

Multifunction measuring device TNM96-ETN-II



- Energy meter
- 1 channel / 3 wires
- Graphical display
- WebServer
- Panel mounting
- Sampling rate 1600 /s
- Supported current transformers 1 A, 5 A, 0.333 V
- Determination of harmonics

<https://www.wachendorff-prozesstechnik.de/en/TNM96-ETN-II>

Description

The TNM96-II is a compact, very accurate 0.2% (0.1 optional), three-phase multifunction meter. It includes energy consumption recording and supports BACnet and Modbus protocols. The meter can be operated and configured via a web browser using the Ethernet TCP/IP interface. An indispensable aid for displaying and evaluating the min/max values, active, apparent and reactive power, as well as harmonics up to 64, and all important measured variables via additional software. In contrast to the TNM96-I, the TNM96-II has the option of residual current and neutral conductor measurement.

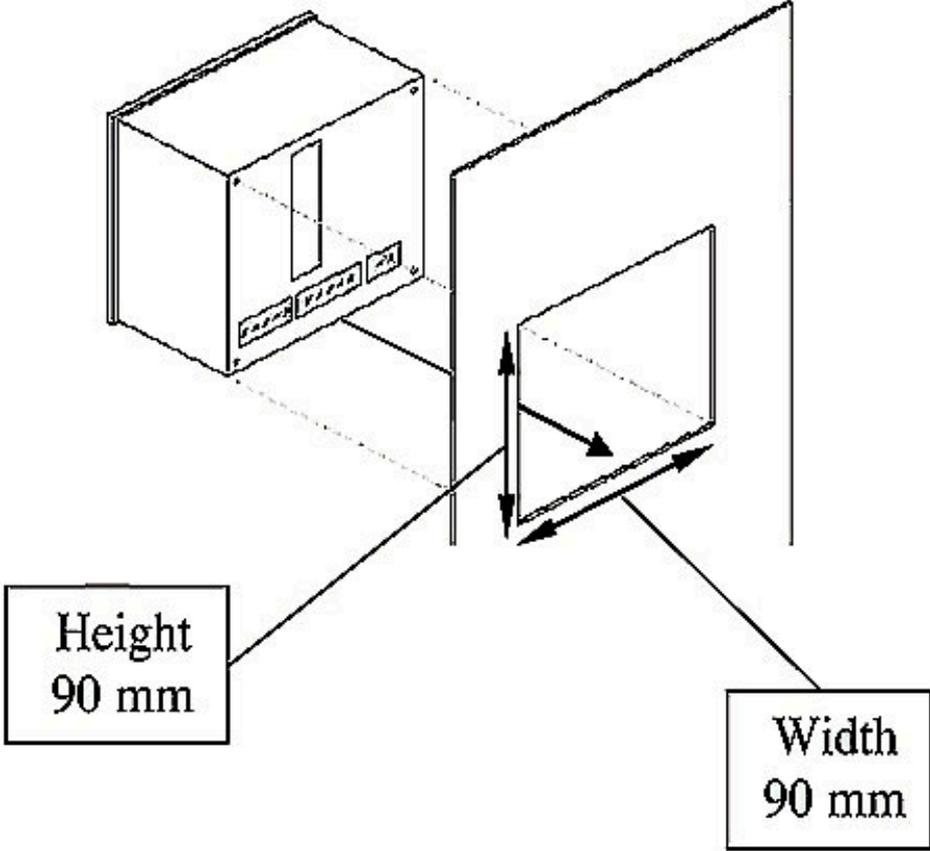
Product details

Protocols / Interfaces	BACnet MS/TP and TCP/IP, Modbus RTU and TCP/IP
Supply voltage	90 to 250 VAC, 50 / 60 Hz, 110 to 280 VDC
Dimensions (W x H x D)	96 mm x 96 mm x 80 mm
Weight	650 g
Power consumption	9 VA
Accuracy	Active power 0.2 %, reactive power 0.2 %
Display	323 x 240 color display
IP protection class	IP64 (front), IP20 (terminal)
Operating temperature range	-20 °C to 70 °C
Storage temperature range	-20 °C to 70 °C
Application range relative humidity	0 % to 95 % RH
Sampling rate	1600
Number of channels / conductors	1 / 3, 1 / 4
Harmonics	64
Measurement type	Transducer measurement
Supported converters	0.333 V, 1 A, 5 A
Current measurement	0.001 A to 6 A
Measurement current - overload (RMS constant)	50 A
Measurement current - short-term (for 1 minute)	100 A
Measurement current - load	< 0.05 VA
Neutral current measurement	0.001 to 6 A
Voltage measurement L-L	0.1 to 950 V

Voltage measurement L-N	0 to 550 V
Measurement voltage L-N - maximum (RMS constant)	1000 V
Measurement voltage L-N - load	< 0,06 V
Frequency measurement	45.001 to 65.001 Hz
Power factor measurement (cap./ind.)	-1 + 1
Current display range	0.0010 A to 99999 kA
Display range neutral current	0.0010 A to 99999 kA
Display range voltage L-L	0.0010 V to 99999 kV
Display range voltage L-N	0.0010 V to 99999 kV
Display range Frequency	45.001 to 65.001 Hz
Display range Power factor (cap./ind.)	-1 + 1
Display range active power total/phase	0.0000 W to 99999 MW
Display range reactive power total/phase	0.0000 VAR to 99999 MVAR
Display range Apparent power total/phase	0.0000 VA up to 99999 MVA
Display range active energy total/phase	0.0010000 WH to 99999999 MWH
Display range Reactive energy total/phase	0.0010000 VARH to 99999999 MVARH
Display area Apparent work total/phase	0.0010000 VAH to 99999999 MVAH
Display range Total harmonic distortion V/I	0.000 to 100.0 %
Display range Partial harmonic distortion V/I	0.000 to 100.0 %
Functions	Alarm memory, alarms, data logging, residual current measurement, easy-to-use menus, built-in tariff counter, graphical display of harmonics, multilingual capability, minimum/maximum determination, neutral conductor measurement, fast trend displays, waveform display

Normative standards	EN 55022, class A, supplements A1; A2 EN 55024, supplements A1; A2 EN 61000-3-2, class A, EN 61000-3-3, supplements A1 EN 61000-4-2 EN 61000-4-3, EN 61000-4-4 EN 61000-4-5 EN 61000-4-6, EN 61000-4-11 IEC 62052-11 IEC 62053-22, IEC 62053-23
Scope of delivery	Multifunction measuring device
Manufacturer	Celsa Messgeräte GmbH

Drawings
Panel cut-out





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