

Explosion-proof version of the key transfer system



Electronics is not always the keyword in machine safety. Many mechanical engineers use a mere mechanical key transfer system, which offers enhanced flexibility and simplified operation due to the absence of wiring. If the operator wants to open a safety guard, he withdraws the corresponding key from the central unit. This can only be done, when the machine is idle: in this situation, a safe standstill signal releases the key. To get access to the hazardous area, the operator inserts the key into the cylinder lock, which is fitted onto the safety guard. As long as the key is inserted in the cylinder lock on the safety guard and not in the key-operated selector switch, the machine cannot be started. The key furthermore is "trapped" in, i.e. cannot be removed from, the cylinder lock as long as the safety guard is open.

This system is simple, easy-to-fit and flexible. It moreover can be smoothly fitted onto existing machinery and now even on machines and plants in potentially explosive atmospheres, considering that the Schmersal Group offers an explosion-proof version of its SHGV-system.

The central units of the EX-SVM series for six or ten keys as well as the interlocking devices of the EX-SHGV type for the safety guards are suitable for use in Ex Zones 1 and 2 (Gas-Ex) or 21 and 22 (Dust-Ex). Furthermore, individual key-operated selector switches (EX-SHGV/ ESS), which enable interrupting or switching off the automatic mode of the machine, are available for fitting onto the machine. These components are certified for Ex Zones 2 (Gas-Ex) and 22 (Dust-Ex).

With these components, the machine builder can set up a complete safety system, which is robust and can be smoothly operated. As the safety-relevant information is transferred through the

key, no electric signal wires are required – an essential advantage, especially in potentially explosive areas.

Besides the Ex-SHGV system, Elan, the Centre of Competence of the Schmersal Group for Explosion Protection, offers a comprehensive programme of (safety) switchgear for gas and dust explosion protection. The portfolio includes explosion-proof ATEX/IECEx certified versions of, amongst others, safety switches, solenoid interlocks, position switches, safety sensors as well as control devices and indicator lights. Whereas these series concern electric switchgear, the Ex-SHGV system is a purely mechanical system, which is practical, user-friendly and above all cost-effective. A user of the SHGV system has established a cost comparison and calculated that with this system, he saves up to 30% compared to the conventional safety switches.



Safety in system. Protection for man and machine.

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