



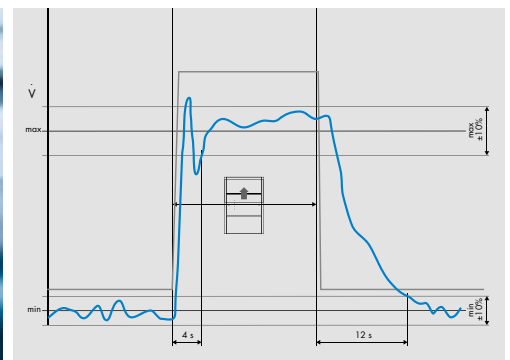
Pneumatic room pressure control

Top performance for clean rooms and top-security laboratories.

SAUTER room pressure control – reliability in every situation.

Air-conditioning of critical areas: no problem for SAUTER.

Safe, flexible and robust systems are essential for the precision air-conditioning of rooms and for contamination control in clean rooms and high-security laboratories. This is why SAUTER systems are found in many research institutes all over the world – because SAUTER's pneumatic control systems lead the way in terms of performance and stability when it comes to maintaining room pressure. SAUTER ensures dependable safety – for instance, at centres of research into human or veterinary pathogenic viruses – and is the experienced partner in clean rooms for the pharmaceutical industry, where precision room conditions, temperature, humidity and room pressure are concerned.





**Negative-pressure control for laboratories,
positive-pressure control for clean rooms.**

For reliable control of the air pressure in clean rooms and laboratories, it makes sense to use systems with supply- and return-air volume flow controllers, because of the strict requirements relating to room tightness. Therefore, it is standard practice to use a negative-pressure control system via the supply air in laboratories, and a positive-pressure control system via the return air in clean rooms.

Reliable maintenance of pressure stages – over a number of zones.

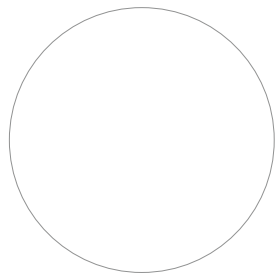
For clean rooms and laboratories with security levels S3 or S4, constructional and technical requirements are prescribed which, amongst other things, place importance on the maintenance of pressure stages across several zones. The resultant system requirements can be reliably and flexibly met using SAUTER's pneumatic control systems.



*Pneumatic damper drive
AK41P1F003*



*Volume flow controller
1...160Pa; dV adjuster
RLP100F003*



More possibilities, lower costs:

SAUTER technology in the smallest space.

With SAUTER's pneumatic control systems, you can achieve maximum pressure consistency in gas-proof rooms with small pressure stages compared with adjacent areas. With no danger of cross-contamination! Therefore, it is possible to design complete installations that are smaller, which results in lower levels of investment and lower operating costs. Of course, the system complies with ATEX regulations for use in potentially explosive areas.

SAUTER room pressure control: precision with a system.

Pneumatic solutions make it possible to maintain the room pressures within a tolerance range of $\pm 1.5\text{Pa}$. The room pressure is kept constant using a room pressure controller, which is connected in cascade onto the corresponding volume flow controller with a volume flow effect of $\pm 10\%$. Thanks to the restricted influence of the room pressure controller, no additional measures, such as door contacts, are required to freeze the room pressure control. The settling time of the room pressure after opening and closing a door is 7 to 10 seconds.

Integration into the building management system is effected using electro-pneumatic converters, which exchange the required signals from and to the automation level.



Room pressure controller F901-20...20Pa
Room pressure controller F915-50...50Pa
Room pressure controller F924-185...35-35...185Pa



E/P - P/E converter
XEP 301 F001

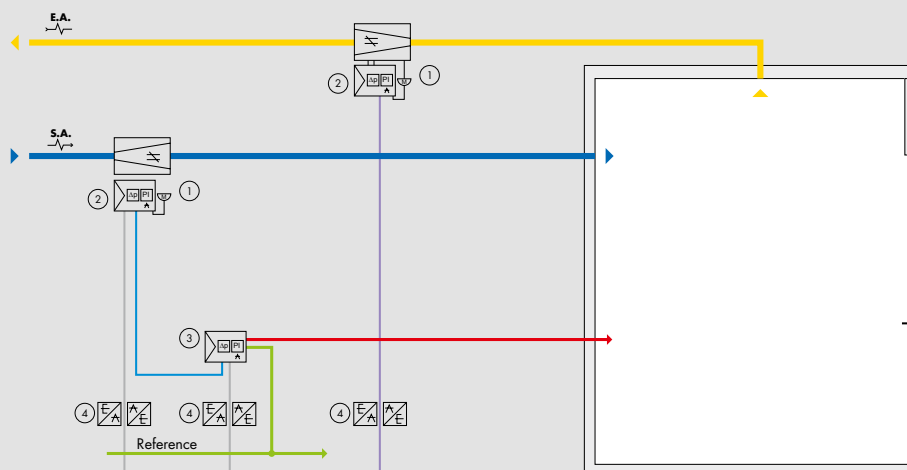
SAUTER system expertise – for integrating clean rooms into the building management system.

SAUTER integrates without the need for interfaces.

Clean rooms, laboratory rooms and fume cupboards cannot and should not be regarded in isolation. Their control is invariably part of an overall building management system, irrespective of whether they are controlled electronically or pneumatically. As a specialist, SAUTER can guarantee the interface-free integration of the sub-system into the overall system.

The perfect symbiosis of consultancy, product and service.

In order to guarantee the highest possible level of security, comfort and visible energy efficiency in buildings with specific requirements, SAUTER advises its customers right from the initial planning phase. This helps to set up systems and put them into operation more quickly and more economically. It goes without saying that SAUTER can comply with GMP and FDA standards. The same applies to the dependable quality of each individual component. They are perfectly in line with system requirements, come from our own production facilities and are more than worthy of bearing the seal of quality that is 'Made in Switzerland'.



EY-modulo
automation station

The application diagram shows a typical control system for supply and return air with the following components:

- 1 Pneumatic damper drive
- 2 Volume flow controller
- 3 Room pressure controller
- 4 E/P/E converter

Systems

Components

Services

Facility Management

70010880003 V5

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Creating Sustainable Environments.