

MULTIDISCIPLINARY
SCIENTIFIC-PRODUCTION
ENTERPRISE



**ELEKTRO
PRIBOR®**

Design
and manufacture
measuring instruments
for energy



Panel-Mounted Digital Devices (Measuring Devices)

ЦП8507 / CP8507



Multifunctional Digital Measuring Transducers

Multifunctional Digital Measuring Transducers for measuring parameters of three-wire and four-wire direct current three-phase networks of 50Hz frequency (effective values of phase currents and linear currents, voltages; active, reactive and total power; frequency, etc.. – up to 29 parameters).

RS-485-1 – with galvanic isolation for transmission to the ACS supremal controller;

RS-485-2 – for reflection on IC8511 indicators (see line.3.1).

Basic error for frequency measuring $\pm 0.05\%$, for other parameters $\pm 0.5\%$ (to simplify calibration).

For models CP8507/1-4,7-10 the built-in general-purpose pulse power unit with input direct voltage from 105 to 300 V or alternating voltage from 80 to 260 V is available.

CP8507/1,2 – panel-mounted for 4-wire networks, CP8507/7,8 for 3-wire networks, with 3 digital indicators on the board displaying 3 parameters from 29 and 3 output analog signals 0-5; ± 5 ; 4-12-20; 4-20mA with regards to the parameters being displayed.

CP8507/3-6,9-12 – have no analog indicators and analog output signals, to be mounted on panels, boards, DIN-rails.

CP8507/3-6 – for 4-wire three-phase networks.

CP8507/9-12 – for 3-wire three-phase networks .

CP8507/5,6,11,12 – 220V 50Hz mains supply.

Medium low-temperature version 3.1 (-40 to $+50^{\circ}\text{C}$)

* on order can be produced without analog output signals

ИЦ8511 / IC8511



Digital Panel-Mounted Indicator

Intended for operation integrated with Digital Measuring Transducer CP8507 or other device with consistent data communications protocol under RS-485 interface; 3-lines indicators panel (each line contains 4 LED 7-segment indicators and “-” character, characters height 20 mm, colour of each line can be red, green or yellow);

built-in pulse power unit with input direct voltage from 105 to 300 V and alternating voltage from 80 to 260 V.

Panel-Mounted Digital Devices (Measuring Devices)

ЦП8501 / CP8501



Panel-Mounted Direct Current Milliammeter (CP8501/1, CP8501/2 models with arbitrary scale).

Panel-Mounted Alternating Current Ammeter (CP8501/7 – 14 models).

Panel-Mounted Alternating Current Voltage Voltmeter (CP8501/15 – 26 models).

For all models: basic error $\pm 0,5\%$, power supply 100 V, 220 V, frequency 50 Hz.

On board: direct current analog output (0-5) mA or (4-20) mA, built-in general-purpose power unit with output direct voltage and input direct voltage from 105 to 300 V, and alternating voltage from 85 to 260 V, RS-485 interface. Medium low-temperature version 3.1 (-40 - +50°C).

ЦП8512 / CP8512



Panel-Mounted frequency and (or) temperature meter.

Basic error for frequency measurement $\pm 0.05\%$, for temperature measurement $\pm 1\%$; on order: direct current analog output (0-5) mA, (-5-0 - +5) mA, (4-20) mA.

Depending on a model: 1-3 built-in relays (voltage commutation up to 250V and current commutation up to 4A) for heating and cooling control and possibility of entering from 2 to 6 temperature settings. It is also possible to enter into memory of the device up to 9 temperature control diagrams.

On order: built-in general-purpose pulse power unit with input direct voltage from 105 to 300 V and alternating voltage from 85 to 260 V, RS-485 interface.

ЦП8506 / CP8506



Panel-Mounted Wattmeter for three-phase networks (models CP8506/1 - 8, CP8506/17 - 24).

Panel-Mounted Varmeter for three-phase networks (models CP8506/9 - 16, CP8506/25 - 32).

For all models: basic error $\pm 0,5\%$, analog output range (0-5) mA, (0 \pm 5) mA, (4-12-20) mA, (4-20) mA, 100V/220V 50Hz mains supply or supply by measured network.

On order: built-in general-functional pulse power unit with input direct voltage from 105 to 300 V and alternating voltage from 80 to 260 V, RS-485 interface. Medium low-temperature version 3.1 (-40-+50°C).

Combined Panel-Mounted Wattmeter and Varmeter for three-phase networks (models CP8506/33 - 40)

For all models: basic error $\pm 0.5\%$, 2 digital indicators, 2 analog outputs (0-5) mA, (0*5) mA, (4-12-20) mA, (4-20) mA, built-in multi-purpose power unit with input alternating voltage from 80 to 260 V and direct voltage from 105 to 300 V.

