Voltage Indicator type SPA

Design

For detecting the power level, the principle of the capacitive voltage divider is used. With assistance of the electrical field around the live core, a capacitor is charged after the alternating voltage has been rectified. This capacitor discharges periodically over a neon lamp. The generated light flashes are transmitted by a light mains to the reading instrument. There the flashes are intensified and evaluated.
If the sequence of the light flashes is between 1 and 5 sec. (selectable), the voltage indicator will indicate "voltage provided".
In case the voltage breaks down or approaches 0 V AC, the interval of the flashes becomes longer. If the intervals are longer than 5 sec., the indication will be "no voltage provided".
The voltage indicator needs an auxiliary power supply to operate.
The indication at the place of installation and the remote indication are provided for each core.
A blinking LED indicates " voltage provided".
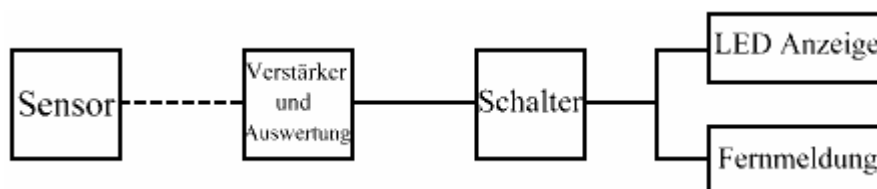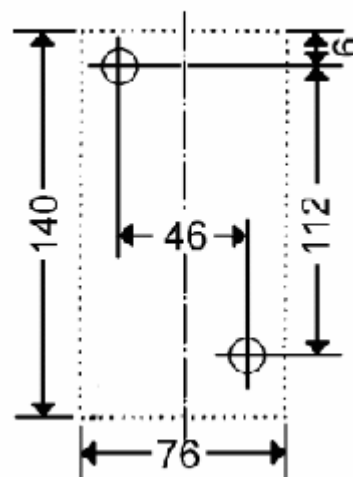
Assembling

The sensors have to be mounted with cable straps on the high voltage cables. The reading instrument (surface-mounted instrument) must be mounted with two screws near the place of inspection, but outside the high voltage area.
The sensors and the reading instrument are connected via light mains. The standard length of this cable is 1400 mm (other lenghths are possible on request). The power supply and the remote indication will be wired according to the following diagramme.
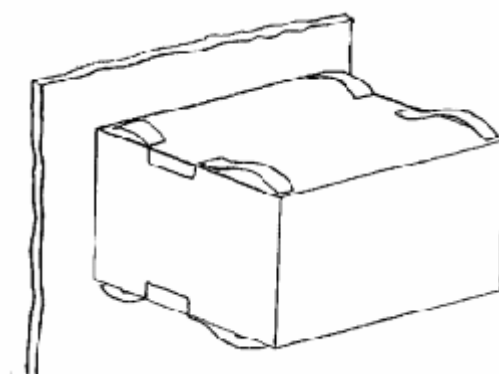
Technical Data

dimensions: sensor: (dia. * H) 40 * 55 mm
reading instrument: (W*H*D) 76*140*42 mm
current demand: sensor: not necessary
reading instrument: 2 mA
power supply: refer to item B - C - D (see Appendix A)
load: relay contact: max. 230 V AC
max. contact load: 1 A
switching load: max. 50W to 150 W