

## **Pressure switches and differential-pressure switches for gas-explosive zones:**

### **Proven technology now with ATEX licence**

*Not only do explosions often cause severe damage to property – not infrequently, they lead to personal injuries and invalidity. Obviously, as far as possible, such dangerous situations must be prevented in the first place. In some areas of industry, such as the chemicals sector, however, ignitable gas or air mixtures are frequently inevitable. Here, it is absolutely essential to avoid sources of ignition. Technical devices are one such potential source. If it is nevertheless impossible to dispense with them, they must be certified for so-called explosive zones. The ATEX product guideline 94/9/EG contains specifications for their construction (ignition-protection type) and quality management.*

Pressures have to be monitored, even in explosive zones.

The pressure-monitoring technology experts at Beck GmbH, Steinenbronn, have therefore submitted their Type 901 pressure switch and Type 930.8x differential-pressure switch for a type inspection. At the same time, the QM system (according to EN 13980) was also inspected with



regard to the production of these units, and certified accordingly. The Series 901 pressure switches with identifier II 1/2G Ex ia IIB T4 are now suitable for use in Explosive Zones 0, 1 and 2 with gas atmospheres, or with identifier II 2G Ex ia IIC T4 for Zones 1 and 2. The Series 930.8x differential-pressure switches can also be used in gas atmospheres, and are authorised to bear the ATEX identifier II 2G Ex ia IIB T4 in future. All units are executed in “intrinsically safe” ignition-protection type, and have been categorised in Temperature Class T4 and Explosion Group IIB or IIC.

Even after certification, the Type 901 pressure switches display convincing, individual adaptability (Figure 1). For instance, the units are available with pressure connections in different materials, shapes and sizes. There is also a wide selection of materials for the membranes. Switching-pressure ranges can be set just as individually as switching points. The pressure switches can thus be adapted to almost any customer-specific application. The areas of application range from sewage technology, in which resistance to aggressive media is a challenge, to food and medical technology, in which strict hygiene guidelines must be observed.

The same applies to the Series 930.8x differential-pressure switches (Figure 2), which have been proven in building automation, with their switching-pressure ranges adjustable between a minimum of 20...200 Pa and maximum of 1000...4000 Pa, and switching differentials of between 10 and 250 Pa. They, too, will in future open up new areas of use with their ATEX certification.



Examples are the monitoring of industrial cooling-air circuits, flow monitoring in ventilation ducts, overheating protection for air heaters, or the control of air and fire-protection flaps.

Figure 1 Type 901 pressure switches, with their different pressure connections and membrane materials, can be adapted flexibly to the most varied applications. Now they are also suitable for use in explosive zones (II 1/2 G and II 2 G)

Figure 2 The Series 930.8x differential-pressure switches, proven in building automation, will in future be permitted to bear the ATEX identifier II 2G Ex ia IIB T4

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