On order: integrated RS-485 interface. Medium low-temperature version 3.1 (-40-+50°C).

For all CP8501, CP8506, CP8512 models the following colours of LED indicator are available on order: red, green, yellow; characters height – 20 mm. Replace appropriate measuring transducers and pointer indicators with rise in measurement accuracy. Mounting dimensions: 110x110 mm; 90x90 mm.

Measuring converters of electrical energy parameters

ЭП8542 / EP8542	Alternating Current Measuring Transducer , basic error $\pm 1,0\%$
ЭП8543 / EP8543	Alternating Current Voltage Measuring Transducer, basic error $\pm 1,0\%$
ЭП8527 / EP8527	Alternating current and alternating current voltage Measuring Transducer for operating and overload modes obtains a uniform output signal of alternating current 0-5; 0-5-6,5; 0-5-100 mA. Models: EP8527/1, 2, 4 – 12, single-channel, basic error: $\pm 1\%$ EP8527/3, 13-19*, four-channel, basic error: $\pm 0.25\%$
ЭП8528 / EP8528	Alternating Current Frequency Measuring Transducer, basic error 0.05 % (0.02% on order) Integrated interface RS485 on order for all models.
ЭП8530M/1-8 / EP8530M/1-8	Measuring Transducer of active power and reactive power of three-phase networks (two-element device). Basic error: $\pm 0.5\%$
ЭП8530M/9-16 / EP8530M/9-16	Measuring Transducer of active power of three-phase networks (two-element device). Basic error: $\pm 0.5\%$.
ЭП8530M/17-24 EP8530M/17-24	Measuring Transducer of active power and reactive power of three-phase networks (two-element device). Basic error: $\pm 0.2\%$.
ЭП8530M/25-32 EP8530M/25-32	Measuring Transducer of active power and reactive power of three-phase four-core alternating current networks (a three-element device). Basic error: $\pm 0.2\%$. Integrated interface RS485 on order for all models.
ЭП8554 / EP8554	Single-channel / three-channel Alternating Current Measuring Transducer (a single-range device at each input and also single-channel multirange at input), basic error $\pm 0,5\%$. Integrated interface RS485 on order for all models.
ЭП8555 / EP8555	Single-channel / three-channel Alternating Voltage Measuring Transducer, basic error $\pm 0,5\%$ Integrated interface RS485 on order for all models.
ЭП8556 / EP8556	Direct Current Measuring Transducer, output signal transition time: 0,5 s / 0,005 s (fast-acting), basic error $\pm 0,5\%$ Integrated interface RS485 on order for all models, except EP8556/13, 14.
ЭП8557 / EP8557	Direct Voltage Measuring Transducer, output signal transition time: 0,5 s / 0,005 s (fast-acting), basic error $\pm 0,5\%$ Integrated interface RS485 on order for all models.
ЭП8565 / EP8565	Measuring Transducer of negative phase-sequence (two channels), basic error $\pm 1,0\%$



Designing of non-standard models.

Embodiment of the transducers allows them to be adjusted to switchboard or DIN-rail .

Discounts are available with regard to the order amount.

Digital Panel-Mounted Detectors and Indicators

УП8514 / UP8514

Panel-Mounted Position/Stage Detector (from 1 to 99)

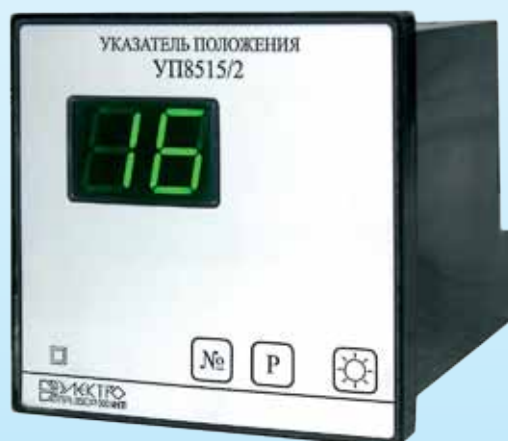


UP8514 can be used instead of a ratiometer of LKM type, error is not normalized.

On order: built-in general-purpose pulse power unit with output direct voltage from 105 to 300 V and alternating voltage from 80 to 260 V, RS-485 interface, LED indicator colour – red, green, yellow (characters height -20 mm).

УП8515 / UP8515

Panel-Mounted Position/Stage Detector (from 1 to 99)



UP8515 operates with a synchro sensor, and replaces synchro receiver and indicating instrument, error is not normalized, power supply transformer 220V/110V included.

On order: integrated RS-485 interface, LED indicator colour – red, green, yellow (characters height - 20 mm).

