

## VSB10.3

### Voltage Safety Box



In meter testing stations, dangerous voltages above 50V AC might be available. The user must be protected from them. Following measures secure and enable a voltage separation:

- Stationary separating safety equipment
- Movable separating safety equipment
- Non-separating safety equipment

In many meter test stations, separation of energized parts and user cannot be realized by means of stationary separating safety equipment. For this reason, movable or non-separating safety equipment is used. To allow the use of safety switches or light curtains in meter testing stations, a safety related signal evaluation is required. Here a safety relay analyzes the starting conditions and in case of need interrupts the dangerous voltage.

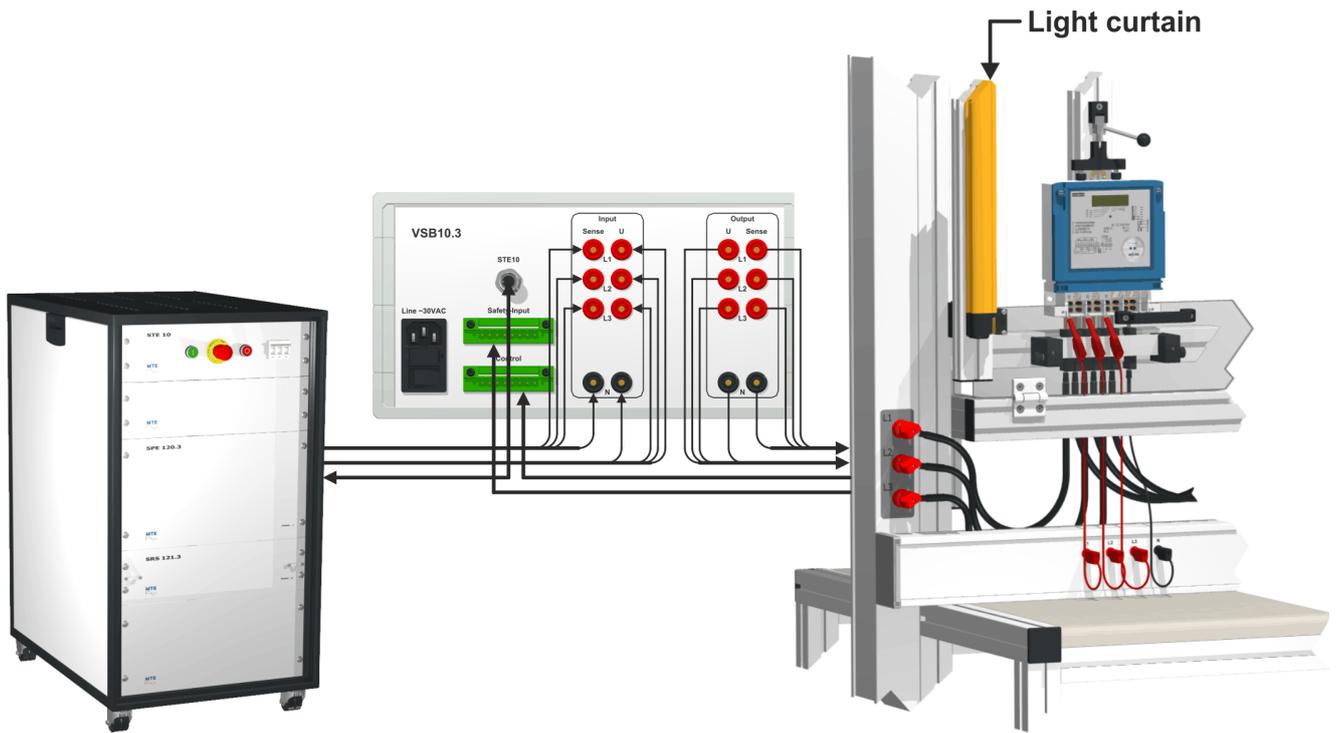
This functionality is realized by a safety shutdown device (VSB10.3) connected between power source and meter test rack. The connected safety equipment (safety switch/ light curtain) acknowledges the safety.

The measurement wires are separated and lead back to the power source in order to avoid over modulation in the power source.

In addition, the power source receives over a safe contact information about safety shutdown. After that the modulation switches off. As soon as the meter test equipment returns to safe state the process can be started again automatically or manually (this can be freely adjusted).

## Example. VSB10.3 in combination with light curtain

### Block diagram for SPE System



### Block diagram for PSP and ZVE System

