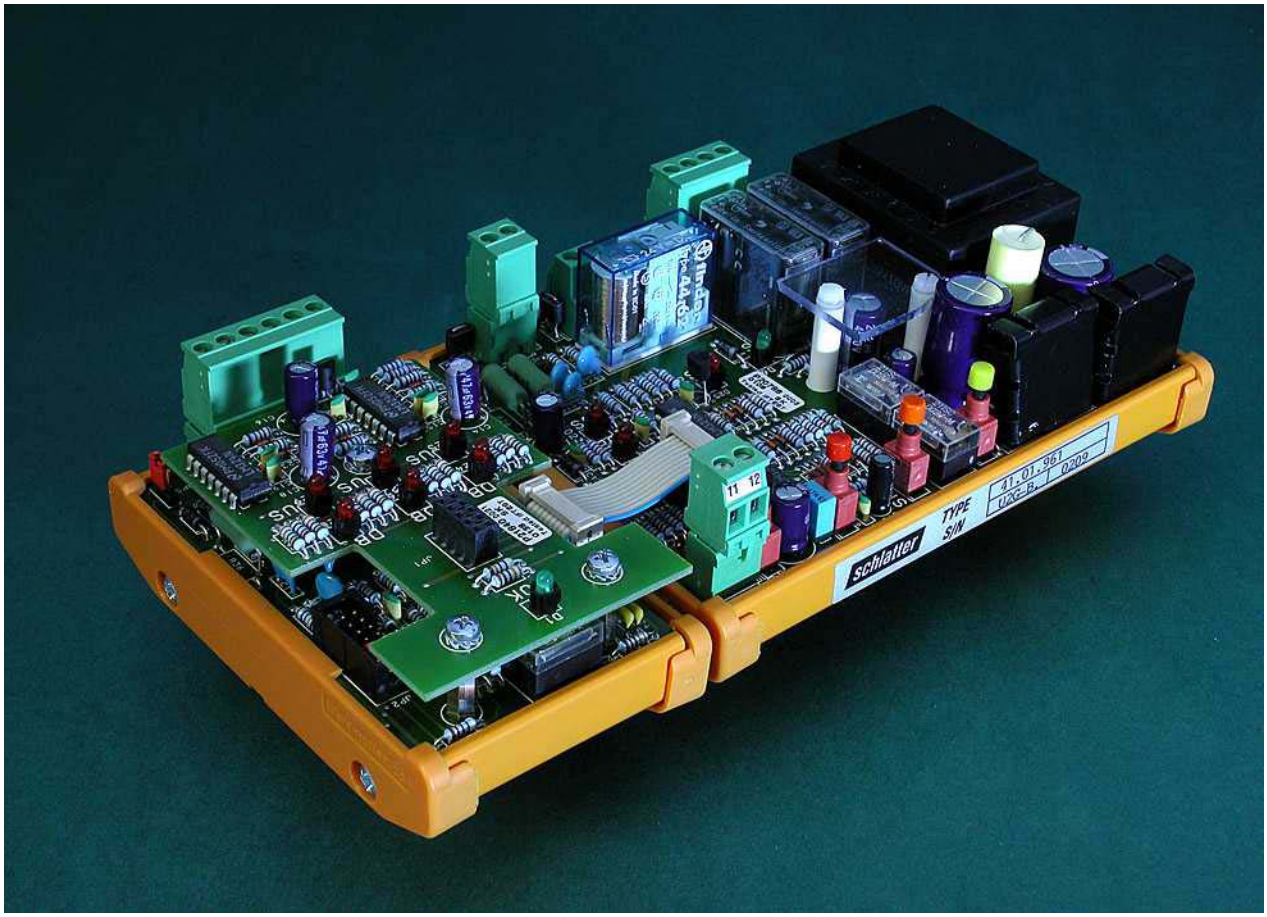
U2-Guard



Overvoltage supervision for weld transformer

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U2-Guard - the Overvoltage supervision for weld transformer

Overvoltage (surge voltage) supervision for each weld transformer.

With various mesh, posiweld and radiator welding machines, the secondary circuit of the welding transformers cannot be earthed due to physical reasons. The U2-Guard enables voltage supervision of these non-grounded secondary circuits.

Extension possibilities of up to 25 measuring channels.

The supervisory device is made up of a basic module with a measuring channel and up to 8 additional modules each equipped with 3 measuring channels. The individual electronic modules are mounted onto the symmetrical carrier rails (EN50022) in the control cabinet.

Intrinsically safe overvoltage (surge voltage) supervision.

The supervisory device carries out a self-test when the control cabinet is switched on. If an error is determined, it will be impossible to switch on the welding machine circuit breaker. The circuit breaker can only be switched on after the error has been corrected.

Function mode of the overvoltage (surge voltage) supervision.

When insulation fails between the primary and secondary circuit, or when dangerous voltage potentials occur, the circuit breaker will be switched off via a two potential-free relay contacts.
A third potential-free relay contact, signals the control system (PLC), that the circuit breaker has been released. The error which has occurred is signalled via light emitting diodes (LED's) on the U2-Guard, thus enabling fast location of errors.

Double safety via dual-channeling.

The measuring and earth circuits are installed twice. If one wire is broken, the circuit current can no longer flow and the circuit breaker will be automatically switched-off.
The actual error will again be signalled via light emitting diodes on the U2-Guard.

Periodical testing of the overvoltage (surge voltage) supervision.

The errors "Overvoltage", wire break in measuring circuit and "wire break in earth circuit" can be periodically tested using test buttons.
The simulated error cause is visually signalled via the light emitting diodes. These tests can also be carried out when the circuit breaker is switched off. This method especially protects the circuit breaker.

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