supply air form the indirectly controlled variables. Three key characteristics typify control equipment of this sort: - High static accuracy of the final controlled variable thanks to the small permitted P-range - Perfect limitation of the temperature and humidity of the supply air - Simple structure and reliable function – even in complex plants.</td>
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