

Type MTR-1

- All 3-phase AC measurements, true RMS
- 3 programmable analog outputs (current can be indicated with signs as function of power direction)
- 1 programmable pulse output
- Display showing all measurements
- Optional serial output for all values
- 1-, 2- or 3-phase measurements

Application

The MTR-1 multi transducer is a microprocessor-based measuring unit providing measurement of all electrical values on a single phase or 3-phase network, showing the measurements on the built-in display and transmitting these as:

- 3 analog outputs and
- 1 pulse output and
- a serial output (option).

The MTR-1 can replace several transducers in all electrical measuring applications, and can be applied both as a normal transducer, where the analog output is connected to a local control system, and as a remote value reading unit, where all measured values are transmitted to the remote control system via the serial interface.

The MTR-1 can measure true RMS values on all network topologies with/without neutral and with both balanced and unbalanced load.

MTR-1 contains all necessary measuring circuits and presents all values on an LC display. Messages are presented in clear text, all measuring values in engineering units.

The MTR-1 is a flexible and menu-programmed unit, enabling the user easily to adapt the unit to the application in question. Programming procedures are password protected.

Standard functions

The unit is designed for measurement on a 3-phase or 1-phase network.

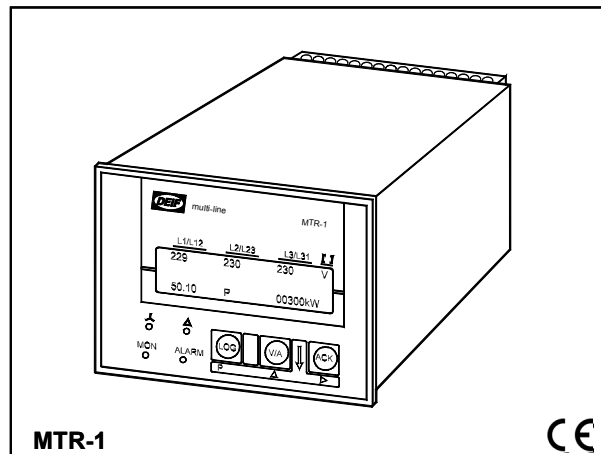
Measured and calculated values

- phase to neutral voltage (3-phase U_{\max} , U_{\min} and average)
- phase to phase voltage (3-phase U_{\max} , U_{\min} and average)
- current (3-phase I and average) and direct. current.
- active power
- reactive power
- apparent power

multi transducers

multi-line

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- $\cos-\phi$
- frequency

Each of the 3 analog outputs can be programmed to represent any of the above measurements, and the output signal can be programmed to the required scaling and type.

- energy production (kWh) counter (not for billing purposes)

The open collector pulse output can be programmed to transmit any fixed number of pulses per produced kWh.

Options

Option A1: Remote value reading

- RS 232 remote value reading of all values measured by MTR-1.
- Siemens 3964, RK512 with standard telegram.

Option A2: Remote value reading

- RS 485 remote value reading of all values measured by MTR-1.
- Modbus standard telegram.

Other communication standards available on request.

Option B0: 12V DC power supply

Option B1: 24V DC power supply

Option B2: 48V DC power supply

Option B3: 110V DC power supply

Option B4: 220V DC power supply

Principle diagram