ИТР8502 / ITR8502

Panel-Mounted Indicator of Rotor Temperature

Intended for transforming two uniform direct current signals of measuring transducers into a digital code; also intended for calculating temperature of generator rotor, indicating it on the digital display and transmitting it via the integrated RS-485 interface. Error is not normalized.

ИПС8503 / IPS8503 ИПР8504 / IPR8504

Indicators of stator current overload IPS8503 and rotor current overload IPR8504

Intended for displaying stator current or generator rotor current respectively, as well as allowed time span from the overload startpoint to the moment of overload termination and for information transmitting via the integrated RS-485 interface. Error is not normalized.

Portable Calibration Units:

УПП8531М/1 / UPP8531M/1

- for calibration of pointer-type and digital ammeters, voltmeters, single-phase wattmeters, three-phase wattmeters and varmeters, alternating current measuring transducers, alternating voltage measuring transducers, two-element and three-element measuring transducers of active power and reactive power;
- basic error: $\pm 0.15\%$;
- telemechanic channel calibration with regard to direct current; basic error: $\pm 0.05\%$.

УПП8531М/2 / UPP8531M/2

- for calibration of pointer-type and digital three-phase wattmeters and varmeters, two-element and three-element measuring transducers of active power and reactive power;
- basic error: $\pm 0.15\%$;
- telemechanic channel calibration with regard to direct current; basic error: $\pm 0.05\%$.

УПП8531М/3 / UPP8531M/3

- for calibration of pointer-type and digital ammeters, voltmeters, single-phase wattmeters, alternating current measuring transducers, alternating voltage measuring transducers;
- basic error: $\pm 0.15\%$;
- telemechanic channel calibration with regard to direct current; basic error: $\pm 0.05\%$.

УПП8531М/4 / UPP8531M/4

- for calibration of pointer-type and digital voltmeters, alternating voltage measuring transducers;
- basic error: $\pm 0.15\%$.

УПП8531М/5 / UPP8531M/5

- for calibration of pointer-type and digital ammeters, alternating current measuring transducers;
- basic error: $\pm 0.15\%$.



Standard Measuring Devices



Voltmeter

ЦБ8500 / CV8500

Multirange Alternating Current Voltmeter.
Basic error $\pm 0.1\%$



Ammeter

ЦА8500 / CA8500

Multirange Alternating Current Ammeter.
Basic error $\pm 0.1\%$



Wattmeter

ЦЛ8516 / CL8516

Multirange and Multifunctional Alternating Current Wattmeter.
Basic error for power measurement: $\pm 0.15\%$ (voltage 0-600V, current 0-10 A), obtains functions of voltmeters D5102, D5103 and ammeters D5099, D5100, D5101. Basic error for voltage and current measurement: $\pm 0.1\%$.

ЦБ8535 / CV8535

Measuring System intended for measurement of voltage drop along wires starting from voltage transformer up to electricity meter for three-phase networks, current transformers and voltage transformers loads, network voltage deviation.
Basic error: $\pm 0.1\%$, $\pm 0.25\%$.

* The production and development of non-standard items is possible on order.



MK8518 / MK8518

Source of Mains Frequency Signals

intended for application in calibration and control automated systems for alternating current frequency measuring transducers, frequency relays, pointer-type and digital frequency-meters within the range from 45 to 65 Hz with discreteness of 0.01 Hz (output sine signal frequency value of the Source differs from the set value on the display no more than ± 0.0005 Hz), output voltage 100 ± 15 V, 230 ± 35 V, 400 ± 60 V and output signal power up to 20 V*A. Integrated RS-232 interface is provided; it enables source control, data communication and transmission as digital code to PC display.

Discounts are available with regard to the order amount





MNPP Electropribor Ltd. was founded in 1990 by leading developers of measuring transducers for electrical power industry and their calibration devices. Activity of the company is licensed. MNPP Electropribor Ltd. holds the License No.66 of measuring instruments manufacture, repair and sale; the License No.1175 of measuring instruments calibration for third-party companies in accordance with the Accreditation Certificate BY/112 02.3.0.0127 and for own needs in accordance with the Registration Certificate No.021BT.

MNPP Electropribor Ltd. develops and produces the following devices:

- current, voltage, frequency, active and reactive power measuring transducers which conform to the State Standards GOST24855 –81 and GOST12997-84;
- panel-mounted digital ammeters, voltmeters, wattmeters, varmeters and digital multi-functional measuring transducers of 0.5 accuracy rating;
- digital ammeters, voltmeters, wattmeters of 0.1 accuracy rating;
- portable calibration units for calibration of measuring transducers, pointer-type and digital instruments of 0.15 accuracy rating and telemechanic channel of 0.05 accuracy rating.

Our company repairs, supports and calibrates own-produced instruments within the warranty period and within the post-warranty period.

Our company has the awards and certificates as a developer and manufacturer of measuring instruments



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