

Verification of intrinsic safety

Preparation and documentation by Ex specialist R. STAHL

Benefit from R. STAHL's many years of experience and expertise in explosion protection. In addition to a wide range of products and complex solutions, we also offer you comprehensive services - for example, we take care of the verification and documentation of intrinsic safety for you.

Intrinsic safety Ex I.S. is a type of protection that has been used and tested for decades. Its functional principle is based on reliably limiting the voltages, currents and power available in the circuit to values at which neither ignitable sparks nor impermissibly high surface temperatures occur.

For compliance with these criteria, it is inevitable to consider not only the individual components of the intrinsically safe circuit, but also the complete **inter-connection and interaction of all the components involved**, including the connecting lines.

However, the user assumes a **high degree of responsibility**, as he usually selects the most suitable equipment for his application from a wide range available on the market and connects it himself.

For intrinsically safe circuits, **verification and documentation of intrinsic safety** is required in accordance with the installation regulations **DIN EN 60079-14 [1]**. It is checked whether **ignitable sparks and hot surfaces are safely avoided**.

Since this **mathematical verification** is not easy to make, we will be happy to support you.

