Always in full flow

_ How fast is the air flowing through the tube? Is it flowing at the correct rate? Is there enough pressure? All parameters that until now have only been tested with rudimentary systems. It was not possible to monitor and immediately regulate the motor while in use. A new, intelligent and very precise solution to this problem is, however, now being marketed by Micronel.

Precision monitoring

_ Everyone, for example, operating with breathing apparatus and protective suits in highly dangerous environments is dependent on precise monitoring of their essential equipment. However, any fall in breathing apparatus airflow caused by blocked filters could not be recognised by traditional devices. There were no early warnings, and regulating the blower motor was not an option. It was dangerous. With most devices, the only opportunity for checking airflow volume was before or after use by means of an airflow meter (a small transparent PVC tube with a floating ball). Even then this had to be done without the associated components, such as hose and mask. Checks were always very laborious and imprecise. To carry them out, the associated components (hose and mask) had to be unscrewed from the blower unit and the small PVC tube pushed in. And to check how well these devices were functioning actually during use was totally impossible. As a result, the motors on such personal protection equipment were also not regulated.

_ Micronel took care of this problem a year ago and came up with a number of solutions. Now, for the first time, with the newly developed integrated impeller anemometer it is possible to perform precision monitoring of the effective airflow volume even while the device is in use and then, if necessary, to correct it. Any drop in airflow caused by a blocked filter or reduction in battery capacity is immediately recognised by the anemometer and automatically corrected again by the blower. Alternatively, an alarm is set off.

_ With the same familiar function, this impeller anemometer is also available with a tiny LCD display as an RFI (remote flow indication) test kit for system testing. The signals from the vane anemometer are relayed by non-contact means to the LCD display, where the relevant air volume figures can be conveniently read off. The anemometer is fitted on both sides with a standard RD40 thread and can thus be screwed onto the personal protection equipment at any spot between the individual interfaces (e.g. mask/filter, hose/blower). This is particularly ground-breaking, as it means that the system's entire air circulation can be tested during use and in a variety of different places.

_ This highly precise module provides extremely accurate readings, which can be thoroughly relied upon. To ensure that it works as smoothly, quietly and efficiently as possible the impeller rotates on a high precision, spring-loaded sapphire bearing as used in the watch-making industry.

Technical information:

Impeller anemometer
Dimensions: Diameter 45 x 40 mm
Bearing: Spring-loaded sapphire bearing
Adaptability: RD40 thread (male/female)

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