



PROCLEANROOM

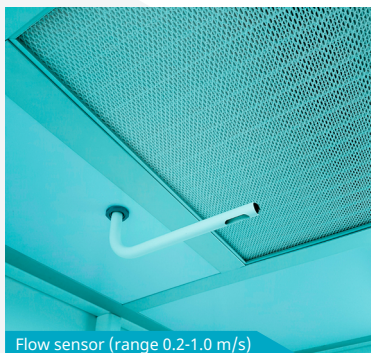
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APPLICATION NOTE:

CONSTANT FLOW IN CLEANROOMS & LAMINAR FLOW UNITS



Modular cleanroom



Flow sensor (range 0.2-1.0 m/s)



Laminar downflow unit



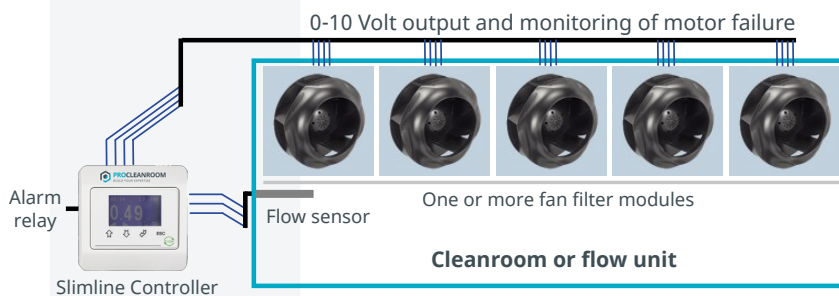
Slimline controller with sensor options

SLIMLINE CLEANROOM CONTROLLER AND FLOW SENSOR FOR MAINTAINANCE OF CONSTANT FLOW IN CLEANROOM AREAS

The cleanrooms and flow cabinets of ProCleanroom are equipped with the latest generation fan filter modules with DC electric fan motors and Slimline controller. ProCleanroom not only meets existing regulations, but is far ahead of the stringent ErP guidelines.

The controller has a simple manual operation and integrated week scheduler with optional sensors for temperature, pressure, humidity, CO₂ and air flow. This makes direct readout and control of air speed possible.

Usage of the cleanroom or flow units results in degradation of the HEPA or ULPA absolute filter. This means the resistance over the absolute filter increases because of the contamination build up. Without closed loop control this results in decreasing air speed, possibly jeopardising the cleanliness level inside the cleanroom or flow unit.



This solution is a reliable and simple way of maintaining a constant air flow velocity in the cleanroom or flow unit. The Slimline controller is located inside or outside the clean environment and a flow sensor is placed below a ceiling mounted reference fan filter module. The required air flow velocity setpoint is entered into the controller. The controller will ask the reference fan filter module to adjust according to this setpoint to maintain a constant air velocity. The other fan filter modules (if any) will be serial connected to the reference fan filter module. This ensures that all modules operate at the same speed and that a constant air velocity is maintained in the entire cleanroom or flow unit.

The controller is equipped with an alarm relay. In case of motor failure this will be shown in the controller display and transmitted via the controller alarm relay.

Benefits for the user:

- Constant monitoring & feedback of air speed (i.e. air volume and air change rate)
- Closed loop control of air speed – maintaining constant air flow in time
- Better safeguarding cleanliness quality inside environment
- Clear notification of service demands
- Multiple sensor options

Please visit our website for further information or contact us by mail or telephone to discuss your application

PROFESSIONALS IN MODULAR CLEANROOM TECHNOLOGY



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